

Continuous Delivery With Docker Containers And Java Ee

Continuous Delivery with Docker and JenkinsPackt Publishing Ltd

Run Docker on AWS and build real-world, secure, and scalable container platforms on cloud Key Features Configure Docker for the ECS environment Integrate Docker with different AWS tools Implement container networking and deployment at scale Book Description Over the last few years, Docker has been the gold standard for building and distributing container applications. Amazon Web Services (AWS) is a leader in public cloud computing, and was the first to offer a managed container platform in the form of the Elastic Container Service (ECS). Docker on Amazon Web Services starts with the basics of containers, Docker, and AWS, before teaching you how to install Docker on your local machine and establish access to your AWS account. You'll then dig deeper into the ECS, a native container management platform provided by AWS that simplifies management and operation of your Docker clusters and applications for no additional cost. Once you have got to grips with the basics, you'll solve key operational challenges, including secrets management and auto-scaling your infrastructure and applications. You'll explore

Download File PDF Continuous Delivery With Docker Containers And Java Ee

alternative strategies for deploying and running your Docker applications on AWS, including Fargate and ECS Service Discovery, Elastic Beanstalk, Docker Swarm and Elastic Kubernetes Service (EKS). In addition to this, there will be a strong focus on adopting an Infrastructure as Code (IaC) approach using AWS CloudFormation. By the end of this book, you'll not only understand how to run Docker on AWS, but also be able to build real-world, secure, and scalable container platforms in the cloud. What you will learn Build, deploy, and operate Docker applications using AWS Solve key operational challenges, such as secrets management Exploit the powerful capabilities and tight integration of other AWS services Design and operate Docker applications running on ECS Deploy Docker applications quickly, consistently, and reliably using IaC Manage and operate Docker clusters and applications for no additional cost Who this book is for Docker on Amazon Web Services is for you if you want to build, deploy, and operate applications using the power of containers, Docker, and Amazon Web Services. Basic understanding of containers and Amazon Web Services or any other cloud provider will be helpful, although no previous experience of working with these is required.

Viktor Farcic's latest book, *The DevOps 2.1 Toolkit: Docker Swarm*, shows you how to successfully integrate Docker Swarm into your DevOps toolset.

Download File PDF Continuous Delivery With Docker Containers And Java Ee

About This Book Expand your DevOps Toolkit with the DevOps thought leader, Viktor Farcic Build, test, deploy, and monitor services inside Docker Swarm clusters Translate your understanding to different hosting providers like AWS, Azure, and DigitalOcean Go beyond simple deployment to explore how to create a continuous deployment process Extend the deep understanding you gained from Viktor's DevOps 2.0 Toolkit book Who This Book Is For This book is for professionals interested in the full microservices life cycle combined with continuous deployment and containers. Target audience could be architects who want to know how to design their systems around microservices. It could be DevOps wanting to know how to apply modern configuration management practices and continuously deploy applications packed in containers. It is for developers who would like to take the process back into their hands as well as for managers who would like to gain a better understanding of the process used to deliver software from the beginning to the end. This book is for everyone wanting to know more about the software development life cycle starting from requirements and design, through the development and testing all the way until deployment and post-deployment phases. We'll create the processes taking into account the best practices developed by and for some of the biggest companies. What You Will Learn Learn all aspects of Docker Swarm from

Download File PDF Continuous Delivery With Docker Containers And Java Ee

building, testing, deploying, and monitoring services inside Docker Swarm clusters, available since Docker 1.12. Master the deeper logic of DevOps with Viktor, so that you can successfully apply that logic across any specific set of tools you're working with. Translate a deep understanding to different hosting providers like AWS, Azure, DigitalOcean, among others. You'll go beyond simple deployment: you will explore with Viktor how to create a continuous deployment process. Accomplish zero-downtime deployments, and what to do in case of a failover. Know how to run services at scale, how to monitor the systems, and how to make it heal itself. In Detail Viktor Farcic's latest book, *The DevOps 2.1 Toolkit: Docker Swarm*, takes you deeper into one of the major subjects of his international best seller, *The DevOps 2.0 Toolkit*, and shows you how to successfully integrate Docker Swarm into your DevOps toolset. Viktor shares with you his expert knowledge in all aspects of building, testing, deploying, and monitoring services inside Docker Swarm clusters. You'll go through all the tools required for running a cluster. You'll travel through the whole process with clusters running locally on a laptop. Once you're confident with that outcome, Viktor shows you how to translate your experience to different hosting providers like AWS, Azure, and DigitalOcean. Viktor has updated his DevOps 2.0 framework in this book to use the latest and greatest

Download File PDF Continuous Delivery With Docker Containers And Java Ee

features and techniques introduced in Docker. We'll go through many practices and even more tools. While there will be a lot of theory, this is a hands-on book. You won't be able to complete it by reading it on the metro on your way to work. You'll have to read this book while in front of the computer and get your hands dirty. Style and approach We'll go through many practices and even more tools. While there will be a lot of theory, this is a hands-on book. You'll have to read this book while in front of the computer and get your hands dirty. The goal is not to master one particular set of tools, but to learn the logic behind them so that you can apply it to your job in various contexts.

An exploration of continuous deployment to a Kubernetes cluster, using a wide range of Kubernetes platforms with instructions on how to develop a pipeline on a few of the most commonly used CI/CD platforms. Key Features The fifth book of DevOps expert Viktor Farcic's bestselling DevOps Toolkit series, with a discussion of the difference between continuous delivery vs. continuous deployment, and which is best for the user Guides readers through the continuous deployment process using Jenkins in a Kubernetes cluster Provides an overview of the best practices for building, testing, and deploying applications through fully automated pipelines. Book Description Building on The DevOps 2.3 Toolkit: Kubernetes, Viktor Farcic brings his

Download File PDF Continuous Delivery With Docker Containers And Java Ee

latest exploration of the Docker technology as he records his journey to continuously deploying applications with Jenkins into a Kubernetes cluster. The DevOps 2.4 Toolkit: Continuously Deploying Applications with Jenkins to a Kubernetes Cluster is the latest book in Viktor Farcic's series that helps you build a full DevOps Toolkit. This book guides readers through the process of building, testing, and deploying applications through fully automated pipelines. Within this book, Viktor will cover a wide-range of emerging topics, including an exploration of continuous delivery and deployment in Kubernetes using Jenkins. It also shows readers how to perform continuous integration inside these clusters, and discusses the distribution of Kubernetes applications, as well as installing and setting up Jenkins. Work with Viktor and dive into the creation of self-adaptive and self-healing systems within Docker. What you will learn Gain an understanding of continuous deployment Learn how to build, test, and deploy applications into Kubernetes Execute continuous integration inside containers Who this book is for Readers with an intermediate level understanding of Kubernetes and hands-on experience.

Summary Docker in Practice, Second Edition presents over 100 practical techniques, hand-picked to help you get the most out of Docker. Following a Problem/Solution/Discussion format, you'll walk

Download File PDF Continuous Delivery With Docker Containers And Java Ee

through specific examples that you can use immediately, and you'll get expert guidance on techniques that you can apply to a whole range of scenarios. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Docker's simple idea-wrapping an application and its dependencies into a single deployable container-created a buzz in the software industry. Now, containers are essential to enterprise infrastructure, and Docker is the undisputed industry standard. So what do you do after you've mastered the basics? To really streamline your applications and transform your dev process, you need relevant examples and experts who can walk you through them. You need this book. About the Book Docker in Practice, Second Edition teaches you rock-solid, tested Docker techniques, such as replacing VMs, enabling microservices architecture, efficient network modeling, offline productivity, and establishing a container-driven continuous delivery process. Following a cookbook-style problem/solution format, you'll explore real-world use cases and learn how to apply the lessons to your own dev projects. What's inside Continuous integration and delivery The Kubernetes orchestration tool Streamlining your cloud workflow Docker in swarm mode Emerging best practices and techniques About the Reader Written for developers and engineers using Docker

Download File PDF Continuous Delivery With Docker Containers And Java Ee

in production. About the Author Ian Miell and Aidan Hobson Sayers are seasoned infrastructure architects working in the UK. Together, they used Docker to transform DevOps at one of the UK's largest gaming companies. Table of Contents

PART 1 - DOCKER FUNDAMENTALS Discovering Docker
Understanding Docker: Inside the engine room

PART 2 - DOCKER AND DEVELOPMENT Using Docker as a lightweight virtual machine
Building images
Running containers
Day-to-day Docker
Configuration management: Getting your house in order

PART 3 - DOCKER AND DEVOPS Continuous integration: Speeding up your development pipeline
Continuous delivery: A perfect fit for Docker
principles
Network simulation: Realistic environment testing without the pain

PART 4 - ORCHESTRATION FROM A SINGLE MACHINE TO THE CLOUD A primer on container orchestration
The data center as an OS with Docker
Docker platforms

PART 5 - DOCKER IN PRODUCTION
Docker and security
Plain sailing: Running Docker in production
Docker in production: Dealing with challenges

Using Continuous Delivery, you can bring software into production more rapidly, with greater reliability. A Practical Guide to Continuous Delivery is a 100% practical guide to building Continuous Delivery pipelines that automate rollouts, improve reproducibility, and dramatically reduce risk.

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Eberhard Wolff introduces a proven Continuous Delivery technology stack, including Docker, Chef, Vagrant, Jenkins, Graphite, the ELK stack, JBehave, and Gatling. He guides you through applying these technologies throughout build, continuous integration, load testing, acceptance testing, and monitoring. Wolff's start-to-finish example projects offer the basis for your own experimentation, pilot programs, and full-fledged deployments. A Practical Guide to Continuous Delivery is for everyone who wants to introduce Continuous Delivery, with or without DevOps. For managers, it introduces core processes, requirements, benefits, and technical consequences. Developers, administrators, and architects will gain essential skills for implementing and managing pipelines, and for integrating Continuous Delivery smoothly into software architectures and IT organizations. Understand the problems that Continuous Delivery solves, and how it solves them Establish an infrastructure for maximum software automation Leverage virtualization and Platform as a Service (PAAS) cloud solutions Implement build automation and continuous integration with Gradle, Maven, and Jenkins Perform static code reviews with SonarQube and repositories to store build artifacts Establish automated GUI and textual acceptance testing with behavior-driven design Ensure appropriate performance via capacity testing Check new features

Download File PDF Continuous Delivery With Docker Containers And Java Ee

and problems with exploratory testing Minimize risk throughout automated production software rollouts Gather and analyze metrics and logs with Elasticsearch, Logstash, Kibana (ELK), and Graphite Manage the introduction of Continuous Delivery into your enterprise Architect software to facilitate Continuous Delivery of new capabilities

"The combination of Docker and Jenkins improves your Continuous Delivery pipeline using fewer resources. It also helps you scale up your builds, automate tasks, and speed up Jenkins' performance with the benefits of Docker containerization. This course will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of app development. We start with setting up a Docker server and configuring Jenkins on it. Next, you'll work through the steps to build applications on Docker files and integrate them with Jenkins using continuous delivery processes such as continuous integration and automated acceptance testing."--Resource description page.

A practical guide to rapidly and efficiently mastering Docker containers, along with tips and tricks learned in the field. About This Book Use Docker containers, horizontal node scaling, modern orchestration tools (Docker Swarm, Kubernetes, and Mesos) and Continuous Integration/Continuous Delivery to manage your infrastructure. Increase service density

Download File PDF Continuous Delivery With Docker Containers And Java Ee

by turning often-idle machines into hosts for numerous Docker services. Learn what it takes to build a true container infrastructure that is scalable, reliable, and resilient in the face of increased complexities from using container infrastructures. Find out how to identify, debug, and mitigate most real-world, undocumented issues when deploying your own Docker infrastructure. Learn tips and tricks of the trade from existing Docker infrastructures running in production environments. Who This Book Is For This book is aimed at system administrators, developers, DevOps engineers, and software engineers who want to get concrete, hands-on experience deploying multi-tier web applications and containerized microservices using Docker. This book is also for anyone who has worked on deploying services in some fashion and wants to take their small-scale setups to the next level (or simply to learn more about the process). What You Will Learn Set up a working development environment and create a simple web service to demonstrate the basics Learn how to make your service more usable by adding a database and an app server to process logic Add resilience to your services by learning how to horizontally scale with a few containers on a single node Master layering isolation and messaging to simplify and harden the connectivity between containers Learn about numerous issues encountered at scale and their workarounds, from

Download File PDF Continuous Delivery With Docker Containers And Java Ee

the kernel up to code versioning Automate the most important parts of your infrastructure with continuous integration In Detail Deploying Docker into production is considered to be one of the major pain points in developing large-scale infrastructures, and the documentation available online leaves a lot to be desired. With this book, you will learn everything you wanted to know to effectively scale your deployments globally and build a resilient, scalable, and containerized cloud platform for your own use. The book starts by introducing you to the containerization ecosystem with some concrete and easy-to-digest examples; after that, you will delve into examples of launching multiple instances of the same container. From there, you will cover orchestration, multi-node setups, volumes, and almost every relevant component of this new approach to deploying services. Using intertwined approaches, the book will cover battle-tested tooling, or issues likely to be encountered in real-world scenarios, in detail. You will also learn about the other supporting components required for a true PaaS deployment and discover common options to tie the whole infrastructure together. At the end of the book, you learn to build a small, but functional, PaaS (to appreciate the power of the containerized service approach) and continue to explore real-world approaches to implementing even larger global-scale services. Style and approach This in-depth learning

Download File PDF Continuous Delivery With Docker Containers And Java Ee

guide shows you how to deploy your applications in production using Docker (from the basic steps to advanced concepts) and how to overcome challenges in Docker-based infrastructures. The book also covers practical use-cases in real-world examples, and provides tips and tricks on the various topics.

Secure your applications and development environments with Docker and Kubernetes

Key Features

- Introducing Container platforms (Docker, Kubernetes, Swarm, OpenShift)
- Discover how to manage high availability with Docker Swarm and Kubernetes
- Learn how Docker can manage the security in images and containers
- Discover how Docker can be integrated into development workflows in applications
- Discover vulnerabilities in the Docker containers and images with practical examples to secure your container-based applications
- Discover tools for monitoring and administration Docker and Kubernetes applications

Description

Through this book, we will introduce the DevOps tools ecosystem and the main containers orchestration tools through an introduction to some platforms such as Kubernetes, Docker Swarm, and OpenShift. Among other topics, both good practices will be addressed when constructing the Docker images as well as best security practices to be applied at the level of the host in which those containers are executed, from

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Docker's own daemon to the rest of the components that make up its technological stack. We will review the topics such as static analysis of vulnerabilities on Docker images, the signing of images with Docker Content Trust and their subsequent publication in a Docker Registry will be addressed. Also, we will review the security state in Kubernetes. In the last section, we will review container management and administration open source tools for IT organizations that need to manage and monitor container-based applications, reviewing topics such as monitoring, administration, and networking in Docker. What will you learn?

- Learn fundamental DevOps skills and tools, starting with the basic components and concepts of Docker.
- Learn about Docker as a platform for the deployment of containers and Docker images taking into account the security of applications.
- Learn about tools that allow us to audit the security of the machine where we execute Docker images, finding out how to secure your Docker host.
- Learn how to secure your Docker environment and discover vulnerabilities and threats in Docker images.
- Learn about creating and deploying containers in a security way with Docker and Kubernetes.
- Learn about monitoring and administration in Docker with tools such as cadvisor, sysdig, portainer, and Rancher.

Who this book is for
This book covers different techniques to help developers improve DevOps and container security

Download File PDF Continuous Delivery With Docker Containers And Java Ee

skills and can be useful for people who are involved in software development and want to learn how Docker works from a security point of view. It is recommended that readers have the knowledge about UNIX commands and they work with commands terminal. Table of Contents

1. Getting started with DevOps
2. Container platforms
3. Managing Containers and Docker images
4. Getting started with Docker security
5. Docker host security
6. Docker images security
7. Auditing and analyzing vulnerabilities in Docker containers
8. Kubernetes security
9. Docker container networking
10. Docker container monitoring
11. Docker container administration

About the Author Jose Manuel Ortega is a software engineer and security researcher with a special focus on new technologies, open source, security and testing. In recent years, he is interested in security development, especially with Python and security best practices with Docker and Kubernetes. Conferences and talks related with python, security and docker are available on his personal website <http://jmortega.github.io>. Your Blog links: <http://jmortega.github.io/> Your LinkedIn Profile: <https://www.linkedin.com/in/jmortega1/>

Sharpen your DevOps knowledge with DevOps Bootcamp About This Book Improve your organization's performance to ensure smooth production of software and services. Learn how Continuous Integration and Continuous Delivery

Download File PDF Continuous Delivery With Docker Containers And Java Ee

practices can be utilized to cultivate the DevOps culture. A fast-paced guide filled with illustrations and best practices to help you consistently ship quality software. Who This Book Is For The book is aimed at IT Developers and Operations—administrators who want to quickly learn and implement the DevOps culture in their organization. What You Will Learn Static Code Analysis using SONarqube Configure a Maven-based JEE Web Application Perform Continuous Integration using Jenkins and VSTS Install and configure Docker Converge a Chef node using a Chef workstation Accomplish Continuous Delivery in Microsoft Azure VM and Microsoft Azure App Services (Azure Web Apps) using Jenkins Perform Load Testing using Apache JMeter Build and Release Automation using Visual Studio Team Services Monitor Cloud-based resources In Detail DevOps Bootcamp delivers practical learning modules in manageable chunks. Each chunk is delivered in a day, and each day is a productive one. Each day builds your competency in DevOps. You will be able to take the task you learn every day and apply it to cultivate the DevOps culture. Each chapter presents core concepts and key takeaways about a topic in DevOps and provides a series of hands-on exercises. You will not only learn the importance of basic concepts or practices of DevOps but also how to use different tools to automate

Download File PDF Continuous Delivery With Docker Containers And Java Ee

application lifecycle management. We will start off by building the foundation of the DevOps concepts. On day two, we will perform Continuous Integration using Jenkins and VSTS both by configuring Maven-based JEE Web Application?. We will also integrate Jenkins and Sonar qube for Static Code Analysis. Further, on day three, we will focus on Docker containers where we will install and configure Docker and also create a Tomcat Container to deploy our Java based web application. On day four, we will create and configure the environment for application deployment in AWS and Microsoft Azure Cloud for which we will use Infrastructure as a Service and Open Source Configuration Management tool Chef. For day five, our focus would be on Continuous Delivery. We will automate application deployment in Docker container using Jenkins Plugin, AWS EC2 using Script, AWS Elastic Beanstalk using Jenkins Plugin, Microsoft Azure VM using script, and Microsoft Azure App Services Using Jenkins. We will also configure Continuous Delivery using VSTS. We will then learn the concept of Automated Testing on day six using Apache JMeter and URL-based tests in VSTS. Further, on day seven, we will explore various ways to automate application lifecycle management using orchestration. We will see how Pipeline can be created in Jenkins and VSTS, so the moment Continuous? Integration is completed successfully, Continuous Delivery will start and

Download File PDF Continuous Delivery With Docker Containers And Java Ee

application will be deployed. On the final day, our focus would be on Security access to Jenkins and Monitoring of CI resources, and cloud-based resources in AWS and Microsoft Azure Platform as a Service. Style and Approach This book is all about fast and intensive learning. This means we don't waste time in helping readers get started. The new content is basically about filling in with highly-effective examples to build new things, solving problems in newer and unseen ways, and solving real-world examples.

Summary The best way to learn microservices development is to build something! Bootstrapping Microservices with Docker, Kubernetes, and Terraform guides you from zero through to a complete microservices project, including fast prototyping, development, and deployment. You'll get your feet wet using industry-standard tools as you learn and practice the practical skills you'll use for every microservices application. Following a true bootstrapping approach, you'll begin with a simple, familiar application and build up your knowledge and skills as you create and deploy a real microservices project. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Taking microservices from proof of concept to production is a complex, multi-step operation relying on tools like Docker, Terraform, and Kubernetes for packaging

Download File PDF Continuous Delivery With Docker Containers And Java Ee

and deployment. The best way to learn the process is to build a project from the ground up, and that's exactly what you'll do with this book! About the book In Bootstrapping Microservices with Docker, Kubernetes, and Terraform, author Ashley Davis lays out a comprehensive approach to building microservices. You'll start with a simple design and work layer-by-layer until you've created your own video streaming application. As you go, you'll learn to configure cloud infrastructure with Terraform, package microservices using Docker, and deploy your finished project to a Kubernetes cluster. What's inside Developing and testing microservices applications Working with cloud providers Applying automated testing Implementing infrastructure as code and setting up a continuous delivery pipeline Monitoring, managing, and troubleshooting About the reader Examples are in JavaScript. No experience with microservices, Kubernetes, Terraform, or Docker required. About the author Ashley Davis is a software developer, entrepreneur, stock trader, and the author of Manning's Data Wrangling with JavaScript. Table of Contents 1 Why microservices? 2 Creating your first microservice 3 Publishing your first microservice 4 Data management for microservices 5 Communication between microservices 6 Creating your production environment 7 Getting to continuous delivery 8 Automated testing for microservices 9 Exploring

Download File PDF Continuous Delivery With Docker Containers And Java Ee

FlixTube 10 Healthy microservices 11 Pathways to scalability

Manage Linux Servers on-premises and cloud with advanced DevOps techniques using Kubernetes

KEY FEATURES ? Detailed coverage on architecture of Web Servers, Databases, and Cloud Servers. ? Practical touch on deploying your application and managing cloud infrastructure using Docker and Terraform. ? Simplified implementation of Infrastructure as Code with Vagrant. ? Explore the use of different cloud services for better provisioning, scalability, and reliability of enterprise applications.

DESCRIPTION Hands-on DevOps with Linux brings you advanced learnings on how to make the best use of Linux commands in managing the DevOps infrastructure to keep enterprise applications up-to-date. The book begins by introducing you to the Linux world with the most used commands by DevOps experts and teaches how to set up your own infrastructure in your environment. The book covers exclusive coverage on production scenarios using Kubernetes and how the entire container orchestration is managed. Throughout the book, you will get accustomed to the most widely used techniques among DevOps Engineers in their routine. You will explore how infrastructure as code works, working with Vagrant, Docker and Terraform through which you can manage the entire cloud deployment of applications along with how to scale

Download File PDF Continuous Delivery With Docker Containers And Java Ee

them on your own. WHAT YOU WILL LEARN ?

Create Infrastructure as Code to replicate the configuration to your infrastructure. ? Learn best methods and techniques to build continuous delivery pipeline using Jenkins. ? Learn to Distribute and scale your applications using Kubernetes. ? Get insights by analyzing millions of server logs using Kibana and Logstash. WHO THIS BOOK IS FOR

This book is best suited for DevOps Engineers and DevOps professionals who want to make best use of Linux commands in managing the DevOps infrastructure daily. It is a good handy guide for Linux administrators and system administrators too to get familiar with the use of Linux in Devops and advance their skillset in DevOps. TABLE OF CONTENTS 1.

Getting started with Linux 2. Working with Bash 3. Setting up a service 4. Configuring a reverse proxy with Nginx 5. Deploying your application using Docker 6. Automating your Infrastructure as Code 7. Creating your infrastructure using cloud services 8. Working with Terraform 9. Working with Git 10. Continuous integration and Continuous Delivery using Jenkins 11. Deploying and scaling your application using Kubernetes 12. Logs with open source Tools

GitOps and Kubernetes is half reference, half practical tutorial for operating Kubernetes the GitOps way. Through fast-paced chapters, you'll unlock the benefits of GitOps for flexible configuration

Download File PDF Continuous Delivery With Docker Containers And Java Ee

management, monitoring, robustness, multi-environment support, and discover tricks and tips for managing secrets in the unique GitOps fashion. GitOps and Kubernetes introduces a radical idea--managing your infrastructure with the same Git pull requests you use to manage your codebase. In this in-depth tutorial, you'll learn to operate infrastructures based on powerful-but-complex technologies with the same Git version control tools most developers use daily. GitOps and Kubernetes is half reference, half practical tutorial for operating Kubernetes the GitOps way. Through fast-paced chapters, you'll unlock the benefits of GitOps for flexible configuration management, monitoring, robustness, multi-environment support, and discover tricks and tips for managing secrets in the unique GitOps fashion. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Book + Content Update Program “Beyond just describing the basics, this book dives into best practices every aspiring microservices developer or architect should know.” —Foreword by Corey Sanders, Partner Director of Program Management, Azure Microservice-based applications enable unprecedented agility and ease of management, and Docker containers are ideal for building them. Microsoft Azure offers all the foundational technology and higher-level services you need to

Download File PDF Continuous Delivery With Docker Containers And Java Ee

develop and run any microservices application. Microservices with Docker on Microsoft Azure brings together essential knowledge for creating these applications from the ground up, or incrementally deconstructing monolithic applications over time. The authors draw on their pioneering experience helping to develop Azure's microservices features and collaborating with Microsoft product teams who've relied on microservices architectures for years. They illuminate the benefits and challenges of microservices development and share best practices all developers and architects should know. You'll gain hands-on expertise through a detailed sample application, downloadable at github.com/flakio/flakio.github.io. Step by step, you'll walk through working with services written in Node.js, Go, and ASP.NET 5, using diverse data stores (mysql, elasticsearch, block storage). The authors guide you through using Docker Hub as a service registry, and Microsoft Azure Container service for cluster management and service orchestration. Coverage includes: Recognizing how microservices architectures are different, and when they make sense Understanding Docker containers in the context of microservices architectures Building, pulling, and layering Docker images Working with Docker volumes, containers, images, tags, and logs Using Docker Swarm, Docker Compose, and Docker Networks Creating Docker

Download File PDF Continuous Delivery With Docker Containers And Java Ee

hosts using the Azure portal, Azure Resource Manager, the command line, docker-machine, or locally via Docker toolbox Establishing development and DevOps environments to support microservices applications Making the most of Docker's continuous delivery options Using Azure's cluster and container orchestration capabilities to operate and scale containerized microservices applications with maximum resilience Monitoring microservices applications with Azure Diagnostics, Visual Studio Application Insights, and Microsoft Operations Management Suite Developing microservices applications faster and more effectively with Azure Service Fabric An extensive sample application demonstrating the microservices concepts discussed throughout the book is available online In addition, this book is part of InformIT's exciting new Content Update Program, which provides content updates for major technology improvements! As significant updates are made to Docker and Azure, sections of this book will be updated or new sections will be added to match the updates to the technologies. As updates become available, they will be delivered to you via a free Web Edition of this book, which can be accessed with any Internet connection. To learn more, visit informit.com/cup. How to access the Web Edition: Follow the instructions inside to learn how to register your book to access the FREE Web Edition. Continuous delivery adds enormous value to the

Download File PDF Continuous Delivery With Docker Containers And Java Ee

business and the entire software delivery lifecycle, but adopting this practice means mastering new skills typically outside of a developer's comfort zone. In this practical book, Daniel Bryant and Abraham Marín-Pérez provide guidance to help experienced Java developers master skills such as architectural design, automated quality assurance, and application packaging and deployment on a variety of platforms. Not only will you learn how to create a comprehensive build pipeline for continually delivering effective software, but you'll also explore how Java application architecture and deployment platforms have affected the way we rapidly and safely deliver new software to production environments. Get advice for beginning or completing your migration to continuous delivery

Design architecture to enable the continuous delivery of Java applications Build application artifacts including fat JARs, virtual machine images, and operating system container (Docker) images Use continuous integration tooling like Jenkins, PMD, and find-sec-bugs to automate code quality checks Create a comprehensive build pipeline and design software to separate the deploy and release processes Explore why functional and system quality attribute testing is vital from development to delivery Learn how to effectively build and test applications locally and observe your system while it runs in production

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Understand various tools and practices for building a continuous integration and delivery pipeline effectively Key Features Get up and running with the patterns of continuous integration Learn Jenkins UI for developing plugins and build an effective Jenkins pipeline Automate CI/CD with command-line tools and scripts Book Description Hands-On Continuous Integration and Delivery starts with the fundamentals of continuous integration (CI) and continuous delivery (CD) and where it fits in the DevOps ecosystem. You will explore the importance of stakeholder collaboration as part of CI/CD. As you make your way through the chapters, you will get to grips with Jenkins UI, and learn to install Jenkins on different platforms, add plugins, and write freestyle scripts. Next, you will gain hands-on experience of developing plugins with Jenkins UI, building the Jenkins 2.0 pipeline, and performing Docker integration. In the concluding chapters, you will install Travis CI and Circle CI and carry out scripting, logging, and debugging, helping you to acquire a broad knowledge of CI/CD with Travis CI and CircleCI. By the end of this book, you will have a detailed understanding of best practices for CI/CD systems and be able to implement them with confidence. What you will learn Install Jenkins on multiple operating systems Work with Jenkins freestyle scripts, pipeline syntax, and methodology Explore Travis CI build life cycle events and multiple

Download File PDF Continuous Delivery With Docker Containers And Java Ee

build languages Master the Travis CI CLI (command-line interface) and automate tasks with the CLI Use CircleCI CLI jobs and work with pipelines Automate tasks using CircleCI CLI and learn to debug and troubleshoot Learn open source tooling such as Git and GitHub Install Docker and learn concepts in shell scripting Who this book is for Hands-On Continuous Integration and Delivery is for system administrators, DevOps engineers, and build and release engineers who want to understand the concept of CI and gain hands-on experience working with prominent tools in the CI ecosystem. Basic knowledge of software delivery is an added advantage.

"The combination of Docker and Jenkins improves your Continuous Delivery pipeline using fewer resources. It also helps you scale up your builds, automate tasks, and speed up Jenkins performance with the benefits of Docker containerization. This course explains continuous delivery pipelines in depth and improve the continuous integration and delivery process of app development. It starts with managing configuration using Ansible. Then we build a complete Continuous Delivery pipeline. Finally we present a mixture of different aspects related to the Continuous Delivery process."--Resource description page.

An exploration of continuous deployment to a Kubernetes cluster, using a wide range of Kubernetes platforms with instructions on how to develop a pipeline on a few of the most commonly used CI/CD

Download File PDF Continuous Delivery With Docker Containers And Java Ee

platforms. Key Features* The fifth book of DevOps expert Viktor Farcic's bestselling DevOps Toolkit series, with a discussion of the difference between continuous delivery vs. continuous deployment, and which is best for the user* Guides readers through the continuous deployment process using Jenkins in a Kubernetes cluster* Provides an overview of the best practices for building, testing, and deploying applications through fully automated pipelines. Book Description Building on The DevOps 2.3 Toolkit: Kubernetes, Viktor Farcic brings his latest exploration of the Docker technology as he records his journey to continuously deploying applications with Jenkins into a Kubernetes cluster. The DevOps 2.4 Toolkit: Continuously Deploying Applications with Jenkins to a Kubernetes Cluster is the latest book in Viktor Farcic's series that helps you build a full DevOps Toolkit. This book guides readers through the process of building, testing, and deploying applications through fully automated pipelines. Within this book, Viktor will cover a wide-range of emerging topics, including an exploration of continuous delivery and deployment in Kubernetes using Jenkins. It also shows readers how to perform continuous integration inside these clusters, and discusses the distribution of Kubernetes applications, as well as installing and setting up Jenkins. Work with Viktor and dive into the creation of self-adaptive and self-healing systems within Docker. What you will learn* Gain an understanding of continuous deployment* Learn how to build, test, and deploy applications into Kubernetes* Execute continuous integration inside containers Who this book is for Readers with an intermediate level

Download File PDF Continuous Delivery With Docker Containers And Java Ee

understanding of Kubernetes and hands-on experience. Leverage the power of Ansible 2 and related tools and scale DevOps processes About This Book Learn how to use Ansible playbooks along with YAML and JINJA to create efficient DevOps solutions Use Ansible to provision and automate Docker containers and images Learn the fundamentals of Continuous Integration and Continuous Delivery and how to leverage Ansible to implement these modern DevOps Learn the fundamentals of creating custom Ansible modules Learn the fundamentals of Ansible Galaxy Follow along step-by-step as we teach you to scale Ansible for your DevOps processes Who This Book Is For If you are a DevOps engineer, administrator, or developer and want to implement the DevOps environment in your organization using Ansible, then this book is for you. What You Will Learn Get to the grips with the fundamentals of Ansible 2.2 and how you can benefit from leveraging Ansible for DevOps. Adapt the DevOps process and learn how Ansible and other tools can be used to automate it. Start automating Continuous Integration and Continuous Delivery tasks using Ansible Maximize the advantages of tools such as Docker, Jenkins, JIRA, and many more to implement the DevOps culture. Integrate DevOps tools with Ansible Extend Ansible using Python and create custom modules that integrate with unique specific technology stacks Connect and control the states of various third-party applications such as GIT, SVN, Artifactory, Nexus, Jira, Hipchat, Slack, Nginx, and others In Detail Thinking about adapting the DevOps culture for your organization using a very simple, yet

Download File PDF Continuous Delivery With Docker Containers And Java Ee

powerful automation tool, Ansible 2? Then this book is for you! In this book, you will start with the role of Ansible in the DevOps module, which covers fundamental DevOps practices and how Ansible is leveraged by DevOps organizations to implement consistent and simplified configuration management and deployment. You will then move on to the next module, Ansible with DevOps, where you will understand Ansible fundamentals and how Ansible Playbooks can be used for simple configuration management and deployment tasks. After simpler tasks, you will move on to the third module, Ansible Syntax and Playbook Development, where you will learn advanced configuration management implementations, and use Ansible Vault to secure top-secret information in your organization. In this module, you will also learn about popular DevOps tools and the support that Ansible provides for them (MYSQL, NGINX, APACHE and so on). The last module, Scaling Ansible for the enterprise, is where you will integrate Ansible with CI and CD solutions and provision Docker containers using Ansible. By the end of the book you will have learned to use Ansible to leverage your DevOps tasks.

Style and approach A step-by-step guide to automating all DevOps stages with ease using Ansible Follow this step-by-step guide for creating a continuous delivery pipeline using all of the new features in Jenkins 2.0 such as Pipeline as a Code, multi-branch pipeline, and more. You will learn three crucial elements for achieving a faster software delivery pipeline: a fungible build/test environment, manageable and reproducible pipelines, and a scalable build/test infrastructure. Pro

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Continuous Delivery demonstrates how to create a highly available, active/passive Jenkins server using some niche technologies. What You'll Learn Create a highly available, active/passive Jenkins server using CoreOS and Docker, and using Pacemaker and Corosync Use a Jenkins multi-branch pipeline to automatically perform continuous integration whenever there is a new branch in your source control system Describe your continuous delivery pipeline with Jenkinsfile Host Jenkins server on a cloud solution Run Jenkins inside a container using Docker Discover how the distributed nature of Git and the “merge before build” feature of Jenkins can be used to implement gated check-in Implement a scalable build farm using Docker and Kubernetes Who This Book Is For You have experience implementing continuous integration and continuous delivery using Jenkins freestyle Jobs and wish to use the new Pipeline as a Code feature introduced in Jenkins 2.0 Your source code is on a Git-like version control system (Git, GitHub, GitLab, etc.) and you wish to leverage the advantages of a multi-branch pipeline in Jenkins Your infrastructure is on a Unix-like platform and you wish to create a scalable, distributed build/test farm using Docker or Kubernetes You are in need of a highly available system for your Jenkins Server using open source tools and technologies Use DevOps principles with Google Cloud Platform (GCP) to develop applications and services. This book builds chapter by chapter to a complete real-life scenario, explaining how to build, monitor, and maintain a complete application using DevOps in practice. Starting with core DevOps concepts, continuous

Download File PDF Continuous Delivery With Docker Containers And Java Ee

integration, and continuous delivery, you'll cover common tools including Jenkins, Docker, and Kubernetes in the context of a real microservices application to deploy in the cloud. You will also create a monitor for your cloud and see how to use its data to prevent errors and improve the stability of the system. By the end of Pro DevOps with Google Cloud Platform, you will be able to deploy, maintain, and monitor a real application with GCP. What You Will Learn Build and deploy applications and services using DevOps on Google Cloud Platform Maintain a complete continuous integration (CI) and continuous delivery (CD) pipeline Use containerization with Docker and Kubernetes Carry out CD with GCP and Jenkins Create microservices with Jenkins, Docker, and Kubernetes Monitor your newly deployed application and its deployment and performance Set up security and manage your network with GCP Who This Book Is For Developers and software architects who want to implement DevOps in practice. Some prior programming experience is recommended as well as a basic knowledge of a Linux command-line environment.

Leverage the lethal combination of Docker and Kubernetes to automate deployment and management of Java applications About This Book Master using Docker and Kubernetes to build, deploy and manage Java applications in a jiff Learn how to create your own Docker image and customize your own cluster using Kubernetes Empower the journey from development to production using this practical guide. Who This Book Is For The book is aimed at Java developers who are eager

Download File PDF Continuous Delivery With Docker Containers And Java Ee

to build, deploy, and manage applications very quickly using container technology. They need have no knowledge of Docker and Kubernetes. What You Will Learn Package Java applications into Docker images Understand the running of containers locally Explore development and deployment options with Docker Integrate Docker into Maven builds Manage and monitor Java applications running on Kubernetes clusters Create Continuous Delivery pipelines for Java applications deployed to Kubernetes In Detail Imagine creating and testing Java EE applications on Apache Tomcat Server or Wildfly Application server in minutes along with deploying and managing Java applications swiftly. Sounds too good to be true? But you have a reason to cheer as such scenarios are only possible by leveraging Docker and Kubernetes. This book will start by introducing Docker and delve deep into its networking and persistent storage concepts. You will then proceed to learn how to refactor monolith application into separate services by building an application and then packaging it into Docker containers. Next, you will create an image containing Java Enterprise Application and later run it using Docker. Moving on, the book will focus on Kubernetes and its features and you will learn to deploy a Java application to Kubernetes using Maven and monitor a Java application in production. By the end of the book, you will get hands-on with some more advanced topics to further extend your knowledge about Docker and Kubernetes. Style and approach An easy-to-follow, practical guide that will help Java developers develop, deploy, and manage Java applications

Download File PDF Continuous Delivery With Docker Containers And Java Ee

efficiently.

Create a complete Continuous Delivery process using modern DevOps tools such as Docker, Kubernetes, Jenkins, Docker Hub, Ansible, GitHub and many more.

Key Features Build reliable and secure applications using Docker containers. Create a highly available environment to scale a Docker servers using Kubernetes

Implement advance continuous delivery process by parallelizing the pipeline tasks

Book Description Continuous Delivery with Docker and Jenkins, Second Edition will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of an app development. It will start with setting up a Docker server and configuring Jenkins on it.

It will then provide steps to build applications on Docker files and integrate them with Jenkins using continuous delivery processes such as continuous integration, automated acceptance testing, and configuration management. Moving on, you will learn how to ensure quick application deployment with Docker containers

along with scaling Jenkins using Kubernetes. Next, you will get to know how to deploy applications using Docker images and testing them with Jenkins. Towards the end, the book will touch base with missing parts of the CD pipeline, which are the environments and infrastructure,

application versioning, and nonfunctional testing. By the end of the book, you will be enhancing the DevOps workflow by integrating the functionalities of Docker and Jenkins. What you will learn

Get to grips with docker fundamentals and how to dockerize an application for the CD process Learn how to use Jenkins on the Cloud

Download File PDF Continuous Delivery With Docker Containers And Java Ee

environments Scale a pool of Docker servers using Kubernetes Create multi-container applications using Docker Compose Write acceptance tests using Cucumber and run them in the Docker ecosystem using Jenkins Publish a built Docker image to a Docker Registry and deploy cycles of Jenkins pipelines using community best practices Who this book is for The book targets DevOps engineers, system administrators, docker professionals or any stakeholders who would like to explore the power of working with Docker and Jenkins together. No prior knowledge of DevOps is required for this book.

Change the way your organization deploys software at scale with this fast-paced guide to the world of Docker About This Book Cut through the noise and in simple terms learn to package your applications and test, ship, and scale your containers Find and build images and successfully run your programs within containers Build, deploy, and test your Docker containers and put them to work in production Who This Book Is For This book is for IT professionals, system administrators, and DevOps professionals or anyone looking to quickly develop and deploy software to production at scale. If you are interested in Docker, DevOps, or containers in general, don't look any further. What You Will Learn Understand Docker's architecture Build, ship, and run distributed applications Deploy, automate, and manage the execution of applications within Docker Scale and virtualize images and containers Utilize the networking features that Docker offers Use repositories to store and retrieve images In Detail This fast-paced practical guide

Download File PDF Continuous Delivery With Docker Containers And Java Ee

will get you up and running with Docker. Using Docker, you will be able to build, ship, and run many distributed applications in real time. You will start with quickly installing Docker and start working with images and containers. We will present different types of containers and their applications, and show you how to find and build images. You will learn how you can contribute to the image repository by publishing different images. This will familiarize you with the image building process and you will be able to successfully run your programs within containers. By finishing this book, you will be well equipped in deploying your applications using Docker and will have a clear understanding of concepts, techniques, and practical methods to get it running in production systems. Style and approach This book takes a fast-paced practical approach that quickly gets you up and running with Docker so that you spend less time learning and more time deploying Docker containers effectively. This book contains a mix of concepts, practical examples, techniques, and the most up-to-date content to run things effectively in production. We'll show you the easiest way to speed up your development and deployment with Docker.

Obtain enterprise agility and continuous delivery by implementing DevOps with Windows Server 2016 About This Book This practical learning guide will improve your application lifecycle management and help you manage environments efficiently Showcase through a sample application ways to apply DevOps principles and practices in the real world Implement DevOps using latest technologies in Windows Server 2016 such as Windows Container, Docker, and Nano Servers Who This Book Is For This book is for

Download File PDF Continuous Delivery With Docker Containers And Java Ee

.NET developers and system administrators who have a basic knowledge of Windows Server 2016 and are now eager to implement DevOps at work using Windows Server 2016. Knowledge of Powershell, Azure, and containers will help.

What You Will Learn

- Take a deep dive into the fundamentals, principles, and practices of DevOps
- Achieve an end-to-end DevOps implementation
- Execute source control management using GITHUB and VSTS
- vNext Automate the provisioning and configuration of infrastructure
- Build and release pipeline
- Measure the success of DevOps through application instrumentation and monitoring

In Detail

Delivering applications swiftly is one of the major challenges faced in fast-paced business environments. Windows Server 2016 DevOps is the solution to these challenges as it helps organizations to respond faster in order to handle the competitive pressures by replacing error-prone manual tasks using automation. This book is a practical description and implementation of DevOps principles and practices using the features provided by Windows Server 2016 and VSTS vNext. It jumps straight into explaining the relevant tools and technologies needed to implement DevOps principles and practices. It implements all major DevOps practices and principles and takes readers through it from envisioning a project up to operations and further. It uses the latest and upcoming concepts and technologies from Microsoft and open source such as Docker, Windows Container, Nano Server, DSC, Pester, and VSTS vNext. By the end of this book, you will be well aware of the DevOps principles and practices and will have implemented all these principles practically for a sample application using the latest technologies on the Microsoft platform. You will be ready to start implementing DevOps within your project/engagement.

Style and approach

This practical, learning book is linear and progressive, and every chapters builds on the previous

Download File PDF Continuous Delivery With Docker Containers And Java Ee

chapters. We focus on the practical skills required to implement DevOps, with a summary of the key concepts only where strictly necessary.

Configure and extend Jenkins to architect, build, and automate efficient software delivery pipelines About This Book Configure and horizontally scale a Jenkins installation to support a development organization of any size Implement Continuous Integration, Continuous Delivery, and Continuous Deployment solutions in Jenkins A step-by-step guide to help you get the most out of the powerful automation orchestration platform that is Jenkins Who This Book Is For If you are a novice or intermediate-level Jenkins user who has used Jenkins before but are not familiar with architecting solutions and implementing it in your organization, then this is the book for you. A basic understanding of the core elements of Jenkins is required to make the best use of this book. What You Will Learn Create and manage various types of build jobs, and implement automation tasks to support a software project of any kind Get to grips with the automated testing architecture, and scalable automated testing techniques Facilitate the delivery of software across the SDLC by creating scalable automated deployment solutions Manage scalable automation pipelines in Jenkins using the latest build, test, and deployment strategies Implement a scalable master / slave build automation platform, which can support Windows, Mac OSX, and Linux software solutions Cover troubleshooting and advanced configuration techniques for Jenkins slave nodes Support a robust build and delivery system by implementing basic infrastructure as code solutions in configuration management tools such as Ansible In Detail With the software industry becoming more and more competitive, organizations are now integrating delivery automation and automated quality assurance practices into their business model. Jenkins represents a complete

Download File PDF Continuous Delivery With Docker Containers And Java Ee

automation orchestration system, and can help converge once segregated groups into a cohesive product development and delivery team. By mastering the Jenkins platform and learning to architect and implement Continuous Integration, Continuous Delivery, and Continuous Deployment solutions, your organization can learn to outmanoeuvre and outpace the competition. This book will equip you with the best practices to implement advanced continuous delivery and deployment systems in Jenkins. The book begins with giving you high-level architectural fundamentals surrounding Jenkins and Continuous Integration. You will cover the different installation scenarios for Jenkins, and see how to install it as a service, as well as the advanced XML configurations. Then, you will proceed to learn more about the architecture and implementation of the Jenkins Master/Slave node system, followed by creating and managing Jenkins build jobs effectively. Furthermore, you'll explore Jenkins as an automation orchestration system, followed by implementing advanced automated testing techniques. The final chapters describe in depth the common integrations to Jenkins from third-party tools such as Jira, Artifactory, Amazon EC2, and getting the most out of the Jenkins REST-based API. By the end of this book, you will have all the knowledge necessary to be the definitive resource for managing and implementing advanced Jenkins automation solutions for your organization.

Style and approach This book is a step-by-step guide to architecting and implementing automated build solutions, automated testing practices, and automated delivery methodologies. The topics covered are based on industry-proven techniques, and are explained in a simple and easy to understand manner.

A step-by-step guide to implement Continuous Integration and Continuous Delivery (CI/CD) for Flutter, Ionic, Android, and Angular applications. **KEY FEATURES** ? This book

Download File PDF Continuous Delivery With Docker Containers And Java Ee

covers all Declarative Pipelines that can be utilized in real-life scenarios with sample applications written in Android, Angular, Ionic Cordova, and Flutter. ? This book utilizes the YAML Pipeline feature of Jenkins. A step-by-step implementation of Continuous Practices of DevOps makes it easy to understand even for beginners. DESCRIPTION This book brings solid practical knowledge on how to create YAML pipelines using Jenkins for efficient and scalable CI/CD pipelines. It covers an introduction to various essential topics such as DevOps, DevOps History, Benefits of DevOps Culture, DevOps and Value Streams, DevOps Practices, different types of pipelines such as Build Pipeline, Scripted Pipeline, Declarative Pipeline, YAML Pipelines, and Blue Ocean. This book provides an easy journey to readers in creating YAML pipelines for various application systems, including Android, AngularJS, Flutter, and Ionic Cordova. You will become a skilled developer by learning how to run Static Code Analysis using SonarQube or Lint tools, Unit testing, calculating code coverage, publishing unit tests and coverage reports, verifying the threshold of code coverage, creating build/package, and distributing packages across different environments. By the end of this book, you will be able to try out some of the best practices to implement DevOps using Jenkins and YAML. WHAT YOU WILL LEARN ? Write successful YAML Pipeline codes for Continuous Integration and Continuous Delivery. ? Explore the working of CI/CD pipelines across Android, Angular, Ionic Cordova, and Flutter apps. ? Learn the importance of Continuous Code Inspection and Code Quality. ? Understand the importance of Continuous Integration and Continuous Delivery. ? Learn to publish Unit Tests and Code Coverage in Declarative Pipelines. ? Learn to deploy apps on Azure and distribute Mobile Apps to App Centers. WHO THIS BOOK IS FOR This book is suitable for beginners, DevOps consultants, DevOps

Download File PDF Continuous Delivery With Docker Containers And Java Ee

evangelists, DevOps engineers, technical specialists, technical architects, and Cloud experts. Some prior basic knowledge of application development and deployment, Cloud computing, and DevOps practices will be helpful.

TABLE OF CONTENTS

- 1.Introducing Pipelines
- 2.Basic Components of YAML Pipelines
- 3.Building CI/CD Pipelines with YAML for Flutter Applications
- 4.Building CI/CD Pipelines with YAML for Ionic Cordova Applications
- 5.Building CI/CD Pipelines with YAML for Android Apps
- 6.Building CI/CD Pipelines with YAML for Angular Applications
- 7.Pipeline Best Practices

Unleash the combination of Docker and Jenkins in order to enhance the DevOps workflow About This Book Build reliable and secure applications using Docker containers. Create a complete Continuous Delivery pipeline using Docker, Jenkins, and Ansible. Deliver your applications directly on the Docker Swarm cluster. Create more complex solutions using multi-containers and database migrations. Who This Book Is For This book is indented to provide a full overview of deep learning. From the beginner in deep learning and artificial intelligence to the data scientist who wants to become familiar with Theano and its supporting libraries, or have an extended understanding of deep neural nets. Some basic skills in Python programming and computer science will help, as well as skills in elementary algebra and calculus. What You Will Learn Get to grips with docker fundamentals and how to dockerize an application for the Continuous Delivery process Configure Jenkins and scale it using Docker-based agents Understand the principles and the technical aspects of a successful Continuous Delivery pipeline Create a complete Continuous Delivery process using modern tools: Docker, Jenkins, and Ansible Write acceptance tests using Cucumber and run them in the Docker ecosystem using Jenkins Create multi-container applications using Docker Compose

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Managing database changes inside the Continuous Delivery process and understand effective frameworks such as Cucumber and Flyweight Build clustering applications with Jenkins using Docker Swarm Publish a built Docker image to a Docker Registry and deploy cycles of Jenkins pipelines using community best practices In Detail The combination of Docker and Jenkins improves your Continuous Delivery pipeline using fewer resources. It also helps you scale up your builds, automate tasks and speed up Jenkins performance with the benefits of Docker containerization. This book will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of app development. It will start with setting up a Docker server and configuring Jenkins on it. It will then provide steps to build applications on Docker files and integrate them with Jenkins using continuous delivery processes such as continuous integration, automated acceptance testing, and configuration management. Moving on you will learn how to ensure quick application deployment with Docker containers along with scaling Jenkins using Docker Swarm. Next, you will get to know how to deploy applications using Docker images and testing them with Jenkins. By the end of the book, you will be enhancing the DevOps workflow by integrating the functionalities of Docker and Jenkins. Style and approach The book is aimed at DevOps Engineers, developers and IT Operations who want to enhance the DevOps culture using Docker and Jenkins. Automated testing and deploying of containers About This Video This comprehensive video tutorial will take you through the various methods of logging and monitoring containers. Learn how to receive metrics from log files Set up continuous delivery systems to automate testing and deploying Docker containers In Detail Continuous Delivery is a process whereby code changes are automatically built, tested, and

Download File PDF Continuous Delivery With Docker Containers And Java Ee

prepared for release to production. This video course starts by showing you how to ship logs to a central location for easier viewing and configure monitoring services to check the health of your containers and services with AWS, Azure, and Google. You will begin by designing toolsets and components which will make up the Continuous Deployment pipeline of the future. You will learn about logging services such as AWS, Google, and Azure. You will also learn why centralized logging is important and how container logging differs from logging from physical servers. You will then master monitoring containers and see some examples involving monitoring dashboards that will be installed in this course. Toward the end of the course, you will explore how monitoring and logging overlap, and how metrics can be retrieved from log files. All the code and supporting files for this course are available on GitHub at <https://github.com/PacktPublishing/Creating-Continuous-Deployment-Pipeline-for-Cloud-Platforms>. Downloading the example code for this course: You can download the example code files for all Packt video courses you have purchased from your account at <http://www.PacktPub.com>. If you purchased this course elsewhere, you can visit <http://www.PacktPub.com/support> and register to have the files e-mailed directly to you. Learn to use some of the most exciting and powerful tools to deliver world-class quality software with continuous delivery and DevOps. About This Book Get to know the background of DevOps so you understand the collaboration between different aspects of an IT organization and a software developer. Deploy top-quality software and ensure software maintenance and release management with this practical guide. This course covers some of the most exciting technology available to DevOps engineers, and demonstrates multiple techniques for using them. Real-world and realistic examples are provided to help you as you go about the

Download File PDF Continuous Delivery With Docker Containers And Java Ee

implementation and adoption of continuous delivery and DevOps Who This Book Is For This course is for developers who want to understand how the infrastructure that builds today's enterprises works, and how to painlessly and regularly ship quality software. What You Will Learn Set up and familiarize yourself with all the tools you need to be efficient with DevOps Design an application that is suitable for continuous deployment systems with DevOps in mind Test the code using automated regression testing with Jenkins Selenium Managing the lifecycle of hosts, from creation to ongoing management using Puppet Razor Find out how to manage, use, and work with Code in the Git version management system See what traps, pitfalls, and hurdles to look out for as you implement continuous delivery and DevOps In Detail Harness the power of DevOps to boost your skill set and make your IT organization perform better. If you're keen to employ DevOps techniques to better your software development, this course contains all you need to overcome the day-to-day complications of managing complex infrastructures the DevOps way. Start with your first module – Practical DevOps - that encompasses the entire flow from code from testing to production. Get a solid ground-level knowledge of how to monitor code for any anomalies, perform code testing, and make sure the code is running smoothly through a series of real-world exercise, and develop practical skills by creating a sample enterprise Java application. In the second module, run through a series of tailored mini-tutorials designed to give you a complete understanding of every DevOps automation technique. Create real change in the way you deliver your projects by utilizing some of the most commendable software available today. Go from your first steps of managing code in Git to configuration management in Puppet, monitoring using Sensu, and more. In the final module, get to grips with the continuous delivery techniques

Download File PDF Continuous Delivery With Docker Containers And Java Ee

that will help you reduce the time and effort that goes into the delivery and support of software. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Practical DevOps by Joakim Verona DevOps Automation Cookbook by Michael Duffy Continuous Delivery and DevOps : A Quickstart Guide - Second Edition by Paul Swartout Style and approach This course is an easy to follow project based guide for all those with a keen interest in deploying world-class software using some of the most effective and remarkable technologies available.

A step-by-step guide to implementing Continuous Integration and Continuous Delivery (CICD) for Mobile, Hybrid, and Web applications DESCRIPTION The main objective of the book is to create Declarative Pipeline for programming languages such as Java, Android, iOS, AngularJS, NodeJS, Flutter, Ionic Cordova, and .Net. The book starts by introducing all the areas which encompass the field of DevOps Practices. It covers definition of DevOps, DevOps history, benefits of DevOps culture, DevOps and Value Streams, DevOps practices, different Pipeline types such as Build Pipeline, Scripted Pipeline, Declarative Pipeline, and Blue Ocean. Each chapter focuses on Pipeline that includes Static Code Analysis using SonarQube or Lint tools, Unit tests, calculating code coverage, publishing unit tests and coverage reports, verifying the threshold of code coverage, creating build/package, and distributing package to a specific environment based on the type of programming language. The book will also teach you how to use different deployment distribution environments such as Azure App Services, Docker, Azure Container Services, Azure Kubernetes Service, and App Center. By the end, you will be able to implement DevOps Practices using Jenkins effectively and efficiently. KEY FEATURES ? Understand how and when

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Continuous Integration makes a difference ? Learn how to create Declarative Pipeline for Continuous Integration and Continuous Delivery ? Understand the importance of Continuous Code Inspection and Code Quality ? Learn to publish Unit Test and Code Coverage in Declarative Pipeline ? Understand the importance of Quality Gates and Build Quality WHAT YOU WILL LEARN ? Use Multi-Stage Pipeline (Pipeline as a Code) to implement Continuous Integration and Continuous Delivery. ? Create and configure Cloud resources using Platform as a Service Model ? Deploy apps to Azure App Services, Azure Kubernetes and containers ?

Understand how to distribute Mobile Apps (APK and IPA) to App Center ? Improve Code Quality and Standards using Continuous Code Inspection WHO THIS BOOK IS FOR This book is for DevOps Consultants, DevOps Evangelists, DevOps Engineers, Technical Specialists, Technical Architects, Cloud Experts, and Beginners. Having a basics knowledge of Application development and deployment, Cloud Computing, and DevOps Practices would be an added advantage. TABLE OF CONTENTS 1. Introducing DevOps 2. Introducing Jenkins 2.0 and Blue Ocean 3. Building CICD Pipeline for Java Web Application 4. Building CICD Pipeline for Android App 5. Building CICD Pipeline for iOS App 6. Building CICD Pipeline for Angular Application 7. Building CICD Pipeline NodeJS Application 8. Building CICD Pipeline for Hybrid Mobile Application 9. Building CICD Pipeline for Python Application 10. Building CICD Pipeline for DotNet Application 11. Best Practices

This course teaches concepts by deep-dive on-hand exercises. Throughout the course, you will learn the required toolset by using both on-premise, open-source, and hosted cloud solutions. You'll find checklists, best practices, and critical points mentioned throughout the lessons, making things more interesting. Key Features Explains in detail cloud-

Download File PDF Continuous Delivery With Docker Containers And Java Ee

native continuous integration and delivery Demonstrates how to run a build in a CI/CD system Shows continuous delivery to Docker Registry and continuous deployment to Kubernetes Book Description Cloud-native software development is based on developing distributed applications focusing on speed, stability, and high availability. With this paradigm shift, software development has changed substantially and converted into a more agile environment where distributed teams develop distributed applications. In addition, the environment where the software is built, tested and deployed has changed from bare-metal servers to cloud systems. In this course, the new concepts of cloud-native Continuous Integration and Delivery are discussed in depth. Cloud-native tooling and services such as cloud providers (AWS, Google Cloud) containerization with Docker, container-orchestrators such as Kubernetes will be a part of this course to teach how to analyze and design modern software delivery pipelines. What you will learn Learn the basics of DevOps patterns for cloud-native architecture Learn the cloud-native way of designing CI/CD systems Create multi-stage builds and tests for Docker. Apply the best practices for Docker container images Experiment using GitLab CI/CD pipelines for continuous integration Build and test their applications on cloud Learn how to continuously deliver to Docker registry Learn how to continuously deploy to Kubernetes Experiment using GitLab CI/CD pipelines for Continuous Delivery Configure and deploy software to Kubernetes using Helm Who this book is for This book is ideal for professionals interested in cloud-native software development. To benefit the most from this book, you must be familiar with developing, building, testing, integrating, and deploying containerized microservices into cloud systems. Docker lets you create, deploy, and manage your applications anywhere at anytime – flexibility is key so you can deploy

Download File PDF Continuous Delivery With Docker Containers And Java Ee

stable, secure, and scalable app containers across a wide variety of platforms and delve into microservices architecture

About This Book This up-to-date edition shows how to leverage Docker's features to deploy your existing applications Learn how to package your applications with Docker and build, ship, and scale your containers Explore real-world examples of securing and managing Docker containers Who This Book Is For This book is ideal for developers, operations managers, and IT professionals who would like to learn about Docker and use it to build and deploy container-based apps. No prior knowledge of Docker is expected. What You Will Learn Develop containerized applications using the Docker version 17.03 Build Docker images from containers and launch them Develop Docker images and containers leveraging Dockerfiles Use Docker volumes to share data Get to know how data is shared between containers Understand Docker Jenkins integration Gain the power of container orchestration Familiarize yourself with the frequently used commands such as `docker exec`, `docker ps`, `docker top`, and `docker stats` In Detail Docker is an open source containerization engine that offers a simple and faster way for developing and running software. Docker containers wrap software in a complete filesystem that contains everything it needs to run, enabling any application to be run anywhere – this flexibly and portably means that you can run apps in the cloud, on virtual machines, or on dedicated servers. This book will give you a tour of the new features of Docker and help you get started with Docker by building and deploying a simple application. It will walk you through the commands required to manage Docker images and containers. You'll be shown how to download new images, run containers, list the containers running on the Docker host, and kill them. You'll learn how to leverage Docker's volumes feature to share data between the Docker

Download File PDF Continuous Delivery With Docker Containers And Java Ee

host and its containers – this data management feature is also useful for persistent data. This book also covers how to orchestrate containers using Docker compose, debug containers, and secure containers using the AppArmor and SELinux security modules. Style and approach This step-by-step guide will walk you through the features and use of Docker, from Docker software installation to the impenetrable security of containers.

Start thinking about your development pipeline as a mission-critical application. Discover techniques for implementing code-driven infrastructure and CI/CD workflows using Jenkins, Docker, Terraform, and cloud-native services. In Pipeline as Code, you will master:

- Building and deploying a Jenkins cluster from scratch
- Writing pipeline as code for cloud-native applications
- Automating the deployment of Dockerized and Serverless applications
- Containerizing applications with Docker and Kubernetes
- Deploying Jenkins on AWS, GCP and Azure
- Managing, securing and monitoring a Jenkins cluster in production
- Key principles for a successful DevOps culture

Pipeline as Code is a practical guide to automating your development pipeline in a cloud-native, service-driven world. You'll use the latest infrastructure-as-code tools like Packer and Terraform to develop reliable CI/CD pipelines for numerous cloud-native applications. Follow this book's insightful best practices, and you'll soon be delivering software that's quicker to market, faster to deploy, and with less last-minute production bugs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Treat your CI/CD pipeline like the real application it is. With the Pipeline as Code approach, you create a collection of scripts that replace the tedious web UI wrapped around most CI/CD systems. Code-driven pipelines are easy to use, modify, and maintain, and your entire CI pipeline becomes more efficient because

Download File PDF Continuous Delivery With Docker Containers And Java Ee

you directly interact with core components like Jenkins, Terraform, and Docker. About the book In Pipeline as Code you'll learn to build reliable CI/CD pipelines for cloud-native applications. With Jenkins as the backbone, you'll programmatically control all the pieces of your pipeline via modern APIs. Hands-on examples include building CI/CD workflows for distributed Kubernetes applications, and serverless functions. By the time you're finished, you'll be able to swap manual UI-based adjustments with a fully automated approach! What's inside Build and deploy a Jenkins cluster on scale Write pipeline as code for cloud-native applications Automate the deployment of Dockerized and serverless applications Deploy Jenkins on AWS, GCP, and Azure Grasp key principles of a successful DevOps culture About the reader For developers familiar with Jenkins and Docker. Examples in Go. About the author Mohamed Labouardy is the CTO and co-founder of Crew.work, a Jenkins contributor, and a DevSecOps evangelist. Table of Contents PART 1 GETTING STARTED WITH JENKINS 1 What's CI/CD? 2 Pipeline as code with Jenkins PART 2 OPERATING A SELF-HEALING JENKINS CLUSTER 3 Defining Jenkins architecture 4 Baking machine images with Packer 5 Discovering Jenkins as code with Terraform 6 Deploying HA Jenkins on multiple cloud providers PART 3 HANDS-ON CI/CD PIPELINES 7 Defining a pipeline as code for microservices 8 Running automated tests with Jenkins 9 Building Docker images within a CI pipeline 10 Cloud-native applications on Docker Swarm 11 Dockerized microservices on K8s 12 Lambda-based serverless functions PART 4 MANAGING, SCALING, AND MONITORING JENKINS 13 Collecting continuous delivery metrics 14 Jenkins administration and best practices Achieve the Continuous Integration and Continuous Delivery of your web applications with ease About This Book

Download File PDF Continuous Delivery With Docker Containers And Java Ee

Overcome the challenges of implementing DevOps for web applications, familiarize yourself with diverse third-party modules, and learn how to integrate them with bespoke code to efficiently complete tasks Understand how to deploy web applications for a variety of Cloud platforms such as Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps, and Docker Container Understand how to monitor applications deployed in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps using Nagios, New Relic, Microsoft Azure, and AWS default monitoring features Who This Book Is For If you are a system admin or application and web application developer with a basic knowledge of programming and want to get hands-on with tools such as Jenkins 2 and Chef, and Cloud platforms such as AWS and Microsoft Azure, Docker, New Relic, Nagios, and their modules to host, deploy, monitor, and manage their web applications, then this book is for you. What You Will Learn Grasp Continuous Integration for a JEE application—create and configure a build job for a Java application with Maven and with Jenkins 2.0 Create built-in delivery pipelines of Jenkins 2 and build a pipeline configuration for end-to-end automation to manage the lifecycle of Continuous Integration Get to know all about configuration management using Chef to create a runtime environment Perform instance provisioning in AWS and Microsoft Azure and manage virtual machines on different cloud platforms—install Knife plugins for Amazon EC2 and Microsoft Azure Deploy an application in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure Web Apps, and a Docker container Monitor infrastructure, application servers, web servers, and applications with the use of open source monitoring solutions and New Relic Orchestrate multiple build jobs to achieve application deployment automation—create parameterized build jobs for end-to-end automation In Detail

Download File PDF Continuous Delivery With Docker Containers And Java Ee

The DevOps culture is growing at a massive rate, as many organizations are adopting it. However, implementing it for web applications is one of the biggest challenges experienced by many developers and admins, which this book will help you overcome using various tools, such as Chef, Docker, and Jenkins. On the basis of the functionality of these tools, the book is divided into three parts. The first part shows you how to use Jenkins 2.0 for Continuous Integration of a sample JEE application. The second part explains the Chef configuration management tool, and provides an overview of Docker containers, resource provisioning in cloud environments using Chef, and Configuration Management in a cloud environment. The third part explores Continuous Delivery and Continuous Deployment in AWS, Microsoft Azure, and Docker, all using Jenkins 2.0. This book combines the skills of both web application deployment and system configuration as each chapter contains one or more practical hands-on projects. You will be exposed to real-world project scenarios that are progressively presented from easy to complex solutions. We will teach you concepts such as hosting web applications, configuring a runtime environment, monitoring and hosting on various cloud platforms, and managing them. This book will show you how to essentially host and manage web applications along with Continuous Integration, Cloud Computing, Configuration Management, Continuous Monitoring, Continuous Delivery, and Deployment. Style and approach This is a learning guide for those who have a basic knowledge of application deployment, configuration management tools, and Cloud computing, and are eager to leverage it to implement DevOps for web applications using end-to-end automation and orchestration.

Get hands-on recipes to automate and manage Linux containers with the Docker 1.6 environment and jump-start

Download File PDF Continuous Delivery With Docker Containers And Java Ee

your Puppet development About This Book Successfully deploy DevOps with proven solutions and recipes Automate your infrastructure with Puppet and combine powerful DevOps methods Deploy and manage highly scalable applications using Kubernetes streamline the way you manage your applications Who This Book Is For This Learning Path is for developers, system administrators, and DevOps engineers who want to use Puppet, Docker, and Kubernetes in their development, QA, or production environments. This Learning Path assumes experience with Linux administration and requires some experience with command-line usage and basic text file editing. What You Will Learn Discover how to build high availability Kubernetes clusters Deal with inherent issues with container virtualization and container concepts Create services with Docker to enable the swift development and deployment of applications Make optimum use of Docker in a testing environment Create efficient manifests to streamline your deployments Automate Puppet master deployment using Git hooks, r10k, and PuppetDB In Detail With so many IT management and DevOps tools on the market, both open source and commercial, it's difficult to know where to start. DevOps is incredibly powerful when implemented correctly, and here's how to get it done. This Learning Path covers three broad areas: Puppet, Docker, and Kubernetes. This Learning Path is a large resource of recipes to ease your daily DevOps tasks. We begin with recipes that help you develop a complete and expert understanding of Puppet's latest and most advanced features. Then we provide recipes that help you efficiently work with the Docker environment. Finally, we show you how to better manage containers in different scenarios in production using Kubernetes. This course is based on these books: Puppet Cookbook, Third Edition Docker Cookbook Kubernetes Cookbook Style and approach

Download File PDF Continuous Delivery With Docker Containers And Java Ee

This easy-to-follow tutorial-style guide teaches you precisely how to configure complex systems in Puppet and manage your containers using Kubernetes.

[Copyright: 541ba19f7315a2c127bdf097f21bef78](#)