Learning Continuous Integration With Jenkins

"This course teaches developers how to use Jenkins to automate the deployment of web applications to an application server. Automated deployments are a key feature of any deployment pipeline used for continuous delivery and deployment. The course introduces a sample Java web application and focuses on deploying that application to an Apache Tomcat servlet container using Jenkins integration. By the end of this course, you'll understand how to automate the delivery of web applications by packaging them from a source code repository and ultimately deploying to an application server."--Resource description page.

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 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

"The Jenkins server or CI (continuous integration) server is a tool that allows software developers to automate many of the common tasks (testing, compiling, etc.) associated with software development. It's become a widely used software development technology (133 thousand active installs, 1 million+ users), because of its ability to dramatically speed up development while assuring code quality. This course teaches you the basics of using the Jenkins server, while explaining the core concepts that govern software automation: Continuous integration, continuous deployment, and

continuous delivery."--Resource description page.
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 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 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

Streamline software development with Jenkins, the popular Java-based open source tool that has revolutionized the way teams think about Continuous Integration (CI). This complete guide shows you how to automate your build, integration, release, and deployment processes with Jenkins—and demonstrates how CI can save you time, money, and many headaches. Ideal for developers, software architects, and project managers, Jenkins: The Definitive Guide is both a CI tutorial and a comprehensive Jenkins reference. Through its wealth of best practices and real-world tips, you'll discover how easy it is to set up a CI service with Jenkins. Learn how to install, configure, and secure your Jenkins server Organize and monitor general-purpose build jobs Integrate automated tests to verify builds, and set up code quality reporting Establish effective team notification strategies and techniques Configure build pipelines, parameterized jobs, matrix builds, and other advanced jobs Manage a farm of Jenkins servers to run distributed builds Implement automated deployment and continuous delivery
Simplify your DevOps roles with DevOps tools and techniques Key Features Learn to utilize business resources effectively to increase productivity and collaboration Leverage the ultimate open source DevOps tools to achieve continuous integration and continuous delivery (CI/CD) Ensure faster time-to-

market by reducing overall lead time and deployment downtime Book Description The implementation of DevOps processes requires the efficient use of various tools, and the choice of these tools is crucial for the sustainability of projects and collaboration between development (Dev) and operations (Ops). This book presents the different patterns and tools that you can use to provision and configure an infrastructure in the cloud. You'll begin by understanding DevOps culture, the application of DevOps in cloud infrastructure, provisioning with Terraform, configuration with Ansible, and image building with Packer. You'll then be taken through source code versioning with Git and the construction of a DevOps CI/CD pipeline using Jenkins, GitLab CI, and Azure Pipelines. This DevOps handbook will also guide you in containerizing and deploying your applications with Docker and Kubernetes. You'll learn how to reduce deployment downtime with blue-green deployment and the feature flags technique, and study DevOps practices for open source projects. Finally, you'll grasp some best practices for reducing the overall application lead time to ensure faster time to market. By the end of this book, you'll have built a solid foundation in DevOps, and developed the skills necessary to enhance a traditional software delivery process using modern software delivery tools and techniques What you will learn Become well versed with DevOps culture and

its practices Use Terraform and Packer for cloud infrastructure provisioning Implement Ansible for infrastructure configuration Use basic Git commands and understand the Git flow process Build a DevOps pipeline with Jenkins, Azure Pipelines, and GitLab CI Containerize your applications with Docker and Kubernetes Check application quality with SonarQube and Postman Protect DevOps processes and applications using DevSecOps tools Who this book is for If you are a developer or a system administrator interested in understanding continuous integration, continuous delivery, and containerization with DevOps tools and techniques, this book is for you.

Schedule and run application containers using Kubernetes Key Features Get to grips with a wide range of tools to monitor and secure your deployments Manage your container clusters and networks using Kubernetes Get well-versed with the fundamentals of Kubernetes Book Description Kubernetes has continued to grow and achieve broad adoption across various industries, helping you to orchestrate and automate container deployments on a massive scale. Based on the recent release of Kubernetes 1.12, Getting Started with Kubernetes gives you a complete understanding of how to install a Kubernetes cluster. The book focuses on core Kubernetes constructs, such as pods, services, replica sets, replication controllers,

and labels. You will understand cluster-level networking in Kubernetes, and learn to set up external access to applications running in the cluster. As you make your way through the book, you'll understand how to manage deployments and perform updates with minimal downtime. In addition to this, you will explore operational aspects of Kubernetes , such as monitoring and logging, later moving on to advanced concepts such as container security and cluster federation. You'll get to grips with integrating your build pipeline and deployments within a Kubernetes cluster, and be able to understand and interact with open source projects. In the concluding chapters, you'll orchestrate updates behind the scenes, avoid downtime on your cluster, and deal with underlying cloud provider instability within your cluster. By the end of this book, you'll have a complete understanding of the Kubernetes platform and will start deploying applications on it. What you will learn Download, install, and configure the Kubernetes code base Set up and access monitoring and logging for Kubernetes clusters Set up external access to applications running in the cluster Learn how to manage and scale kubernetes with hosted platforms on AWS, Azure, and GCP Run multiple clusters and manage them from a single control plane Discover top tools for deploying and managing a Kubernetes cluster Learn how to get production ready and

harden Kubernetes operations, networking, and storage Who this book is for Getting Started with Kubernetes is for developers, system administrators, and DevOps engineers who want to automate the deployment process and scale their applications. No prior knowledge of Kubernetes is required. 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 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
Unleash the combination of Docker and Jenkins in order to enhance the DevOps workflowAbout 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 ForThis 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* 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 practicesIn DetailThe 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 approachThe book is aimed at DevOps Engineers, developers and IT Operations who want to enhance the DevOps culture using Docker and Jenkins.

Understand continuous integration (CI), continuous delivery, and continuous deployment (CD) with Jenkins. These processes allow users as well as administrators to catch problems as soon as they get injected into software systems. This book starts with an introduction to Jenkins and covers its architecture and role in CI/CD. The basics are covered, including installing and configuring Jenkins. Tool configuration and plugins are discussed as well as available security measures such as credentials. You will learn what is meant by Job in Jenkins, its types, sections, and much more. You will look at Java API: projects, jobs, configuration. The concluding chapters take you through creating pipelines, their role in

managing web apps, and distributed pipelines. The book also covers unit testing using TestNG as well as end-to-end testing using Selenium Python as a part of building a life cycle and setting up Jenkins on different physical and Docker environments as well as Jenkins integration with cloud environments such as AWS. And you will learn how to create reusable libraries for use in Jenkins Pipeline and control Jenkins servers using Jenkins CLI and REST APIs. The new Jenkins Blue Ocean also is covered. The book helps you understand CI/CD implementation using Jenkins from scratch in your projects and prepare for end-to-end DevOps practices. What You Will Learn Apply Jenkins to create end-to-end pipelines Integrate Jenkins with AWS, Docker, Git, and many more tools Use Selenium automation for end-to-end testing Create distributed pipelines Who Is This Book For Developers and test automation professionals who are involved in creating CI/CD pipelines as well as prospective DevOps aspirants who want to make their way ahead as professionals Learning Android™ Application Programming will help you master modern Android programming by building a fully functional app from the ground up. Working with the Android 4.3 toolset, you'll solve real-world problems faced by every Android developer and learn best practices for success with any mobile development project. Ideal for developers who have little or no Android experience but have

basic Java experience, this tutorial teaches through carefully structured exercises that address the entire development process. Leading Android developers James Talbot and Justin McLean guide you through building a real biking mobile app that can handle everything from mileage tracking to route planning. Each chapter builds your knowledge, step-by-step, and in the end you will have a complete, working app. Along the way, you'll gain hands-on experience with writing code that can run on the widest spectrum of devices while still leveraging Android's newest features. You'll also discover proven solutions for the occasionally messy realities of Android development, from inaccurate sensor data to inadequate device battery life–pitfalls that most other Android books ignore. Learn how to Set up your Android development environment on Windows or Mac operating systems Quickly create a simple, working app that demonstrates basic Android principles Master core building blocks, such as Activities, Intents, Services, and Resources Build a functional user interface, and then make it more intuitive and usable Professionally style your Android app Make your app location-aware Integrate social networking features Build highly efficient threaded apps Integrate database support to read and write data Make your app run faster, while using less memory and power Efficiently test and debug your app Easily internationalize your app for multiple

countries and languages Sell your app through Google Play and the Amazon AppStore Get all of this book's sample code at www.androiddevbook.com/code.html. Register your book at informit.com/register to gain access to the Bonus KitKat Chapter. Download the free version of this book's On Your Bike app from Google Play today.

If you are a developer, tester, or a person in operations or Devops who wants to start practising CI, start using TeamCity or both, then this book is for you. Moreover, if you have thought about bringing CI into your team, if you are already using a CI tool and want to move to TeamCity, or if you are looking for ideal practises and techniques while implementing CI with TeamCity, this book will be useful.

"Plugins enhance the capabilities of the Jenkins automation server, making it possible for developers to refine their approach to building, deploying, and automating their Jenkins projects. The Jenkins plugins index is a library of over 1,000 plugins; this course shows you how to choose the best ones for your needs. You'll learn how to use the Jenkins plugin manager to install, update, and remove plugins. Then, as a bonus, you'll become familiar with five of the most popular Jenkins plugins in use today."--Resource description page.

Learning Continuous Integration with Jenkins

"In agile development practices, developers need to

integrate their work frequently to fix bugs or to create a new feature or functionality. Jenkins is used specifically for continuous integration, helping to enforce the principles of agile development. This video course will focus on the latest stable release of Jenkins 2, with features such as Pipeline as Code, new setup experiences, and an improved UI. You will be able to build simple or advanced pipelines easily and rapidly, hence improving your team's productivity. This video course delves into the installation of the required software dependencies and libraries and demonstrates the workflow you'll need to follow to perform continuous integration for a sample application. From there, you will learn how to integrate code repositories and build tools in order to build code pipelines to implement both continuous integration and continuous delivery. Finally, you will also learn to automate deployment to a cloud platform such as AWS."--Resource description page. 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 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 "Understanding how to properly configure a Jenkins automation server is essential to creating a Jenkins based Continuous Integration pipeline. This screencast demonstrates the basic set of procedures you must know to configure a Jenkins automation server and integrate it with third party tools. As the course moves along, you'll come to understand that Jenkins offers an almost unlimited supply of

configuration possibilities. This course does more than teach a basic setup; it teaches you the Jenkins configuration paradigm, giving you the confidence you will need to handle virtually any configuration option you may face going forward."--Resource description page.

Getting started with the processes and the tools to continuously deliver high-quality software About This Book Incorporate popular development practices to prevent messy code Automate your build, integration, release, and deployment processes with Jenkins, Git, and Gulp?and learn how continuous integration (CI) can save you time and money Gain an end-to-end overview of Continuous Integration using different languages (JavaScript and C#) and tools (Gulp and Jenkins) Who This Book Is For This book is for developers who want to understand and implement Continuous Integration and Delivery in their daily work. A basic knowledge of at least JavaScript and HTML/CSS is required. Knowing C# and SQL will come in handy. Most programmers who have programmed in a (compiled) C-like language will be able to follow along. What You Will Learn Get to know all the aspects of Continuous Integration, Deployment, and Delivery Find out how Git can be used in a CI environment Set up browser tests using Karma and Selenium and unit tests using Jasmine Use Node.js, npm, and Gulp to automate tasks such as linting, testing, and minification Explore different

Jenkins jobs to integrate with Node.js and C#
projects Perform Continuous Delivery and
Deployment using Jenkins Test and deliver a web
API In Detail The challenge faced by many teams
while implementing Continuous Deployment is that it
requires the use of many tools and processes that all
work together. Learning and implementing all these
tools (correctly) takes a lot of time and effort, leading
people to wonder whether it's really worth it. This
book sets up a project to show you the different
steps, processes, and tools in Continuous
Deployment and the actual problems they solve. We
start by introducing Continuous Integration (CI),
deployment, and delivery as well as providing an
overview of the tools used in CI. You'll then create a
web app and see how Git can be used in a CI
environment. Moving on, you'll explore unit testing
using Jasmine and browser testing using Karma and
Selenium for your app. You'll also find out how to
automate tasks using Gulp and Jenkins. Next, you'll
get acquainted with database integration for different
platforms, such as MongoDB and PostgreSQL.
Finally, you'll set up different Jenkins jobs to
integrate with Node.js and C# projects, and Jenkins
pipelines to make branching easier. By the end of
the book, you'll have implemented Continuous
Delivery and deployment from scratch. Style and
approach This practical book takes a step-by-step
approach to explaining all the concepts of

Continuous Integration and delivery, and how it can help you deliver a high-quality product.
Automate release processes, deployment, and continuous integration of your application as well as infrastructure automation with the powerful services offered by AWS About This Book Accelerate your infrastructure's productivity by implementing a continuous delivery pipeline within your environment Leverage AWS services and Jenkins 2.0 to perform complete application deployments on Linux servers This recipe-based guide that will help you minimize application deployment downtime Who This Book Is For This book is for developers and system administrators who are responsible for hosting their application and managing instances in AWS. It's also ideal for DevOps engineers looking to provide continuous integration, deployment, and delivery. A basic understanding of AWS, Jenkins, and some scripting knowledge is needed. What You Will Learn Build a sample Maven and NodeJS Application using CodeBuild Deploy the application in EC2/Auto Scaling and see how CodePipeline helps you integrate AWS services Build a highly scalable and fault tolerant CI/CD pipeline Achieve the CI/CD of a microservice architecture application in AWS ECS using CodePipeline, CodeBuild, ECR, and CloudFormation Automate the provisioning of your infrastructure using CloudFormation and Ansible Automate daily tasks and audit compliance using

AWS Lambda Deploy microservices applications on Kubernetes using Jenkins Pipeline 2.0 In Detail AWS CodeDeploy, AWS CodeBuild, and CodePipeline are scalable services offered by AWS that automate an application's build and deployment pipeline. In order to deliver tremendous speed and agility, every organization is moving toward automating an entire application pipeline. This book will cover all the AWS services required to automate your deployment to your instances. You'll begin by setting up and using one of the AWS services for automation – CodeCommit. Next, you'll learn how to build a sample Maven and NodeJS Application using CodeBuild. After you've built the application, you'll see how to use CodeDeploy to deploy the application in EC2/Autoscaling. You'll also build a highly scalable and fault tolerant continuous integration (CI)/continuous deployment (CD) pipeline using some easy-to-follow recipes. Following this, you'll achieve CI/CD for Microservices application and reduce the risk within your software development lifecycle. You'll also learn to set up an infrastructure using CloudFormation Template and Ansible, and see how to automate AWS resources using AWS Lambda. Finally, you'll learn to automate instances in AWS and automate the deployment lifecycle of applications.By the end of this book, you'll be able to minimize application downtime and implement CI/CD, gaining total control over your

software development lifecycle. Style and approach This book takes a "How to do it" approach, providing with easy solutions to automate common maintenance and deployment tasks.

Achieve the Continuous Integration and Continuous Delivery of your web applications with ease About This Book 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 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.
Develop a base for DevOps culture by implementing Continuous Integration and Continuous Delivery including automated builds, unit test execution, packaging, and static code analysis with Jenkins

2About This Book* Explore Continuous Integration and automation, along with how to manage and configure Jenkins* Master using Jenkins to build, test, and package Java applications* Learn about Jenkins' extensible features with automated deployment on cloud platforms such as AWS Elastic Beanstalk and Microsoft Azure App Services* Learn about creating a pipeline using Build Pipeline plugin and the Pipeline as Code feature available after the release of Jenkins 2.0Who This Book Is ForIf you are a Jenkins novice or beginner with a basic or no understanding of Continuous Integration, then this is the book for you. Beginners in Jenkins will get quick hands-on experience and gain the confidence to explore the use of Jenkins further.What You Will Learn* Get to grips with the challenges faced by developer communities* Learn about Continuous Integration and how it helps build various Java applications* Facilitate the installation and configuration of Jenkins* Install and configure code repositories and build tools* Learn about the integration of Eclipse with Jenkins* Manage the integration of Jenkins, code repositories, and build tools* Familiarize yourself with Continuous Integration for Java applications with unit test execution and static code analysis* Learn about Continuous Delivery and how to deploy applications in AWS and Microsoft AzureIn DetailIn agile development practices, developers need to integrate

their work frequently to fix bugs or to create a new feature or functionality. Jenkins is used specifically for Continuous Integration, helping to enforce the principles of agile development. This book focuses on the latest and stable release of Jenkins (2.5 and later), featuring the latest features, such as Pipeline as Code, the new setup experience, and the improved UI. With the all-new Pipeline as Code feature, you will be able to build simple or advanced pipelines easily and rapidly, hence improving your teams' productivity.This book begins by tackling the installation of the necessary software dependencies and libraries you'll need to perform Continuous Integration for a Java application. From there, you'll integrate code repositories, applications, and build tools for the implementation of Continuous Integration.Finally, you will also learn how to automate your deployment on cloud platforms such as AWS and Microsoft Azure, along with a few advanced testing techniques.Style and approachThis book provides simple, step-by-step instructions, taking you from start to finish in accomplishing real-world Continuous Integration and Continuous Delivery tasks.

5+ Hours of Video Instruction As all companies become software companies, the reliability of software becomes an integral part of a business' success. Continuous testing is critical for delivering robust software and increasing reliability and

confidence when software is released. Without constant validation, failure is imminent. Continuous integration allows developers to automate the debugging of new code as it is integrated and identify problems early in the release process. Jenkins is a widely used CI/CD platform, but the lack of a thorough understanding of best practices and scalability is pervasive. It is easy to install Jenkins, but it is difficult to get it right. This course walks you through industry standard best practices to deploy and maintain continuous testing with Jenkins. In this course, you learn how to deploy and configure a Jenkins instance with a real-world use case scenario. Description Cloud technology advancement has changed the face of the tech world, with more emphasis on continuous integration and delivery. Learn how to deploy, configure, and take advantage of Jenkins for Continuous Integration and Continuous Delivery (CI/CD) and pipeline-like workflows. This LiveLesson walks you through the industry standard best practices of deploying Jenkins in a continuous testing environment. Learn to create fully functional Jenkins servers based on Infrastructure as Code (IaC) as well as deploy Jenkins in both AWS and Google Cloud. Learn the advanced features of Jenkins, including the Jenkins Job Builder. Finally, learn several real-world Jenkins deployment case studies. The associated code can be accessed at: https://github.com/alfredodeza/static

and https://github.com/alfredodeza/pipeline-jobs About the Instructor Noah Gift is a lecturer at UC Davis Graduate School of Management MSBA program, the Graduate Data Science program, MSDS, at Northwestern, the Data Science program at UC Berkeley, and the USF Health Informatics program. He is teaching and designing graduate Machine Learning, AI, Data Science courses, and consulting on Machine Learning and Cloud Architecture for students and faculty. These responsibilities include leading a multi-cloud certification initiative for students. Noah is also a Python Software Foundation Fellow, AWS Subject Matter Expert (SME) on Machine Learning, AWS Certified Solutions Architect and AWS Academy Accredited Instructor, Google Certified Professional Cloud Architect, and Microsoft MT...
A beginner's guide to implementing continuous integration and continuous delivery using JenkinsAbout This Book*Speed up and increase software productivity and software delivery using Jenkins*Automate your build, integration, release, and deployment processes with Jenkins-and learn how continuous integration (CI) can save you time and money*Explore the power of continuous delivery using Jenkins through powerful real-life examplesWho This Book Is ForThis book is for anyone who wants to exploit the power of Jenkins. This book servers a great starting point for those

who are in the field DevOps and would like to leverage the benefits of CI and continuous delivery in order to increase productivity and reduce delivery time.What You Will Learn*Take advantage of a continuous delivery solution to achieve faster software delivery*Speed up productivity using a continuous Integration solution through Jenkins*Understand the concepts of CI and continuous delivery*Orchestrate many DevOps tools using Jenkins to automate builds, releases, deployment, and testing*Explore the various features of Jenkins that make DevOps activities a piece of cake*Configure multiple build machines in Jenkins to maintain load balancing*Manage users, projects, and permissions in Jenkins to ensure better security*Leverage the power of plugins in JenkinsIn DetailIn past few years, Agile software development has seen tremendous growth across the world. There is huge demand for software delivery solutions that are fast yet flexible to frequent amendments. As a result, CI and continuous delivery methodologies are gaining popularity. Jenkins' core functionality and flexibility allows it to fit in a variety of environments and can help streamline the development process for all stakeholders.This book starts off by explaining the concepts of CI and its significance in the Agile world with a whole chapter dedicated to it. Next, you'll learn to configure and set up Jenkins. You'll gain a foothold in implementing CI and continuous

delivery methods. We dive into the various features offered by Jenkins one by one exploiting them for CI.After that, you'll find out how to use the built-in pipeline feature of Jenkins. You'll see how to integrate Jenkins with code analysis tools and test automation tools in order to achieve continuous delivery. Next, you'll be introduced to continuous deployment and learn to achieve it using Jenkins.Through this book's wealth of best practices and real-world tips, you'll discover how easy it is to implement a CI service with Jenkins.
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 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.

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 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 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 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.

In the world of DevOps automation and Auto Devops, Big Data Analytics, and Enterprise Cloud Applications, developing and managing enterprise grade applications has become a challenge! Jenkins continuous integration and continuous delivery capabilities along with robust Amazon AWS platform is a powerful combination and provides a seamless solution to implementing a Devops lifecycle. Welcome to Mastering Jenkins CI with Amazon AWS: Build DevOps Pipeline course, bringing you the latest technologies with up-to-date knowledge. If you or your company are facing challenges with enterprise app deployment or would like to learn how to automate software delivery using Jenkins Continuous Integration with Amazon AWS Beanstalk and Github as source repository? Look no further - The Mastering Jenkins CI with Amazon AWS: Build DevOps Pipeline course will help you gain solid understanding of all these concepts along with hand-on application in a flipped classroom manner! It is not only a comprehensive hands-on course with detailed concepts and their application, you are will not find a course similar to this. The flipped classroom model with hand-on learning will help you experience direct into the course as your begin your learning journey. In this course, you'll learn and practice: 1) Setting up Amazon AWS Environment from scratch 2) Installing Java JDK, NGINX, Elastic beanstalk CLI 3) Configuring AWS instances with security groups and roles 4) Install Jenkins using AWS Shell and implement a build server for Continuous Integration 5) Connect

GitHub as source repository for Python and PHP applications 6) Deploy an AWS Elastic Beanstalk with Jenkins CI, complete Devops pipeline, and much more.... What you'll learn - Learn complete Jenkins CI/CD pipeline implementation an Amazon AWS Elastic Beanstalk - Learn Github integration with Jenkins and Amazon AWS - Deploy Python and PHP applications using Github using Jenkins CI/CD build automation on AWS Beanstalk - Gain solid understanding of DevOps concepts along with software development lifecycle - Be able to fully master and integrate your application with Github, Jenkins CI, and Amazon AWS Beanstalk - Learn to use SSH Shell and basic Linux commands Requirements - AWS account is required. You need a credit card, then choose FREE Tier AWS account. - Knowledge of basic programming concepts such a object oriented programming is diserable - Understanding of basic HTML and CSS is also desireable - B... Speed up the software delivery process and software productivity using the latest features of Jenkins Key Features Take advantage of a Continuous Integration and Continuous Delivery solution to speed up productivity and achieve faster software delivery See all the new features introduced in Jenkins 2.x, such as Pipeline as code, Multibranch pipeline, Docker Plugin, and more Learn to implement Continuous Integration and Continuous Delivery by orchestrating multiple DevOps tools using Jenkins Book Description In past few years, agile software development has seen tremendous growth. There is a huge demand for software delivery solutions that are fast yet flexible to numerous

amendments. As a result, Continuous Integration (CI) and Continuous Delivery (CD) methodologies are gaining popularity. This book starts off by explaining the concepts of CI and its significance in the Agile. Next, you'll learn how to configure and set up Jenkins in many different ways. The book exploits the concept of "pipeline as code" and various other features introduced in the Jenkins 2.x release to their full potential. We also talk in detail about the new Jenkins Blue Ocean interface and the features that help to quickly and easily create a CI pipeline. Then we dive into the various features offered by Jenkins one by one, exploiting them for CI and CD. Jenkins' core functionality and flexibility allows it to fit in a variety of environments and can help streamline the development process for all stakeholders. Next, you'll be introduced to CD and will learn how to achieve it using Jenkins. Through this book's wealth of best practices and real-world tips, you'll discover how easy it is to implement CI and CD using Jenkins. What you will learn Get to know some of the most popular ways to set up Jenkins See all the new features introduced in the latest Jenkins, such as pipeline as code, Multibranch pipeline, and more Manage users, projects, and permissions in Jenkins to ensure better security Leverage the power of plugins in Jenkins Learn how to create a CI pipeline using Jenkins Blue Ocean Create a distributed build farm using Docker and use it with Jenkins Implement CI and CD using Jenkins See the difference between CD and Continuous Deployment Understand the concepts of CI Who this book is for The book is for those with little or no previous experience with Agile or CI and CD. It's a good

starting point for anyone new to this field who wants to leverage the benefits of CI and CD to increase productivity and reduce delivery time. It's ideal for Build and Release engineers, DevOps engineers, SCM (Software Configuration Management) engineers, developers, testers, and project managers. If you're already using Jenkins for CI, you can take your project to the next level--CD.

Readers will learn how to automate their build, integration, release, and deployment processes with Jenkins, the popular Java-based open source tool that has revolutionized the way teams think about continuous integration (CI).

Speed up the software delivery process and software productivity using the latest features of Jenkins Key Features Take advantage of a Continuous Integration and Continuous Delivery solution to speed up productivity and achieve faster software delivery See all the new features introduced in Jenkins 2.x, such as Pipeline as code, Multibranch pipeline, Docker Plugin, and more Learn to implement Continuous Integration and Continuous Delivery by orchestrating multiple DevOps tools using Jenkins Book Description In past few years, agile software development has seen tremendous growth. There is a huge demand for software delivery solutions that are fast yet flexible to numerous amendments. As a result, Continuous Integration (CI) and Continuous Delivery (CD) methodologies are gaining popularity. This book starts off by explaining the concepts of CI and its significance in the Agile. Next, you'll learn how to configure and set up Jenkins in many

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Today's web applications require frequent updates, not just by adding or upgrading features, but by maintaining and improving the software's existing code base as well. This concise book shows PHP developers how to use Jenkins, the popular continuous integration server, to monitor various aspects of software quality throughout a project's lifecycle. You'll learn how to implement continuous integration to automate processes for building and deploying regular software releases. The book also shows you how to use Jenkins to monitor and improve your application through continuous inspection. You'll come to understand why reducing complexity and eliminating duplicate code is just as important as introducing new functionality. Learn how to use Apache Ant to automate your software builds Create a job for your PHP project in Jenkins and set up a continuous integration environment Add static code analysis tools to your build for continuous inspection Use specialized PHP and Jenkins tools to simplify the automated build and continuous integration of your project Explore additional processes and techniques, such as adding automated integration tests
Configure and extend Jenkins to architect, build, and automate efficient software delivery pipelinesAbout 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 JenkinsWho This Book Is ForIf 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 AnsibleIn DetailWith 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 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/Save 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 approachThis 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 beginner's guide to implementing Continuous Integration and Continuous Delivery using Jenkins About This Book Speed up and increase software productivity and software delivery using Jenkins Automate your build, integration, release, and deployment processes with Jenkins—and learn how continuous integration (CI) can save you time and money Explore the power of continuous delivery using Jenkins through powerful real-life examples Who This Book Is For This book is for anyone who wants to exploit the power of Jenkins. This book servers a great starting point for those who are in the field DevOps and would like to leverage the benefits of CI and continuous delivery in order to increase productivity and reduce delivery time. What You Will Learn Take advantage of a continuous delivery solution to achieve faster software delivery Speed up productivity using a continuous Integration solution through Jenkins Understand the concepts of CI and continuous delivery Orchestrate many DevOps tools using Jenkins to automate builds, releases, deployment, and testing Explore the various features of Jenkins that make DevOps activities a piece of cake Configure multiple build machines in Jenkins to maintain load balancing Manage users, projects, and permissions in Jenkins to ensure better security Leverage the power of plugins in Jenkins In Detail In past few years, Agile software development has seen tremendous growth across the world. There is huge demand for software delivery solutions that are fast yet flexible to frequent amendments. As a result, CI and continuous delivery methodologies are gaining popularity. Jenkins' core

functionality and flexibility allows it to fit in a variety of environments and can help streamline the development process for all stakeholders. This book starts off by explaining the concepts of CI and its significance in the Agile world with a whole chapter dedicated to it. Next, you'll learn to configure and set up Jenkins. You'll gain a foothold in implementing CI and continuous delivery methods. We dive into the various features offered by Jenkins one by one exploiting them for CI. After that, you'll find out how to use the built-in pipeline feature of Jenkins. You'll see how to integrate Jenkins with code analysis tools and test automation tools in order to achieve continuous delivery. Next, you'll be introduced to continuous deployment and learn to achieve it using Jenkins. Through this book's wealth of best practices and real-world tips, you'll discover how easy it is to implement a CI service with Jenkins. Style and approach This is a step-by-step guide to setting up a CI and continuous delivery system loaded with hands-on examples

Over 90 recipes to produce great results from Jenkins using pro-level practices, techniques, and solutions In Detail Jenkins is an award-wining and one of the most popular Continuous Integration servers in the market today. It was designed to maintain, secure, communicate, test, build, and improve the software development process. This book starts by examining the most common maintenance tasks. This is followed by steps that enable you to enhance the overall security of Jenkins. You will then explore the relationship between Jenkins builds and Maven pom.xml. Then, you will learn how to use plugins to display code metrics and fail builds to improve quality, followed by how to run performance

and functional tests against a web application and web services. Finally, you will see what the available plugins are, concluding with best practices to improve quality. What You Will Learn Integrate Jenkins with LDAP and SSO solutions Maintain and secure Jenkins Run an integration server firing automatic functional and performance tests Communicate through social media and by plotting custom data Skin Jenkins to your corporate look and feel Refine the use of code metrics to improve quality Write your first custom Jenkins plugin Apply tweaks to optimize your use of Jenkins Downloading the example code for this book. You can download the example code files for all Packt books you have purchased from your account at http://www.PacktPub.com. If you purchased this book elsewhere, you can visit http://www.PacktPub.com/support and register to have the files e-mailed directly to you.

Get a problem-solution approach enriched with code examples for practical and easy comprehension About This Book Explore the use of more than 40 best-of-breed plug-ins for improving efficiency Secure and maintain Jenkins 2.x by integrating it with LDAP and CAS, which is a Single Sign-on solution Efficiently build advanced pipelines with pipeline as code, thus increasing your team's productivity Who This Book Is For If you are a Java developer, a software architect, a technical project manager, a build manager, or a development or QA engineer, then this book is ideal for you. A basic understanding of the software development life cycle and Java development is needed, as well as a rudimentary understanding of Jenkins. What You Will Learn Install and Configure Jenkins 2.x on AWS and Azure Explore effective ways to manage and monitor Jenkins 2.x Secure Jenkins 2.x using Matrix-based Security Deploying a WAR file from Jenkins 2.x to Azure App Services and AWS Beanstalk Automate deployment of application on AWS and Azure

PaaS Continuous Testing – Unit Test Execution, Functional Testing and Load Testing In Detail Jenkins 2.x is one of the most popular Continuous Integration servers in the market today. It was designed to maintain, secure, communicate, test, build, and improve the software development process. This book will begin by guiding you through steps for installing and configuring Jenkins 2.x on AWS and Azure. This is followed by steps that enable you to manage and monitor Jenkins 2.x. You will also explore the ways to enhance the overall security of Jenkins 2.x. You will then explore the steps involved in improving the code quality using SonarQube. Then, you will learn the ways to improve quality, followed by how to run performance and functional tests against a web application and web services. Finally, you will see what the available plugins are, concluding with best practices to improve quality. Style and approach This book provides a problem-solution approach to some common tasks and some uncommon tasks using Jenkins 2.x and is well-illustrated with practical code examples.

Pro iOS Continuous Integration teaches you how to utilize the strengths of continuous integration in your everyday work. CI is more popular now than ever, as iOS developers realize how time-consuming building and deploying an application for testing purposes and quality assurance can be. This book shows you how to make your developing life easier, with real-world applications and examples. With this book, you will learn what continuous integration and continuous delivery really are and how they can be used in your iOS projects. You will learn how to release an iOS application outside the App Store using Xcode. You'll understand how to leverage the power of the command line to build your projects, and run your tests. You'll use Jenkins and Bamboo to architect automatic builds and automate the whole build process. In addition, you'll also learn how to use Xcode server and bots,

what quality assurance tools can be used to measure the quality of your code, and how to send builds to your beta testers. Author Romain Pouclet provides hands-on, practical experience in iOS continuous integration and, using this book, you will see that it's not actually that hard to set up a fully-featured continuous integration platform, whether you are an independent iOS developer working from home or a member of a team in a big company.

A hands-on course that will guide you through the Jenkins Continuous Delivery pipeline About This Video Fully understand Jenkins Pipeline. Configure Jenkins effectively to build, test, and deploy your software using JenkinsFile. Set up an isolated build environment with Docker Description In this course you will understand the key concepts of DevOps and delve into Jenkins Pipeline, a set of plugins that provides a toolkit for designing simple-to-complex delivery pipelines as code. To design a production-ready delivery pipeline, you will start by creating a simple pipeline and understanding Jenkins Pipeline terms and its particularities. Next, you will set up Docker to create isolated build environments. To consolidate your learning, you will create a delivery pipeline to build, test, and deploy a Java web project. In this project, you will understand and implement the different stages of the pipeline towards Continuous Delivery. What you will learn Key concepts of DevOps and a Continuous Delivery pipeline Use Jenkins Pipeline and JenkinsFile, the new concept of CI as code Explore Jenkins Pipeline to build, test, and deploy projects Work with Docker containers in a Jenkins context Build and test Java web applications. Who should take this course If you are a Java developer, a software architect, a technical project manager, a build manager, or a development or QA engineer, then this tutorial is ideal for you. A basic understanding of the software development life cycle and Java development is needed, as well as a

rudimentary understanding of Jenkins. About the author Rodrigo is a Certified Jenkins Engineer and has 14+ years' experience in software development with different programming languages and technologies in different countries (Brazil, US, Portugal, Germany, and Austria) and projects in companies ranging from financial institution to game and e-commerce ventures including Walmart.com, Goodgame Studios and HERE. He is an enthusiastic practitioner of Agile methodologies, Continuous Delivery, and DevOps, with large-scale adoption experience. He is always seeking to optimize the software development life cycle through automation, process improvements, and developing new tools and techniques. Rodrigo holds a B.S. in Computer Science and a post-graduate qualification in Software Engineering. About Packt Video Packt Video publishes friendly, practical video tutorials, packed with practical skills, concepts and guidance to help you succeed with...

This book contains a selection of papers from the 2020 International Conference on Software Process Improvement (CIMPS 20), held between the 21st and 23rd of October in Mazatlan, Sinaloa, Mexico. The CIMPS 20 is a global forum for researchers and practitioners that present and discuss the most recent innovations, trends, results, experiences and concerns in the several perspectives of Software Engineering with clear relationship but not limited to software processes, Security in Information and Communication Technology and Big Data Field. The main topics covered are: Organizational Models, Standards and Methodologies, Software Process Improvement, Knowledge Management, Software Systems, Applications and Tools, Information and Communication Technologies and Processes in Non-software Domains (mining, automotive, aerospace, business, health care, manufacturing, etc.) with a demonstrated relationship to Software Engineering Challenges.

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