

Continuous Integration With Jenkins

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[Continuous Integration \(CI\) with Jenkins Configuration](#) - Kevin Bowersox 2017

"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.

Hands-on Continuous Integration and Automation with Jenkins - Sandro Cirulli 2018

"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.

Continuous Integration (CI) with Jenkins Maven Builds - Kevin Bowersox 2017

"This course introduces the concepts, techniques, and configuration necessary to perform a Maven build within a Jenkins automation server. First, you'll install and configure the Maven integration plugin to build and customize a Maven project within Jenkins. Then watch how Maven standardizes builds using its highly effective methods for compiling, documenting, and testing code. You will see how effortlessly it handles dependencies, learn how dependencies can trigger builds, and explore Maven's support for multi-module projects."--Resource description page.

[Continuous Delivery with Docker and Jenkins](#) - Rafal Leszko 2017-08-24

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 intended 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 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.

[Jenkins 2.x Continuous Integration Cookbook](#) - Mitesh Soni 2017-10-30

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.

CI/CD Pipeline Using Jenkins Unleashed - Pranoday Pramod Dingare 2022-07-13

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

Jenkins Bootcamp - Jason Taylor 2017

Continuous Integration and Deployment techniques at your fingertips About This Video Integrate Jenkins in your testing for continuous inspection Gain from the decades of experience that Jason Taylor carries with him and learn the best practices of working with Jenkins Advance your knowledge and add functionality to your application by integrating other plugins In Detail Jenkins is an open source continuous integration tool written in Java, which can be installed on many operating systems and supports a myriad of tools and technologies. This means that it provides tremendous value to those comfortable or interested in other operating systems and/or technologies. This comprehensive course is designed to show you how to setup and run a Jenkins CI server starting with continuous inspection (build, test and analysis), all the way through to continuous deployment. It provides you with a strong foundation for implementing continuous inspection, continuous integration, continuous delivery, and even continuous deployment at your company or studio. We'll also cover how to use Jenkins as an artifact repository which is used to store the build artifacts, like jars and wars, after successful builds. This is particularly useful when integrating Jenkins with other tools in a more comprehensive software delivery strategy. Jenkins can do so much more than simply building, which we'll understand as we hook up a standard set of unit testing and quality analysis tools for Java projects. In order to keep the course short and to-the-point, it has been carefully crafted in order to provide a complete path from CI to CD.

Continuous Delivery with Docker and Jenkins - Rafal Leszko 2022-05-04 Create a complete continuous delivery process using modern DevOps tools such as Docker, Jenkins, Kubernetes, Ansible, Terraform, and many more Key Features • Build reliable and secure applications using Docker containers • Create a highly available environment to scale Jenkins and your services using Kubernetes • Automate your release process end-to-end Book Description This updated third edition of Continuous Delivery with Docker and Jenkins will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of app development. You'll start by setting up a Docker server

and configuring Jenkins on it. Next, you'll discover steps for building applications and microservices on Dockerfiles and integrating them with Jenkins using continuous delivery processes such as continuous integration, automated acceptance testing, configuration management, and Infrastructure as Code. Moving ahead, you'll learn how to ensure quick application deployment with Docker containers, along with scaling Jenkins using Kubernetes. Later, you'll explore how to deploy applications using Docker images and test them with Jenkins. Toward the concluding chapters, the book will focus on missing parts of the CD pipeline, such as the environments and infrastructure, application versioning, and non-functional testing. By the end of this continuous integration and continuous delivery book, you'll have gained the skills you need to enhance the DevOps workflow by integrating the functionalities of Docker and Jenkins. What you will learn

- Grasp Docker fundamentals and dockerize applications for the CD process
- Understand how to use Jenkins on-premises and in the cloud
- Scale a pool of Docker servers using Kubernetes
- Write acceptance tests using Cucumber
- Run tests in the Docker ecosystem using Jenkins
- Provision your servers and infrastructure using Ansible and Terraform
- Publish a built Docker image to a Docker registry
- Deploy cycles of Jenkins pipelines using community best practices

Who this book is for The book is for DevOps engineers, system administrators, Docker professionals, or anyone who wants to explore the power of working with Docker and Jenkins together. No prior knowledge of DevOps is required to get started.

[Continuous Integration \(CI\) with Jenkins Tool Installation](#) - Kevin Bowersox 2017

"Building a Jenkins automation server based Continuous Integration (CI) pipeline requires five specific software components: Java, Git, Apache Maven, Apache Tomcat, and Jenkins. In this course, you'll develop a solid understanding of the function of each component, how they integrate to do the work of a CI pipeline, and how to install each component."-- Resource description page.

Hands-on Pipeline as YAML with Jenkins - Mitesh Soni 2021-06-14

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

Jenkins: The Definitive Guide - John Ferguson Smart 2011-07-12 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
Continuous Integration (CI) With Jenkins - Fundamentals - Kevin Bowersox 2017

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. Discover why 1

million+ coders use Jenkins to speed up their development process Learn about the history of the Jenkins automation server and how it works See how Jenkins automates tasks like testing, compiling, documenting, and reporting Understand how to integrate the tools with Jenkins that ensure code quality Gain hands-on experience using Jenkins and the Jenkins tools console Explore and understand the meaning of continuous integration, delivery, and deployment Kevin Bowersox leads development teams that build Java web applications for the federal government. A Java expert with 17 years of experience, Kevin's primary passion is helping coders understand and enjoy the benefits of automating software development practices. He holds a BA in Information Sciences and Technology from Penn State and is the author of multiple O'Reilly titles on topics such as Spring Framework, Hibernate, Apache Maven, and Jenkins.

Continuous Integration (CI) with Jenkins - Kevin Bowersox 2017 "This course teaches you how to incorporate a rigorous automated quality assurance (QA) process into the Maven build process inside Jenkins. It introduces four popular Jenkins plugins: jUnit, JaCoCo, FindBugs, and Checkstyle. These plugins make it possible to automate four critical QA checks: unit testing, code coverage, bug detection, and standard formatting. By the end of the lessons, you'll understand how to use these plugins to ensure that your continuous integration, delivery or deployment practices are delivering top notch software."--Resource description page.

Continuous Integration (CI) with Jenkins Server Deployments - Kevin Bowersox 2017

"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.

Pro Continuous Delivery - Nikhil Pathania 2017-07-03

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

Continuous Integration, Delivery, and Deployment - Sander Rossel 2017-10-30

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.

Continuous Integration (CI) with Jenkins Basic Build Jobs - Kevin Bowersox 2017

"The Jenkins community defines a Jenkins 'project' as a user configured description of the work that Jenkins should perform; and a "build" as a single execution of a project. This course provides a hands-on, step-by-step opportunity to create a very basic Jenkins project and use key components of the Jenkins server toolset to perform a build in support of that project. Along the way, you will learn to use the Jenkins automation server to establish builds with parameters, advanced triggers, SCM integration, multiple build steps, artifacts, and several other specialized functions. By the end of the course, you'll know how to customize and automate project builds to meet the specialized needs for building application source code as part of an automated deployment pipeline."--Resource description page.

Learning Continuous Integration with Jenkins - Nikhil Pathania 2017-12-20

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.

[CI/CD Pipeline with Docker and Jenkins](#) - Sandeep Rawat 2023-01-12

A Practical Guide to Mastering Modern-day Software Development KEY FEATURES ● Leverage the power of Docker for faster deployment and migrations. ● Learn how to create a Continuous Integration pipeline in Jenkins. ● Get familiar with different types of deployments in Continuous Delivery. DESCRIPTION 'CI/CD Pipeline with Docker and Jenkins' is the right mix of narrative, concepts, and real-life implementation. The book focuses on the CI/CD maturity journey of a team from a DevOps perspective. The book takes you on a CI/CD journey of a project, starting from identifying the challenges faced by the team and how the team uses CI as a first step to overcome the problems. Moving on, the book explains

how the team matures via the Jenkins shared library and Dockerization. The later part of the book covers the next journey, where the DevOps team decides to introduce CD to mature the DevOps practices of the project further. Here, the book explains how the DevOps team learns about the various implementations of CD and applies them via Jenkins. Given that there are multiple technologies to cover, the journey starts from the simplest one and slowly goes on to higher concepts ensuring that you follow the right learning path. To keep things in perspective, a sample project has been included with the book, and all the concepts of CI/CD are implemented in it. You can work with it, test out different scenarios, and can refer to them for your projects.

WHAT YOU WILL LEARN

- Design a CI implementation plan in terms of Pre and Post Deployment integration checks.
- Learn how to run your CI/CD jobs in Docker containers.
- Understand how CI and CD work together end to end to achieve modern software delivery goals.
- Design and implement a very comprehensive CI process of any stack on any platform.
- Assess and identify the CD requirements of a project and architect the right CD solution.

WHO THIS BOOK IS FOR This book is for current and aspiring tech professionals, students, and anyone who wishes to build a career in DevOps. At the same time, it will also prove essential to existing engineers and project owners looking to streamline their DevOps practices with industry standards, specifically the CI/CD part.

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Mastering Jenkins - Jonathan McAllister 2015-10-27

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 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.

[Integrating PHP Projects with Jenkins](#) - Sebastian Bergmann 2011-09-23

Most web applications are changed and adapted quite frequently and quickly. Their environment, for example the size and the behavior of the user base, are constantly changing. What was sufficient yesterday can be insufficient today. Especially in a web environment it is important to monitor and continuously improve the internal quality not only when developing, but also when maintaining the software. Jenkins is the leading open-source continuous integration server. Thanks to its thriving plugin ecosystem, it supports building and testing virtually any project. This book explains how you can leverage Jenkins to monitor the various aspects of software quality in a PHP software project.

Gradle in Action - Benjamin Muschko 2014-02-19

Summary Gradle in Action is a comprehensive guide to end-to-end project automation with Gradle. Starting with the basics, this practical, easy-to-read book discusses how to build a full-fledged, real-world project. Along the way, it touches on advanced topics like testing, continuous integration, and monitoring code quality. You'll also explore tasks like setting up your target environment and deploying your software. About the Technology Gradle is a general-purpose build automation tool. It extends the usage patterns established by its forerunners, Ant and Maven, and allows builds that are expressive, maintainable, and easy to understand. Using a flexible Groovy-based DSL, Gradle provides declarative and extendable language elements that

let you model your project's needs the way you want. About the Book Gradle in Action is a comprehensive guide to end-to-end project automation with Gradle. Starting with the basics, this practical, easy-to-read book discusses how to establish an effective build process for a full-fledged, real-world project. Along the way, it covers advanced topics like testing, continuous integration, and monitoring code quality. You'll also explore tasks like setting up your target environment and deploying your software. The book assumes a basic background in Java, but no knowledge of Groovy. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. Whats Inside A comprehensive guide to Gradle Practical, real-world examples Transitioning from Ant and Maven In-depth plugin development Continuous delivery with Gradle About the Author Benjamin Muschko is a member of the Gradleware engineering team and the author of several popular Gradle plugins. Table of Contents PART 1 INTRODUCING GRADLE Introduction to project automation Next-generation builds with Gradle Building a Gradle project by example PART 2 MASTERING THE FUNDAMENTALS Build script essentials Dependency management Multiproject builds Testing with Gradle Extending Gradle Integration and migration PART 3 FROM BUILD TO DEPLOYMENT IDE support and tooling Building polyglot projects Code quality management and monitoring Continuous integration Artifact assembly and publishing Infrastructure provisioning and deployment

Jenkins Continuous Integration Cookbook - Second Edition - Alan Berg 2015

Over 90 recipes to produce great results from Jenkins using pro-level practices, techniques, and solutions In Detail Jenkins is an award-winning 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.

[Learning Continuous Integration with Jenkins](#) - Nikhil Pathania
2016-05-31

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

Continuous Integration (CI) with Jenkins - Kevin Bowersox 2017

"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.

Pipeline as Code - Mohamed Labouardy 2021-11-23

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 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 *Hands-on Pipeline as Code with Jenkins* - Ankita Patil 2021-02-11 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.

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Jenkins 2: Up and Running - Brent Laster 2018-05-02

Design, implement, and execute continuous delivery pipelines with a level of flexibility, control, and ease of maintenance that was not possible with Jenkins before. With this practical book, build administrators, developers, testers, and other professionals will learn how the features in Jenkins 2 let you define pipelines as code, leverage integration with other key technologies, and create automated, reliable pipelines to simplify and accelerate your DevOps environments. Author Brent Laster shows you how Jenkins 2 is significantly different from the more traditional, web-only versions of this popular open source automation platform. If you're familiar with Jenkins and want to take advantage of the new technologies to transform your legacy pipelines or build new modern,

automated continuous delivery environments, this is your book. Create continuous delivery pipelines as code with the Jenkins domain-specific language Get practical guidance on how to migrate existing jobs and pipelines Harness best practices and new methods for controlling access and security Explore the structure, implementation, and use of shared pipeline libraries Learn the differences between declarative syntax and scripted syntax Leverage new and existing project types in Jenkins Understand and use the new Blue Ocean graphical interface Take advantage of the capabilities of the underlying OS in your pipeline Integrate analysis tools, artifact management, and containers

Learning Continuous Integration with Jenkins 2.X- Second Edition

- Nikhil Pathania 2017-12-20

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.

Computer Networks and Inventive Communication Technologies - S. Smys 2021-06-02

This book is a collection of peer-reviewed best selected research papers presented at 3rd International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT 2020). The book covers new results in theory, methodology, and applications of computer networks and data communications. It includes original papers on computer networks, network protocols and wireless networks, data communication technologies, and network security. The proceedings of this conference is a valuable resource, dealing with both the important core and the specialized issues in the areas of next generation wireless network design, control, and management, as well as in the areas of protection, assurance, and trust in information security practice. It is a reference for researchers, instructors, students, scientists, engineers, managers, and industry practitioners for advance work in the area.

[Continuous Integration \(CI\) with Jenkins Using Plugins](#) - Kevin Bowersox

2017

"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.

Effective Jenkins - Rodrigo Russo 2017

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...

Jenkins: The Definitive Guide - John Ferguson Smart 2011-07-12

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

Jenkins Continuous Integration Cookbook - Mitesh Soni 2017-10-30

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.

Hands-On Continuous Integration and Delivery - Jean-Marcel Belmont 2018-08-29

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.

Jenkins - John Smart 2011-07-19

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).

Jenkins - Manuj Aggarwal 2018

"Jenkins is an award-winning open source toolset which enables us to build very sophisticated automated build pipelines very quickly. It has extensive community support which has augmented the core

functionality of Jenkins by building and sharing hundreds of very useful plugins. Implementing continuous integration with Jenkins can help us immensely in reducing the risk within our software development lifecycle. It catches us bugs early and increases the quality of our software products. This, in turn, reduces the overall cost to develop innovative software in any environment - startups and enterprise alike. Today the technology sector is experiencing a boom throughout the world. There are hundreds of startups launching every day. In order to move fast, these startups need people who are skilled at automating as much as possible. Mostly, progressive startups favor implementing completely automated DevOps pipelines from the get go. They realize that these practices of continuous integration (CI) and DevOps will yield tremendous benefits regarding speed and agility. The demand for these skills has been steadily rising over the last few years. The demand for professionals who have experience with these tools has been growing steadily over the last few years. The salaries and consulting rates for these skills have also been rising and are only bound to go up as the demand for these skills remains steady or increases."--Resource description page.

Jenkins Essentials - Second Edition - Mitesh Soni 2017-06-30

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 2>About 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 Azure

In Detail 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 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 approach This book provides simple, step-by-step instructions, taking you from start to finish in accomplishing real-world Continuous Integration and Continuous Delivery tasks.

DevOps: Continuous Delivery, Integration, and Deployment with DevOps
- Sricharan Vadapalli 2018-03-13

Explore the high-in demand core DevOps strategies with powerful DevOps tools such as Ansible, Jenkins, and Chef

Key Features

- Get acquainted with methodologies and tools of the DevOps framework
- Perform continuous integration, delivery, deployment, and monitoring using DevOps tools
- Explore popular tools such as Git, Jenkins, Maven, Gerrit, Nexus, Selenium, and so on
- Embedded with assessments that

will help you revise the concepts you have learned in this book

Book Description DevOps is the most widely used software engineering culture and practice that aim at software development and operation.

Continuous integration is a cornerstone technique of DevOps that merges software code updates from developers into a shared central mainline. This book takes a practical approach and covers the tools and strategies of DevOps. It starts with familiarizing you with DevOps framework and then shows how to perform continuous delivery, integration, and deployment with DevOps. You will explore DevOps process maturity frameworks and progression models with checklist templates for each phase of DevOps. You will also be familiar with agile terminology, methodology, and the benefits accrued by an organization by adopting it. You will also get acquainted with popular tools such as Git, Jenkins, Maven, Gerrit, Nexus, Selenium, and so on. You will learn configuration, automation, and the implementation of infrastructure automation (Infrastructure as Code) with tools such as Chef and Ansible. This book is ideal for engineers, architects, and developers, who wish to learn the core strategies of DevOps. What you will learn

- Get familiar with life cycle models, maturity states, progression and best practices of DevOps frameworks
- Learn to set up Jenkins and integrate it with Git
- Know how to build jobs and perform testing with Jenkins
- Implement infrastructure automation (Infrastructure as Code) with tools such as Chef and Ansible
- Understand continuous monitoring process with tools such as Splunk and Nagios
- Learn how Splunk improves the code quality

Who this book is for This book is for engineers, architects, and developers, who wish to learn the core strategies of DevOps.

Extending Jenkins - Donald Simpson 2015-12-28

Get a complete walkthrough of the many interfaces available in Jenkins with the help of real-world examples to take you to the next level with Jenkins

About This Book Find out how to interact with Jenkins from within Eclipse, NetBeans, and IntelliJ IDEA

Develop custom solutions that act upon Jenkins information in real time

A step-by-step, practical guide to help you learn about extension points in existing plugins and how to build your own plugin

Who This Book Is For This book is aimed

primarily at developers and administrators who are interested in taking their interaction and usage of Jenkins to the next level. The book assumes you have a working knowledge of Jenkins and programming in general, and an interest in learning about the different approaches to customizing and extending Jenkins so it fits your requirements and your environment perfectly. What You Will Learn Retrieve and act upon Jenkins information in real time Find out how to interact with Jenkins through a variety of IDEs Develop your own Form and Input validation and customization Explore how Extension points work, and develop your own Jenkins plugin See how to use the Jenkins API and command-line interface Get to know how to remotely update your Jenkins configuration Design and develop your own Information Radiator Discover how Jenkins customization can help improve quality and reduce costs In Detail Jenkins CI is the leading open source continuous integration server. It is written in Java and has a wealth of plugins to support the building and testing of virtually any project. Jenkins supports multiple Software

Configuration Management tools such as Git, Subversion, and Mercurial. This book explores and explains the many extension points and customizations that Jenkins offers its users, and teaches you how to develop your own Jenkins extensions and plugins. First, you will learn how to adapt Jenkins and leverage its abilities to empower DevOps, Continuous Integration, Continuous Deployment, and Agile projects. Next, you will find out how to reduce the cost of modern software development, increase the quality of deliveries, and thereby reduce the time to market. We will also teach you how to create your own custom plugins using Extension points. Finally, we will show you how to combine everything you learned over the course of the book into one real-world scenario. Style and approach Extending Jenkins explores and explains advanced Jenkins functionality from a practical point of view, teaching you real-world skills that will help you get more from this powerful software. Each key topic is explained clearly with a practical example, and in sufficient detail so you understand the concepts and can then develop your own solutions using your preferred software and languages.