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Continuous Delivery Continuous Integration Continuous Delivery in Java A Practical Guide to Continuous Delivery Grokking Continuous Delivery Continuous Integration, Delivery, and Deployment Continuous Delivery for Mobile with fastlane DevOps: Continuous Delivery, Integration, and Deployment with DevOps Continuous Delivery : Reliable Software Releases Through Build, Test, and Deployment Automation Continuous Delivery Continuous Delivery in Java Pipeline as Code Hands-On Continuous Integration and Delivery Lean Enterprise Continuous Delivery 2.0 Continuous Delivery Pipeline - Where Does It Choke? Continuous Delivery and DevOps Using Liberty for DevOps, Continuous Delivery, and Deployment Learning Continuous Integration with Jenkins Accelerate Docker for Developers Continuous Architecture Recipes for Continuous Database Integration Practical DevOps Devops in Practice Continuous Delivery with Docker and Jenkins More Agile Testing iOS 11 Swift Programming Cookbook Modern Software Engineering Cloud-Native Continuous Integration and Delivery The DevOps 2.4 Toolkit Hands-on Pipeline as Code with Jenkins Agile Application Security Continuous Practices: A Strategic Approach to Accelerating the Software Production System DevOps for Web Development Learning Continuous Integration with TeamCity Learning Continuous Integration with Jenkins Python Continuous Integration and Delivery Practical DevOps, Second Edition Cloud Native Python

An exploration of continuous deployment to a Kubernetes cluster, using a wide range of Kubernetes platforms with instructions on how to develop a pipeline on a few of the most commonly used CI/CD platforms. Key FeaturesThe fifth book of DevOps expert Viktor Farcic's bestselling DevOps Toolkit series, with a discussion of the difference between continuous delivery vs. continuous deployment, and which is best for the userGuides readers through the continuous deployment process using Jenkins in a Kubernetes clusterProvides an overview of the best practices for building, testing, and deploying applications through fully automated pipelines.Book Description Building on The DevOps 2.3 Toolkit: Kubernetes, Viktor Farcic brings his latest exploration of the Docker technology as he records his journey to continuously deploying applications with Jenkins into a Kubernetes cluster. The DevOps 2.4 Toolkit: Continuously Deploying Applications with Jenkins to a Kubernetes Cluster is the latest book in Viktor Farcic's series that helps you build a full DevOps Toolkit. This book guides readers through the process of building, testing, and deploying applications through fully automated pipelines. Within this book, Viktor will cover a wide-range of emerging topics, including an exploration of continuous delivery and deployment in Kubernetes using Jenkins. It also shows readers how to perform continuous integration inside these clusters, and discusses the distribution of Kubernetes applications, as well as installing and setting up Jenkins. Work with Viktor and dive into the creation of self-adaptive and self-healing systems within Docker. What you will learnGain an understanding of continuous deploymentLearn how to build, test, and deploy applications into KubernetesExecute continuous integration inside containersWho this book is for Readers with an intermediate level understanding of Kubernetes and hands-on experience. 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. Continuous integration, delivery and deployment promise rapid feedback and short turn-around times, which serve as enablers for greater responsiveness in the face of changing markets and disruptive technologies alike. It is this responsiveness to threats and opportunities that makes the difference between success and extinction in the software industry of tomorrow. Coverage includes an overview of the various continuous practices, explanations and guidance adapted to different contexts and circumstances and a concrete structured method to leverage continuous practices for your needs. Daniel Ståhl and Torvald Mårtensson

have as researchers and practitioners observed, studied and participated in a multitude of software projects in a range of companies and segments of the software industry. Now they have teamed up to share their experiences and insights and provide hands-on guidance to software engineers looking to improve their continuous practices.

Build cloud native applications in Python About This Book This is the only reliable resource that showcases the tools and techniques you need build robust and resilient cloud native applications in Python Learn how to architect your application on both, the AWS and Azure clouds for high availability Assess, monitor, and troubleshoot your applications in the cloud Who This Book Is For This book is ideal for developers with a basic knowledge of Python who want to learn to build, test, and scale their Python-based applications. No prior experience of writing microservices in Python is required.

What You Will Learn Get to know “the way of the cloud”, including why developing good cloud software is fundamentally about mindset and discipline Know what microservices are and how to design them Create reactive applications in the cloud with third-party messaging providers Build massive-scale, user-friendly GUIs with React and Flux Secure cloud-based web applications: the do's, don'ts, and options Plan cloud apps that support continuous delivery and deployment In Detail Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This book will be the one stop for you to learn all about building cloud-native architectures in Python. It will begin by introducing you to cloud-native architecture and will help break it down for you. Then you'll learn how to build microservices in Python using REST APIs in an event driven approach and you will build the web layer. Next, you'll learn about Interacting data services and building Web views with React, after which we will take a detailed look at application security and performance. Then, you'll also learn how to Dockerize your services. And finally, you'll learn how to deploy the application on the AWS and Azure platforms. We will end the book by discussing some concepts and techniques around troubleshooting problems that might occur with your applications after you've deployed them. This book will teach you how to craft applications that are built as small standard units, using all the proven best practices and avoiding the usual traps. It's a practical book: we're going to build everything using Python 3 and its amazing tooling ecosystem. The book will take you on a journey, the destination of which, is the creation of a complete Python application based on microservices over the cloud platform Style and approach Filled with examples, this book takes a step-by-step approach to teach you each and every configuration you need to make your application highly available and fault tolerant. This IBM® Redbooks® publication provides an example approach for an agile IT team to implement DevOps capabilities in their software delivery of a Java application. We introduce several tools that show how teams can achieve transparency, traceability, and automation in their application lifecycle to all of the stakeholders to deliver a high-quality application that meets its initial requirements. The application that is built highlights the composable and dynamic nature of the Liberty run time. The Liberty run time helps developers to get their applications up and running quickly by using only the programming model features that are required for their applications. The target audience for this book is IT developers, IT managers, IT architects, project managers, test managers, test developers, operations managers, and operations developers. 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. This course teaches concepts by deep-dive on-hand exercises. Throughout the course, you will learn the required toolset by using both on-premise, open-source, and hosted cloud solutions. You'll find checklists, best practices, and critical points mentioned throughout the lessons, making things more interesting.

Key FeaturesExplains in detail cloud-native continuous integration and delivery Demonstrates how to run a build in a CI/CD system Shows continuous delivery to Docker Registry and continuous deployment to Kubernetes

Book Description Cloud-native software development is based on developing distributed applications focusing on speed, stability, and high availability. With this paradigm shift, software development has changed substantially and converted into a more agile environment where distributed teams develop distributed applications. In addition, the environment where the software is built, tested and deployed has changed from bare-metal servers to cloud systems. In this course, the new concepts of cloud-native Continuous Integration and Delivery are discussed in depth. Cloud-native tooling and services such as cloud providers (AWS, Google Cloud) containerization with Docker, container-orchestrators such as Kubernetes will be a part of this course to teach how to analyze and design modern software delivery pipelines. What you will learn

- Learn the basics of DevOps patterns for cloud-native architecture
- Learn the cloud-native way of designing CI/CD systems
- Create multi-stage builds and tests for Docker.
- Apply the best practices for Docker container images
- Experiment using GitLab CI/CD pipelines for continuous integration
- Build and test their applications on cloud
- Learn how to continuously deliver to Docker registry
- Learn how to continuously deploy to Kubernetes
- Experiment using GitLab CI/CD pipelines for Continuous Delivery
- Configure and deploy software to Kubernetes using Helm

Who this book is for This book is ideal for professionals interested in cloud-native software development. To benefit the most from this book, you must be familiar with developing, building, testing, integrating, and deploying containerized microservices into cloud systems. Agile continues to be the most adopted software development methodology among organizations worldwide, but it generally hasn't integrated well with traditional security management techniques. And most security professionals aren't up to speed in their understanding and experience of agile development. To help bridge the divide between these two worlds, this practical guide introduces several security tools and techniques adapted specifically to integrate with agile development. Written by security experts and agile veterans, this book begins by introducing security principles to agile practitioners, and agile principles to security practitioners. The authors also reveal problems they encountered in their own experiences with agile security, and how they worked to solve them. You'll learn how to:

- Add security practices to each stage of your existing development lifecycle
- Integrate security with planning, requirements, design, and at the code level
- Include security testing as part of your team's effort to deliver working software in each release
- Implement regulatory compliance in an agile or DevOps environment
- Build an effective security program through a culture of empathy, openness, transparency, and collaboration

Winner of the Shingo Publication Award Accelerate

your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it?—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level. DevOps is a cultural and professional movement that's trying to break these walls. Focused on automation, collaboration, tool sharing and knowledge sharing, DevOps has been revealing that developers and system engineers have a lot to learn from one another. In this book, Danilo Sato will show you how to implement DevOps and Continuous Delivery practices so as to raise your system's deployment frequency at the same time as increasing the production application's stability and robustness. You will learn how to automate a web application's build and deploy phases and the infrastructure management, how to monitor the system deployed to production, how to evolve and migrate an architecture to the cloud and still get to know several other tools that you can use on your company 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. Gain the techniques and tools that enable a smooth and efficient software development process in this quick and practical guide on Python continuous integration (CI) and continuous delivery (CD). Based on example applications, this book introduces various kinds of testing and shows you how to set up automated systems that run these tests, and install applications in different environments in controlled ways. Python Continuous Integration and Delivery tackles the technical problems related to software development that are typically glossed over in pure programming texts. After reading this book, you'll see that in today's fast-moving world, no software project can afford to go through development, then an integration phase of unpredictable length and complexity, and finally be shipped to the customer -- just to find out that the resulting application didn't quite fill their need. Instead, you'll discover that practicing continuous integration and continuous delivery reduces the risks by keeping changes small and automating otherwise painful processes. What You Will Learn Carry out various kinds of testing, including unit testing and continuous integration testing, of your Python code using Jenkins Build packages and manage repositories Incorporate Ansible and Go for

automated packaging and other deployments Manage more complex and robust deployments Who This Book Is For Python programmers and operating staff that work with Python applications. Winner of the 2011 Jolt Excellence Award! Getting software released to users is often a painful, risky, and time-consuming process. This groundbreaking new book sets out the principles and technical practices that enable rapid, incremental delivery of high quality, valuable new functionality to users. Through automation of the build, deployment, and testing process, and improved collaboration between developers, testers, and operations, delivery teams can get changes released in a matter of hours—sometimes even minutes—no matter what the size of a project or the complexity of its code base. Jez Humble and David Farley begin by presenting the foundations of a rapid, reliable, low-risk delivery process. Next, they introduce the “deployment pipeline,” an automated process for managing all changes, from check-in to release. Finally, they discuss the “ecosystem” needed to support continuous delivery, from infrastructure, data and configuration management to governance. The authors introduce state-of-the-art techniques, including automated infrastructure management and data migration, and the use of virtualization. For each, they review key issues, identify best practices, and demonstrate how to mitigate risks. Coverage includes

- Automating all facets of building, integrating, testing, and deploying software
- Implementing deployment pipelines at team and organizational levels
- Improving collaboration between developers, testers, and operations
- Developing features incrementally on large and distributed teams
- Implementing an effective configuration management strategy
- Automating acceptance testing, from analysis to implementation
- Testing capacity and other non-functional requirements
- Implementing continuous deployment and zero-downtime releases
- Managing infrastructure, data, components and dependencies
- Navigating risk management, compliance, and auditing

Whether you’re a developer, systems administrator, tester, or manager, this book will help your organization move from idea to release faster than ever—so you can deliver value to your business rapidly and reliably. For any software developer who has spent days in “integration hell,” cobbling together myriad software components, *Continuous Integration: Improving Software Quality and Reducing Risk* illustrates how to transform integration from a necessary evil into an everyday part of the development process. The key, as the authors show, is to integrate regularly and often using continuous integration (CI) practices and techniques. The authors first examine the concept of CI and its practices from the ground up and then move on to explore other effective processes performed by CI systems, such as database integration, testing, inspection, deployment, and feedback. Through more than forty CI-related practices using application examples in different languages, readers learn that CI leads to more rapid software development, produces deployable software at every step in the development lifecycle, and reduces the time between defect introduction and detection, saving time and lowering costs. With successful implementation of CI, developers reduce risks and repetitive manual processes, and teams receive better project visibility. The book covers

- How to make integration a “non-event” on your software development projects
- How to reduce the amount of repetitive processes you perform when building your software
- Practices and techniques for using CI effectively with your teams
- Reducing the risks of late defect discovery, low-quality software, lack of visibility, and lack of deployable software
- Assessments of different CI servers and related tools on the market

The book’s companion Web site, www.integratebutton.com, provides updates and code examples. 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 serves 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. This is the eBook version of the printed book. The past few years have seen the rise of agile or evolutionary methods in software development. These methods embrace change in requirements even late in the project. The ability to change software is because of certain practices that are followed within teams, such as Test Driven Development, Pair Programming, and Continuous Integration. Continuous Integration provides a way for software teams to integrate their work more than once a day, and promotes confidence in the software that is being developed by the team. It is thought that this practice is difficult to apply when continuously integrating the database with application code; hence, Evolutionary Database Development is considered a mismatch with agile methods. Pramod Sadalage shows that this is not necessarily true. Continuous Integration changed the way software is written. Why not extend and make the database part of the same Continuous Integration cycle so that you can see integrated results of your application as well as your database? Delivered in PDF format for quick and easy access, Recipes for Continuous Database Integration shows how the database can be brought under the preview of Continuous Integration, allowing all teams to integrate not only their application code, but also their database. This Short Cut presents a recipe for each task that needs to be done. Each recipe starts with a statement of a problem, followed by an explanation and solution. It provides concrete ways and examples to implement ideas in Refactoring Databases: Evolutionary Database Design by Scott W Ambler and Pramod Sadalage. Table of Contents What This Short Cut Covers Introduction Recipe 1 Continuously Integrating? Recipe 2 Extracting Your Database in Scripts Recipe 3 Using Version Control for Your Database Recipe 4 Automating Database or Schema Creation Recipe 5 Creating Objects in Your Database Recipe 6 Removing Database Objects Recipe 7 Removing Your Database Recipe 8 Using the Build Property Files Recipe 9 Re-Creating Your Application Database for Any Build Recipe 10 Making It Easy for New Developers to Join the Team Recipe 11 Integrating on Every Check-In Recipe 12 Naming Upgrade Scripts Recipe 13 Automating Database Change Script Creation Recipe 14 Implementing Database Version Checking Recipe 15 Sending Upgrades to Customers Sample Code Further Reading About the Author What's in the Companion Book Related Publication 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

Continuous Architecture provides a broad architectural perspective for continuous delivery, and describes a new architectural approach that supports and enables it. As the pace of innovation and software releases increases, IT departments are tasked to deliver value quickly and inexpensively to their business partners. With a focus on getting software into end-users hands faster, the ultimate goal of daily software updates is in sight to allow teams to ensure that they can release every change to the system simply and efficiently. This book presents an architectural approach to support modern application delivery methods and provide a broader architectural perspective, taking architectural concerns into account when deploying agile or continuous delivery approaches. The authors explain how to solve the challenges of implementing continuous delivery at the project and enterprise level, and the impact on IT processes including application testing, software deployment and software architecture. Covering the application of enterprise and software architecture concepts to the Agile and Continuous Delivery models Explains how to create an architecture that can evolve with applications Incorporates techniques including refactoring, architectural analysis, testing, and feedback-driven development Provides insight into incorporating modern software development when structuring teams and organizations 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. This book introduces the theory and practice of the 'double-flywheels model' of Continuous Delivery 2.0: Discovery Loop, which allows IT organisations to help businesses figure out the most efficacious ways to develop. iOS 11, Swift 4, and Xcode 9 provide many new APIs for iOS developers. With this cookbook, you'll learn more than 170 proven solutions for tackling the latest features in iOS 11 and watchOS 4, including new ways to use Swift and Xcode to make your day-to-day app development life easier. This collection of code-rich recipes also gets you up to speed on continuous delivery and continuous integration systems. Ideal for intermediate and advanced iOS developers looking to work with the newest version of iOS, these recipes include reusable code on GitHub, so you can put them to work in your project right away. Among the topics covered in this book: New features in Swift 4 and Xcode 9 Tools for continuous delivery and continuous integration Snapshot testing and test automation Creating document-based applications Updated Map view and Core Location features iOS 11's Security and Password Autofill Data storage with Apple's Core Data Creating lively user interfaces with UI Dynamics Building

iMessage applications and sticker packages Integrating Siri into your apps with Siri Kit Creating fascinating apps for Apple Watch Janet Gregory and Lisa Crispin pioneered the agile testing discipline with their previous work, *Agile Testing*. Now, in *More Agile Testing*, they reflect on all they've learned since. They address crucial emerging issues, share evolved agile practices, and cover key issues agile testers have asked to learn more about. Packed with new examples from real teams, this insightful guide offers detailed information about adapting agile testing for your environment; learning from experience and continually improving your test processes; scaling agile testing across teams; and overcoming the pitfalls of automated testing. You'll find brand-new coverage of agile testing for the enterprise, distributed teams, mobile/embedded systems, regulated environments, data warehouse/BI systems, and DevOps practices. You'll come away understanding

- How to clarify testing activities within the team
- Ways to collaborate with business experts to identify valuable features and deliver the right capabilities
- How to design automated tests for superior reliability and easier maintenance
- How agile team members can improve and expand their testing skills
- How to plan “just enough,” balancing small increments with larger feature sets and the entire system
- How to use testing to identify and mitigate risks associated with your current agile processes and to prevent defects
- How to address challenges within your product or organizational context
- How to perform exploratory testing using “personas” and “tours”
- Exploratory testing approaches that engage the whole team, using test charters with session- and thread-based techniques
- How to bring new agile testers up to speed quickly—without overwhelming them

Janet Gregory is founder of DragonFire Inc., an agile quality process consultancy and training firm. Her passion is helping teams build quality systems. For almost fifteen years, she has worked as a coach and tester, introducing agile practices into companies of all sizes and helping users and testers understand their agile roles. She is a frequent speaker at agile and testing software conferences, and is a major contributor to the agile testing community. Lisa Crispin, an experienced agile testing practitioner and coach, regularly leads conference workshops on agile testing and contributes frequently to agile software publications. She enjoys collaborating as part of an awesome agile team to produce quality software. Since 1982, she has worked in a variety of roles on software teams, in a wide range of industries. She joined her first agile team in 2000 and continually learns from other teams and practitioners.

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. 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 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. Build and use systems that safely automate software delivery from testing through release with this jargon-busting guide to Continuous Delivery pipelines. In Grokking Continuous Delivery you will learn how

to: Design effective CD pipelines for new and legacy projects Keep your software projects release-ready Maintain effective tests Scale CD across multiple applications Ensure pipelines give the right signals at the right time Use version control as the source of truth Safely automate deployments with metrics Describe CD in a way that makes sense to your colleagues Grokking Continuous Delivery teaches you the design and purpose of continuous delivery systems that you can use with any language or stack. You'll learn directly from your mentor Christie Wilson, Google engineer and co-creator of the Tekton CI/CD framework. Using crystal-clear, well-illustrated examples, Christie lays out the practical nuts and bolts of continuous delivery for developers and pipeline designers. In each chapter, you'll uncover the proper approaches to solve the real-world challenges of setting up a CD pipeline. With this book as your roadmap, you'll have a clear plan for bringing CD to your team without the need for costly trial-and-error experimentation. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Keep your codebase release-ready. A continuous delivery pipeline automates version control, testing, and deployment with minimal developer intervention. Master the tools and practices of continuous delivery, and you'll be able to add features and push updates quickly and consistently. About the book Grokking Continuous Delivery is a friendly guide to setting up and working with a continuous delivery pipeline. Each chapter takes on a different scenario you'll face when setting up a CD system, with real-world examples like automated scaling and testing legacy applications. Taking a tool-agnostic approach, author Christie Wilson guides you each step of the way with illustrations, crystal-clear explanations, and practical exercises to lock in what you're learning. What's inside Design effective CD pipelines for new and legacy projects Ensure your pipelines give the right signals at the right times Version control as the source of truth Safely automate deployments About the reader For software engineers who want to add CD to their development process. About the author Christie Wilson is a software engineer at Google, where she co-created Tekton, a cloud-native CI/CD platform built on Kubernetes. Table of Contents PART 1 Introducing continuous delivery 1 Welcome to Grokking Continuous Delivery 2 A basic pipeline PART 2 Keeping software in a deliverable state at all times 3 Version control is the only way to roll 4 Use linting effectively 5 Dealing with noisy tests 6 Speeding up slow test suites 7 Give the right signals at the right times PART 3 Making delivery easy 8 Easy delivery starts with version control 9 Building securely and reliably 10 Deploying confidently PART 4 CD design 11 Starter packs: From zero to CD 12 Scripts are code, too 13 Pipeline design Learn how to deploy and test Linux-based Docker containers with the help of real-world use cases Key Features Understand how to make a deployment workflow run smoothly with Docker containers Learn Docker and DevOps concepts such as continuous integration and continuous deployment (CI/CD) Gain insights into using various Docker tools and libraries Book Description Docker is the de facto standard for containerizing apps, and with an increasing number of software projects migrating to containers, it is crucial for engineers and DevOps teams to understand how to build, deploy, and secure Docker environments effectively. Docker for Developers will help you understand Docker containers from scratch while taking you through best practices and showing you how to address security concerns. Starting with an introduction to Docker, you'll learn how to use containers and VirtualBox for development. You'll explore how containers work and develop projects within them after you've explored different ways to deploy and run containers. The book will also show you how to use Docker containers in production in both single-host set-ups and in clusters and deploy them using Jenkins, Kubernetes, and Spinnaker. As you advance, you'll get to grips with monitoring, securing, and scaling Docker using tools such as Prometheus and Grafana. Later, you'll be able to deploy Docker containers to a variety of environments, including the cloud-native Amazon Elastic Kubernetes Service (Amazon EKS), before finally delving into Docker security concepts and best practices. By the end of the Docker book, you'll be able to not only work in a container-driven environment confidently but also use Docker for both new and existing projects. What you will learn Get up to speed with creating containers and understand how they work Package and deploy your containers to a variety of platforms Work with containers in the cloud and on the Kubernetes platform Deploy and then monitor the health and logs of running containers Explore best practices for working with containers from a security perspective Become familiar with scanning containers and using third-party security tools and libraries Who this book is for If you're a software engineer new to containerization or a DevOps engineer responsible for deploying Docker containers in the cloud and building DevOps pipelines for container-based projects, you'll find this book useful. This Docker containers book is also a handy reference guide for anyone working with a Docker-based DevOps ecosystem or interested in understanding the security implications and best practices for working in container-driven environments. Continuous delivery adds enormous

value to the business and the entire software delivery lifecycle, but adopting this practice means mastering new skills typically outside of a developer's comfort zone. In this practical book, Daniel Bryant and Abraham Marín-Pérez provide guidance to help experienced Java developers master skills such as architectural design, automated quality assurance, and application packaging and deployment on a variety of platforms. Not only will you learn how to create a comprehensive build pipeline for continually delivering effective software, but you'll also explore how Java application architecture and deployment platforms have affected the way we rapidly and safely deliver new software to production environments. Get advice for beginning or completing your migration to continuous delivery Design architecture to enable the continuous delivery of Java applications Build application artifacts including fat JARs, virtual machine images, and operating system container (Docker) images Use continuous integration tooling like Jenkins, PMD, and find-sec-bugs to automate code quality checks Create a comprehensive build pipeline and design software to separate the deploy and release processes Explore why functional and system quality attribute testing is vital from development to delivery Learn how to effectively build and test applications locally and observe your system while it runs in production How well does your organization respond to changing market conditions, customer needs, and emerging technologies when building software-based products? This practical guide presents Lean and Agile principles and patterns to help you move fast at scale—and demonstrates why and how to apply these paradigms throughout your organization, rather than with just one department or team. Through case studies, you'll learn how successful enterprises have rethought everything from governance and financial management to systems architecture and organizational culture in the pursuit of radically improved performance. Discover how Lean focuses on people and teamwork at every level, in contrast to traditional management practices Approach problem-solving experimentally by exploring solutions, testing assumptions, and getting feedback from real users Lead and manage large-scale programs in a way that empowers employees, increases the speed and quality of delivery, and lowers costs Learn how to implement ideas from the DevOps and Lean Startup movements even in complex, regulated environments The step-by-step guide to going live with new software releases faster - reducing risk and delivering more value sooner! *Fast, simple, repeatable techniques for deploying working code to production in hours or days, not months! *Crafting custom processes that get developers from idea to value faster than ever. *Best practices for everything from source code control to dependency management and in-production tracing. *Common obstacles to rapid release - and pragmatic solutions. In too many organizations, build, testing, and deployment processes can take six months or more. That's simply far too long for today's businesses. But it doesn't have to be that way. It's possible to deploy working code to production in hours or days after development work is complete - and Go Live presents comprehensive processes and techniques for doing so. Written by two of the world's most experienced software project leaders, this book demonstrates how to dramatically increase speed while reducing risk and improving code quality at the same time. The authors cover all facets of build, testing, and deployment, including: configuration management, source code control, release planning, auditing, compliance, integration, build automation, and more. They introduce a wide range of advanced techniques, including inproduction monitoring and tracing, dependency management, and the effective use of virtualization. For each area, they explain the issues, show how to mitigate the risks, and present best practices. Throughout, Go Live focuses on powerful opportunities for individual improvement, clearly and simply explaining skills and techniques so they can be used every day on real projects. With this book's help, any development organization can move from idea to release faster -- and deliver far more value, far more rapidly. Using Continuous Delivery, you can bring software into production more rapidly, with greater reliability. A Practical Guide to Continuous Delivery is a 100% practical guide to building Continuous Delivery pipelines that automate rollouts, improve reproducibility, and dramatically reduce risk. Eberhard Wolff introduces a proven Continuous Delivery technology stack, including Docker, Chef, Vagrant, Jenkins, Graphite, the ELK stack, JBehave, and Gatling. He guides you through applying these technologies throughout build, continuous integration, load testing, acceptance testing, and monitoring. Wolff's start-to-finish example projects offer the basis for your own experimentation, pilot programs, and full-fledged deployments. A Practical Guide to Continuous Delivery is for everyone who wants to introduce Continuous Delivery, with or without DevOps. For managers, it introduces core processes, requirements, benefits, and technical consequences. Developers, administrators, and architects will gain essential skills for implementing and managing pipelines, and for integrating Continuous Delivery smoothly into software architectures and IT organizations. Understand the problems that Continuous Delivery solves, and how it solves them

Establish an infrastructure for maximum software automation Leverage virtualization and Platform as a Service (PAAS) cloud solutions Implement build automation and continuous integration with Gradle, Maven, and Jenkins Perform static code reviews with SonarQube and repositories to store build artifacts Establish automated GUI and textual acceptance testing with behavior-driven design Ensure appropriate performance via capacity testing Check new features and problems with exploratory testing Minimize risk throughout automated production software rollouts Gather and analyze metrics and logs with Elasticsearch, Logstash, Kibana (ELK), and Graphite Manage the introduction of Continuous Delivery into your enterprise Architect software to facilitate Continuous Delivery of new capabilities Writing for students at all levels of experience, Farley illuminates durable principles at the heart of effective software development. He distills the discipline into two core exercises: first, learning and exploration, and second, managing complexity. For each, he defines principles that can help students improve everything from their mindset to the quality of their code, and describes approaches proven to promote success. Farley's ideas and techniques cohere into a unified, scientific, and foundational approach to solving practical software development problems within realistic economic constraints. This general, durable, and pervasive approach to software engineering can help students solve problems they haven't encountered yet, using today's technologies and tomorrow's. It offers students deeper insight into what they do every day, helping them create better software, faster, with more pleasure and personal fulfillment. Learn continuous deployment and automation with code-signing, continuous testing, building, deploying, and releasing of your app. Key Features A practical guide on automating your mobile development pipeline with Fastlane, Jenkins, and Slack. Build, test, run and deploy your mobile application release with this end to end guide. Implement Continuous Integration, delivery, and deployment practices to optimize your application development workflow for faster and efficient release builds. Book Description Competitive mobile apps depend strongly on the development team's ability to deliver successful releases, consistently and often. Although continuous integration took a more mainstream priority among the development industry, companies are starting to realize the importance of continuity beyond integration and testing. This book starts off with a brief introduction to fastlane—a robust command-line tool that enables iOS and Android developers to automate their releasing workflow. The book then explores and guides you through all of its features and utilities; it provides the reader a comprehensive understanding of the tool and how to implement them. Themes include setting up and managing your certificates and provisioning and push notification profiles; automating the creation of apps and managing the app metadata on iTunes Connect and the Apple Developer Portal; and building, distributing and publishing your apps to the App Store. You will also learn how to automate the generation of localized screenshots and mesh your continuous delivery workflow into a continuous integration workflow for a more robust setup. By the end of the book, you will gain substantial knowledge on delivering bug free, developer-independent, and stable application release cycle. What you will learn Harness the fastlane tools for the Continuous Deployment strategy Integrate Continuous Deployment with existing Continuous Integration. Automate upload of screenshots across all device screen-sizes Manage push notifications, provisioning profiles, and code-signing certificates Orchestrate automated build and deployments of new versions of your app Regulate your TestFlight users and on-board new testers Who this book is for This book is intended for mobile developers who are keen on incorporating Continuous integration and deployment practices in their workflow. Continuous delivery adds enormous value to the business and the entire software delivery lifecycle, but adopting this practice means mastering new skills typically outside of a developer's comfort zone. In this practical book, Daniel Bryant and Abraham Marín-Pérez provide guidance to help experienced Java developers master skills such as architectural design, automated quality assurance, and application packaging and deployment on a variety of platforms. Not only will you learn how to create a comprehensive build pipeline for continually delivering effective software, but you'll also explore how Java application architecture and deployment platforms have affected the way we rapidly and safely deliver new software to production environments. Get advice for beginning or completing your migration to continuous delivery Design architecture to enable the continuous delivery of Java applications Build application artifacts including fat JARs, virtual machine images, and operating system container (Docker) images Use continuous integration tooling like Jenkins, PMD, and find-sec-bugs to automate code quality checks Create a comprehensive build pipeline and design software to separate the deploy and release processes Explore why functional and system quality attribute testing is vital from development to delivery Learn how to effectively build and test applications locally and observe your system while it runs in production This book is both a practical and theoretical guide detailing how to implement continuous

delivery and DevOps to consistently ship quality software quickly. Whether you are a freelance software developer, a system administrator working within a corporate business, an IT project manager or a CTO in a startup you will have a common problem; regularly shipping quality software is painful. It needn't be. This book is for anyone who wants to understand how to ship quality software regularly without the pain. Harness the power of DevOps to boost your skill set and make your IT organization perform better About This Book Get to know the background of DevOps so you understand the collaboration between different aspects of an IT organization and a software developer Improve your organization's performance to ensure smooth production of software and services Deploy top-quality software and ensure software maintenance and release management with this practical guide Who This Book Is For This book is aimed at developers and system administrators who wish to take on larger responsibilities and understand how the infrastructure that builds today's enterprises works. This book is also great for operations personnel who would like to better support developers. You do not need to have any previous knowledge of DevOps. What You Will Learn Appreciate the merits of DevOps and continuous delivery and see how DevOps supports the agile process Understand how all the systems fit together to form a larger whole Set up and familiarize yourself with all the tools you need to be efficient with DevOps Design an application that is suitable for continuous deployment systems with DevOps in mind Store and manage your code effectively using different options such as Git, Gerrit, and Gitlab Configure a job to build a sample CRUD application Test the code using automated regression testing with Jenkins Selenium Deploy your code using tools such as Puppet, Ansible, Palletops, Chef, and Vagrant Monitor the health of your code with Nagios, Munin, and Graphite Explore the workings of Trac—a tool used for issue tracking In Detail DevOps is a practical field that focuses on delivering business value as efficiently as possible. DevOps encompasses all the flows from code through testing environments to production environments. It stresses the cooperation between different roles, and how they can work together more closely, as the roots of the word imply—Development and Operations. After a quick refresher to DevOps and continuous delivery, we quickly move on to looking at how DevOps affects architecture. You'll create a sample enterprise Java application that you'll continue to work with through the remaining chapters. Following this, we explore various code storage and build server options. You will then learn how to perform code testing with a few tools and deploy your test successfully. Next, you will learn how to monitor code for any anomalies and make sure it's running properly. Finally, you will discover how to handle logs and keep track of the issues that affect processes Style and approach This book is primarily a technical guide to DevOps with practical examples suitable for people who like to learn by implementing concrete working code. It starts out with background information and gradually delves deeper into technical subjects. Create a complete Continuous Delivery process using modern DevOps tools such as Docker, Kubernetes, Jenkins, Docker Hub, Ansible, GitHub and many more. Key Features Build reliable and secure applications using Docker containers. Create a highly available environment to scale a Docker servers using Kubernetes Implement advance continuous delivery process by parallelizing the pipeline tasks Book Description Continuous Delivery with Docker and Jenkins, Second Edition will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of an app development. It will start with setting up a Docker server and configuring Jenkins on it. It will then provide steps to build applications on Docker files and integrate them with Jenkins using continuous delivery processes such as continuous integration, automated acceptance testing, and configuration management. Moving on, you will learn how to ensure quick application deployment with Docker containers along with scaling Jenkins using Kubernetes. Next, you will get to know how to deploy applications using Docker images and testing them with Jenkins. Towards the end, the book will touch base with missing parts of the CD pipeline, which are the environments and infrastructure, application versioning, and nonfunctional testing. By the end of the book, you will be enhancing the DevOps workflow by integrating the functionalities of Docker and Jenkins. What you will learn Get to grips with docker fundamentals and how to dockerize an application for the CD process Learn how to use Jenkins on the Cloud environments Scale a pool of Docker servers using Kubernetes Create multi-container applications using Docker Compose Write acceptance tests using Cucumber and run them in the Docker ecosystem using Jenkins Publish a built Docker image to a Docker Registry and deploy cycles of Jenkins pipelines using community best practices Who this book is for The book targets DevOps engineers, system administrators, docker professionals or any stakeholders who would like to explore the power of working with Docker and Jenkins together. No prior knowledge of DevOps is required for this book. Understand the benefits of DevOps and continuous delivery and see how they support the agile software development

process Key Features Learn how DevOps can accelerate your entire software development life cycle Improve your organization's performance to ensure the smooth production of software and services Get hands-on experience in using efficient DevOps tools to better effect Book Description DevOps is a practical field that focuses on delivering business value as efficiently as possible. DevOps encompasses all code workflows from testing environments to production environments. It stresses cooperation between different roles, and how they can work together more closely, as the roots of the word imply—Development and Operations. Practical DevOps begins with a quick refresher on DevOps and continuous delivery and quickly moves on to show you how DevOps affects software architectures. You'll create a sample enterprise Java application that you'll continue to work with through the remaining chapters. Following this, you will explore various code storage and build server options. You will then learn how to test your code with a few tools and deploy your test successfully. In addition to this, you will also see how to monitor code for any anomalies and make sure that it runs as expected. Finally, you will discover how to handle logs and keep track of the issues that affect different processes. By the end of the book, you will be familiar with all the tools needed to deploy, integrate, and deliver efficiently with DevOps. What you will learn Understand how all deployment systems fit together to form a larger system Set up and familiarize yourself with all the tools you need to be efficient with DevOps Design an application suitable for continuous deployment systems with DevOps in mind Store and manage your code effectively using Git, Gerrit, Gitlab, and more Configure a job to build a sample CRUD application Test your code using automated regression testing with Jenkins Selenium Deploy your code using tools such as Puppet, Ansible, Palletops, Chef, and Vagrant Who this book is for If you're a developer or system administrator looking to take on larger responsibilities and understand how the infrastructure that builds today's enterprises works, this is the book for you. This book will also help you greatly if you're an operations worker who would like to better support developers. You do not need any previous knowledge of DevOps to understand the concepts in this book.

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