

## Continuous Integration Delivery And Deployment Reliable And Faster Software Releases With Automating Builds Tests And Deployment

A step-by-step guide to implementing Continuous Integration and Continuous Delivery (CI/CD) 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 CI/CD Pipeline for Java Web Application 4. Building CI/CD Pipeline for Android App 5. Building CI/CD Pipeline for iOS App 6. Building CI/CD Pipeline for Angular Application 7. Building CI/CD Pipeline NodeJS Application 8. Building CI/CD Pipeline for Hybrid Mobile Application 9. Building CI/CD Pipeline for Python Application 10. Building CI/CD Pipeline for DotNet Application 11. Best Practices

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

A step-by-step guide to understand Agile, Scrum, DevOps and Cloud Computing using Azure DevOps and Microsoft Azure Cloud DESCRIPTION Agile development and implementation of Scrum methodologies require quick delivery of applications. Manual activities to manage application lifecycle management are no longer sufficient. This book will cover the DevOps practices implementation that helps to achieve speed for faster time to market using transformation in culture using people, processes, and tools. This book discusses the definition of Cloud computing and the benefits of Cloud Service Models. You will understand how Agile, DevOps practices implementation and Cloud computing can be utilized effectively to transform the culture of an organization. The main objective of this book is to demonstrate continuous practices of the DevOps culture using Microsoft Azure DevOps and Microsoft Azure Cloud. You will learn how to track features, user stories, backlogs, dashboards, and burndown charts. You will also learn how to create and manage repositories. This book gives an overview of Microsoft Azure Cloud and Azure App Services and a brief description of virtual machines and App Services. It summarizes Build and Release definitions available in Microsoft Azure DevOps and explains how to configure Pipelines and create end-to-end automation pipelines. KEY FEATURES ? Learn how to do Continuous Planning in Azure DevOps ? Learn the basics of Continuous Code Inspection and importance of Code Quality ? Learn how continuous integration can make a difference in the application life cycle ? Learn how to create and configure Cloud resources using Platform as a Service Model ? Learn how to perform continuous integration using the YAML script and continuous delivery pipeline using a release pipeline ? Learn how to configure monitoring for Platform as a Service resources WHAT WILL YOU LEARN By the end of the book, you will get an overview of Agile, Scrum, DevOps and Continuous Practices such as Continuous Integration, Continuous Delivery, Cloud Computing, and Continuous Code Inspection. You will learn how all these practices can be utilized in real-life scenarios with the sample applications. This book will provide detailed insights into Microsoft Azure Cloud, especially Platform as a Service Model. A step-by-step implementation guide of continuous practices of DevOps will help beginners to get started with. WHO THIS BOOK IS FOR DevOps Evangelists, DevOps Engineers, Technical Specialists, Technical Architects, and Cloud Experts Basic knowledge of application development and deployment, Cloud computing, and DevOps practices Beginners Table of Contents 1. An overview of Agile 2. Need for DevOps 3. An overview of Cloud Computing 4. Azure Boards 5. Azure Repos 6. Microsoft Azure Cloud 7. Microsoft Azure Cloud: IaaS and PaaS 8. Azure Pipelines: Continuous Integration and Continuous Delivery 9. Azure Pipelines Implementation

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.

An advanced exploration of the skills and knowledge required for operating Kubernetes clusters, with a focus on metrics gathering and alerting, with the goal of making clusters and applications inside them autonomous through self-healing and self-adaptation.

**Key Features\*** The sixth book of DevOps expert Viktor Farcic's bestselling DevOps Toolkit series, with an overview of advanced core Kubernetes techniques, -oriented towards monitoring and alerting.\* Takes a deep dive into monitoring, alerting, logging, auto-scaling, and other subjects aimed at making clusters resilient, self-sufficient, and self-adaptive\* Discusses how to customise and create dashboards and alerts

**Book Description** Building on The DevOps 2.3 Toolkit: Kubernetes, and The DevOps 2.4 Toolkit: Continuous Deployment to Kubernetes, Viktor Farcic brings his latest exploration of the Docker technology as he records his journey to monitoring, logging, and autoscaling Kubernetes. The DevOps 2.5 Toolkit: Monitoring, Logging, and Auto-Scaling Kubernetes: Making Resilient, Self-Adaptive, And Autonomous Kubernetes Clusters is the latest book in Viktor Farcic's series that helps you build a full DevOps Toolkit. This book helps readers develop the necessary skillsets needed to be able to operate Kubernetes clusters, with a focus on metrics gathering and alerting with the goal of making clusters and applications inside them autonomous through self-healing and self-adaptation. Work with Viktor and dive into the creation of self-adaptive and self-healing systems within Kubernetes. What you will learn\* Autoscaling Deployments and Statefulsets based on resource usage\* Autoscaling nodes of a Kubernetes cluster\* Debugging issues discovered through metrics and alerts\* Extending HorizontalPodAutoscaler with custom metrics\* Visualizing metrics and alerts\* Collecting and querying logs

**Who this book is for** Readers with an advanced-level understanding of Kubernetes and hands-on experience.

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

**Key Features** Explains in detail cloud-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.

Learn DevOps skills with rising demand. Continuous integration and continuous delivery in the AWS cloud

**About This Video** Learn about continuous integration (CI), continuous delivery and continuous deployment (CD)

- Learn why CI and CD is important (especially in fast paced start up environment)
- Maintain and version control database schema in an automated fashion via Sqitch
- Build an automated CI and CD pipeline with AWS CodePipeline, Jenkins and AWS CodeDeploy
- Learn how to setup automatic build and deployment notifications within AWS CodeDeploy
- Deploy AWS EC2 virtual machine instances
- Deploy PostgreSQL database in AWS RDS

**In Detail** Today the technology sector is experiencing a boom throughout the world. There are hundreds of startups launching every day. In order to move quickly, 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 continuous delivery (CD) will yield tremendous benefits regarding speed and agility. The demand for these skills has been steadily rising over the last few years. AWS CodePipeline and AWS CodeDeploy is a highly scalable and configurable toolset from Amazon AWS, which enables us to build very sophisticated automated build and deployment pipelines. 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, continuous delivery and continuous deployment with these tools and frameworks can help us immensely in reducing the risk within our software development lifecycle. It catches 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. 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 likely to go up as the demand for these skills remains steady or increases. Professionals with AWS and Jenkins experience can demand as much as \$130K as their yearly compensation and these jobs pay more than the majority...

Continuous integration, continuous delivery, and continuous deployment are key software delivery processes in a DevOps environment. But what does each one do for your product development and release cycles? Brent Laster explains what these terms really boil down to, and how they work separately and together to help your team release software. This powerful set of disciplines, best practices, and technologies automates the process of integrating and delivering source code changes from inception through production. Although their implementation may vary, these processes are necessary to ensure that software is released frequently, reliably, and with high quality. You'll learn how: Continuous integration ensures that individual code changes are suitable for inclusion in the code base and merged in successfully Continuous delivery assembles your product, automatically testing the quality and functionality along the way, and produces deliverables that are proven to be deployable Continuous deployment simplifies releasing the product to customers, whether it's in the cloud, via download, or in some other

format, while also allowing for limited deployments or rolling deployments back

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.

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.

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 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

In traditional software development, where teams of developers worked on the same project in isolation, often led to problems integrating the resulting code. Due to this isolation, the project was not deliverable until the integration of all its parts, which was tedious and generated errors. The Continuous Integration (CI ) emerged as a practice to solve the problems of traditional methodology, with the aim of improving the quality of the code. This thesis sets out what is it and how Continuous Integration is achieved, the principles that makes it as effective as possible and the processes that follow as a consequence, to thus introduce the context of its objective: the creation of a system that automates the start-up and set-up of an environment to be able to apply the methodology of continuous integration.

Boost your organization's growth by incorporating networking in the DevOps culture About This Book Implement networking fundamentals to the DevOps culture with ease, improving your organization's stability Leverage various open source tools such as Puppet and Ansible in order to automate your network This step-by-step learning guide collaborating the functions of developers and network administrators Who This Book Is For The book is aimed for Network Engineers, Developers, IT operations and System admins who are planning to incorporate Networking in DevOps culture and have no knowledge about it. What You Will Learn Learn about public and private cloud networking using AWS and OpenStack as examples Explore strategies that can be used by engineers or managers to initiate the cultural changes required to enable the automation of network functions Learn about SDN and how an API-driven approach to networking can help solve common networking problems Get the hang of configuration management tools, such as Ansible and Jenkins, that can be used to orchestrate and configure network devices Setup continuous integration, delivery, and deployment pipelines for network functions Create test environments for network changes Understand how load balancing is becoming more software defined with the emergence of microservice applications In Detail Frustrated that your company's network changes are still a manual set of activities that slow developers down? It doesn't need to be that way any longer, as this book will help your company and network teams embrace DevOps and continuous delivery approaches, enabling them to automate all network functions. This book aims to show readers network automation processes they could implement in their organizations. It will teach you the fundamentals of DevOps in networking and how to improve DevOps processes and workflows by providing automation in your network. You will be exposed to various networking strategies that are stopping your organization from scaling new projects quickly. You will see how SDN and APIs are influencing DevOps transformations, which will in turn help you improve the scalability and efficiency of your organizations networks operations. You will also find out how to leverage various configuration management tools such as Ansible, to automate your network. The book will also look at containers and the impact they are having on networking as well as looking at how automation impacts network security in a software-defined network. Style and approach This will be a comprehensive, learning guide for teaching our readers how networking can be leveraged to improve the DevOps culture for any organization.

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

Continuous integration, continuous delivery, and continuous deployment are key software delivery processes in a DevOps environment. But what does each one do for your product development and release cycles? In this updated report, Brent Laster explains what these terms really boil down to and how they work separately and together to help your team release software. This powerful set of disciplines, best practices, and technologies automates the integration and delivery of source code changes from inception through production. Although their implementation may vary, continuous integration, continuous delivery, and continuous deployment are necessary to ensure that software is released frequently, reliably, and with high quality. You'll learn how: Continuous integration makes certain that individual code changes are suitable for inclusion in the code base and merged in successfully Continuous delivery assembles your product, automatically tests quality and functionality, and produces deliverables that are proven to be deployable Continuous deployment simplifies releasing the product to customers-whether it's in the cloud, via download, or in some other format-while also allowing for limited deployments or rolling deployments back This valuable resource for business professionals, software engineering managers, senior developers, and architects will also explore how containers and Kubernetes interact in this environment.

Scale and maintain outstanding performance in your AWS-based infrastructure using DevOps principles Key Features Implement continuous integration and continuous deployment pipelines on AWS Gain insight from an expert who has worked with Silicon Valley's most high-profile companies Implement DevOps principles to take full advantage of the AWS stack and services Book Description The DevOps movement has transformed the way modern tech companies work. Amazon Web Services (AWS), which has been at the forefront of the cloud computing revolution, has also been a key contributor to the DevOps movement, creating a huge range of managed services that help you implement DevOps principles. Effective DevOps with AWS, Second Edition will help you to understand how the most successful tech start-ups launch and scale their services on AWS, and will teach you how you can do the same. This book explains how to treat infrastructure as code, meaning you can bring resources online and offline as easily as you control your software. You will also build a continuous integration and continuous deployment pipeline to keep your app up to date. Once you have gotten to grips will all this, we'll move on to how to scale your applications to offer maximum performance to users even when traffic spikes, by using the latest technologies, such as containers. In addition to this, you'll get insights into monitoring and alerting, so you can make sure your users have the best experience when using your service. In the concluding chapters, we'll cover inbuilt AWS tools such as CodeDeploy and CloudFormation, which are used by many AWS administrators to perform DevOps. By the end of this book, you'll have learned how to ensure the security of your platform and data, using the latest and most prominent AWS tools. What you will learn Implement automatic AWS instance provisioning using CloudFormation Deploy your application on a provisioned infrastructure with Ansible Manage infrastructure using Terraform Build and deploy a CI/CD pipeline with Automated Testing on AWS Understand the container journey for a CI/CD pipeline using AWS ECS Monitor and secure your AWS environment Who this book is for Effective DevOps with AWS is for you if you are a developer, DevOps engineer, or you work in a team which wants to build and use AWS for software infrastructure. Basic computer science knowledge is required to get the most out of this book.

Are you new to DevOps? And excited to get started with DevOps Culture? Then this is the right handbook for you. This handbook contains the basics everyone should know about DevOps Concepts, Tools, CI/CD, DevOps in Cloud... Please Note: This book doesn't contain advanced concepts from the DevOps tools perspective rather it focuses on the basic concepts of DevOps

Build, package, and deploy software projects, developed with any language targeting any platform, using Azure pipelines. The book starts with an overview of CI/CD and the need for software delivery

automation. It further delves into the basic concepts of Azure pipelines followed by a hands-on guide to setting up agents on all platforms enabling software development in any language. Moving forward, you will learn to set up a pipeline using the classic Visual Editor using PowerShell scripts, a REST API, building edit history, retention, and much more. You'll work with artifact feeds to store deployment packages and consume them in a build. As part of the discussion you'll see the implementation and usage of YAML (Yet Another Markup Language) build pipelines. You will then create Azure release pipelines in DevOps and develop extensions for Azure pipelines. Finally, you will learn various strategies and patterns for developing pipelines and go through some sample lessons on building and deploying pipelines. After reading Hands-on Azure Pipelines, you will be able to combine CI and CD to constantly and consistently test and build your code and ship it to any target. What You Will Learn Work with Azure build-and-release pipelines Extend the capabilities and features of Azure pipelines Understand build, package, and deployment strategies, and versioning and patterns with Azure pipelines Create infrastructure and deployment that targets commonly used Azure platform services Build and deploy mobile applications Use quick-start Azure DevOps projects Who This Book Is For Software developers and test automation engineers who are involved in the software delivery process.

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 sat 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 toper form 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. 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.

A beginner's guide to implementing continuous integration and continuous delivery using JenkinsAbout This Book\*Speed up and increase software productivity and software delivery using Jenkins\*Automate your build, integration, release, and deployment processes with Jenkins-and learn how continuous integration (CI) can save you time and money\*Explore the power of continuous delivery using Jenkins through powerful real-life examplesWho This Book Is ForThis book is for anyone who wants to exploit the power of Jenkins. This book 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 JenkinsIn DetailIn past few years, Agile software development has seen tremendous growth across the world. There is huge demand for software delivery solutions that are fast yet flexible to frequent amendments. As a result, CI and continuous delivery methodologies are gaining popularity. Jenkins' core functionality and flexibility allows it to fit in a variety of environments and can help streamline the development process for all stakeholders.This book starts off by explaining the concepts of CI and its significance in the Agile world with a whole chapter dedicated to it. Next, you'll learn to configure and set up Jenkins. You'll gain a foothold in implementing CI and continuous delivery methods. We dive into the various features offered by Jenkins one by one exploiting them for CI.After that, you'll find out how to use the built-in pipeline feature of Jenkins. You'll see how to integrate Jenkins with code analysis tools and test automation tools in order to achieve continuous delivery. Next, you'll be introduced to continuous deployment and learn to achieve it using Jenkins.Through this book's wealth of best practices and real-world tips, you'll discover how easy it is to implement a CI service with Jenkins.

A step-by-step guide to implementing Continuous Integration and Continuous Delivery for Mobile, Hybrid, and Web applications KEY FEATURES - This book covers all these practices that can be utilized in real-life scenarios with sample applications written in Java, Android, iOS, Node.js, Angular, Ionic Cordova, Xamarin, Python, and PHP. - This book provides detailed insight

into Microsoft Azure Cloud, especially Platform as a Service Model - Azure App Services. - This book utilizes the Multi-Stage Pipeline Feature of Azure DevOps. Step by Step implementation of Continuous Practices of DevOps makes it easy to understand even for beginners of DevOps practices. DESCRIPTION This book will cover an approach that includes the understanding of DevOps, Assessment of AS-IS state, DevOps Practices Implementation and measurement of success. The main objective is to demonstrate Continuous Practices of DevOps Culture using Microsoft Azure DevOps and Microsoft Azure Cloud across different types of applications such as Mobile apps, Hybrid Mobile App, and Web applications. The main idea is to have a uniform approach across different types of applications such as Mobile apps, Hybrid Mobile App, and Web applications. It is important to have a uniform approach of DevOps Practices implementation in an application written in different programming languages such as Java, Android, iOS, Node.js, Angular, Ionic Cordova, Xamarin, Python, and PHP. WHAT WILL YOU LEARN - Learn to create a Multi-Stage (CI/CD) Pipeline for sample applications - Configure Unit Test Execution and Code Coverage Reports in Azure DevOps for sample applications - Create and configure Cloud resources using Platform as a Service Model - Azure App Services for Web Applications and deploy Web Applications to Azure App Services using Pipeline - Understand how to distribute Mobile App Packages (APK and IPA) to App Center WHO THIS BOOK IS FOR This book is suitable for DevOps Consultants, DevOps Evangelists, DevOps Engineers, Technical Specialists, Technical Architects, Cloud Experts, and Beginners. TABLE OF CONTENTS 1. Overview of DevOps Practices 2. DevOps Assessment – Measure the “AS-IS” Maturity 3. DevOps Practices Implementation for Android App – Azure DevOps Pipelines 4. DevOps Practices Implementation for iOS App – Azure DevOps Pipelines 5. DevOps Practices Implementation for Native Apps using App Center 6. DevOps Practices Implementation for Java App – Azure DevOps Pipelines 7. DevOps Practices Implementation for Node.js Apps – Azure DevOps Pipelines 8. DevOps Practices Implementation for Angular App – Azure DevOps Pipelines 9. DevOps Practices Implementation for Python and, PHP – Azure DevOps Pipelines 10. DevOps Practices Implementation for Hybrid Mobile App (Ionic and Xamarin) – Azure DevOps Pipeline 11. Azure DevOps Best Practices 12. Measure Benefits of DevOps Practices Implementations DevOps - 2 BOOK BUNDLE!! DevOps Handbook DevOps both as a culture and as a movement comes packed with different practices and methodologies which can bring operations and development teams together in to achieve high-quality software whenever needed making rapid deployments possible. Moreover, with DevOps practices, companies and organizations can create to further improve their products at a much faster pace than when using traditional approaches. Considering these massive benefits, it is no wonder why DevOps is gaining more and more popularity at a very rapid rate. Effective software management and development has never been as important as today especially when it comes to business competitiveness. Therefore, follow the footsteps of those high-performing companies, increase your business profitability, enjoy faster innovation and shorter development cycles, significantly reduced software deployment failures and exceed your business objectives and goals with DevOps. Here Is a Preview of What You'll Learn Here... Major software development mistakes to avoid and challenges What is software development life cycle and how it works What is DevOps, DevOps definitions and history of DevOps Agile software development, Agile practices and benefits DevOps practices, methodologies, tools and values How DevOps works and how it is implemented within companies and organizations The importance of automation, continuous integration, continuous delivery and continuous testing And much, much more... DevOps Adoption DevOps describes a set of processes, principles as well as a culture which brings software development and operations teams together. Moreover, adopting DevOps principles and strategies allows companies and organizations of any size and maturity levels to create and improve their products at a rapid pace which usually takes more time when using the traditional software development approaches. As soon as you embrace DevOps principles, you get to create shorter development cycles with faster innovation, you can reduce software deployments rates, time to recover and rollbacks, you have better communication and collaboration as well as significantly increased efficiency of your teams and lastly you get to enjoy substantially reduced IT headcount and costs. The industry is implementing DevOps practices as everyone is eager to take advantage of these benefits. You also can fully transform your digital business with DevOps principles and bring more value to everything you and your team do. Here Is a Preview of What You'll Learn Here... What is DevOps? DevOps principles compared to traditional IT concepts How DevOps is overcoming traditional Dev and Ops Why DevOps is important and its key benefits Main DevOps goals, DevOps culture and security integration How to properly build a DevOps culture Why you should invest in automation What are different DevOps success factors Advantages of speed and scale within DevOps environments What are common DevOps practices How to implement DevOps models And much, much more... Get this book bundle NOW and SAVE money!

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.

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.

Learn everything you need to set up a full-featured, automated pipeline for Xamarin development and deployment. Automate everything from the build step through to deployment and delivery to your customer. If you thought this level of automation could be achieved only by large companies with generous funding, think again! You as a single developer, or working in a small team or company, can automate your processes to punch heavier than your weight. What's more, you can achieve this level of automation completely for free! This hands-on guide takes you step-by-step from setting up your first automated build all the way to integrated unit testing, and finally through to delivering a high-quality app to your testers and end users. The automation presented in this book saves a lot of frustration and recurring work, providing you more time to focus on building the robust and compelling apps that delight your customers and keep you steps ahead of the competition. Not only does this book teach how to get a grip on consistent quality, but it covers the use of HockeyApp to track events and usage, and to report errors and anomalies back to home base for developers to investigate. Many times it's possible to detect and fix errors before a user even notices they are there. This book: Teaches the necessity of an automated development pipeline Helps you set up an automated pipeline for Xamarin development Integrates testing (on physical devices!) to ensure high-quality apps What You Will Learn Why you want an automated development pipeline Obtain and configure the automated tooling Continuously integrate your apps Run automated unit tests Push updates to your customers Monitor and detect errors without user intervention Who This Book Is For App developers looking for ways to ensure consistent quality of work and wanting to know how their apps are doing in actual use by customers

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

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

"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.

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.

DevOps Handbook DevOps both as a culture and as a movement comes packed with different practices and methodologies which can bring operations and development teams together in to achieve high-quality software whenever needed making rapid deployments possible. Moreover, with DevOps practices, companies and organizations can create to further improve their products at a much faster pace than when using traditional approaches. Considering these massive benefits, it is no wonder why DevOps is gaining more and more popularity at a very rapid rate. Effective software management and development has never been as important as today especially when it comes to business competitiveness. Therefore, follow the footsteps of those high-performing companies, increase your business profitability, enjoy faster innovation and shorter development cycles, significantly reduced software deployment failures and exceed your business objectives and goals with DevOps. Here Is a Preview of What You'll Learn Here... Major software development mistakes to avoid and challenges What is software development life cycle and how it works What is DevOps, DevOps definitions and history of DevOps Agile software development, Agile practices and benefits DevOps practices, methodologies, tools and values How DevOps works and how it is implemented within companies and organizations The importance of automation, continuous integration, continuous delivery and continuous testing And much, much more... Get this book NOW, increase your business profitability and exceed your business goals and objectives with DevOps practices!

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.

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

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

Accelerate and Automate Build, Deploy, and Management of applications to achieve High Availability. About This Book This guide highlights tools that offer development and deployment environments for application services Secure and continuously monitor your web application in order to make it highly available Use Visual Studio Team Services for Continuous Integration and Continuous Development to expedite your application life cycle management process Use Microsoft Azure App Services (Azure Web Apps / Azure Websites), PaaS offering from Microsoft to deploy web application Who This Book Is For This book is for DevOps engineers, system administrators, and developers (.net) who want to implement DevOps for their organization. You do not need to have any knowledge of VSTS or Azure App Services (Azure Web Apps / Azure Websites). What You Will Learn Explore the features of PaaS and aPaaS in DevOps Use Visual Studio Team Services (VSTS) to manage versions of code and integrating VSTS with Eclipse IDE Understand and configure Continuous Integration in VSTS Review Unit Test Execution for Automated Testing Create different environments that can be used to continuous deploy a web application Configure Roll-based Access to enable secure access for Azure Web Apps Create and configure the App Service Environment to enhance security Understand the execution of the end-to-end automation process Conduct Performance Testing using JMeter Discover the different monitoring options available in Microsoft Azure Portal In Detail This book will teach you all about the Visual Studio Team Services and Microsoft Azure PaaS offerings that support Continuous Integration, Continuous Delivery, Continuous Deployment, and execution in the cloud with high availability, disaster recovery, and security. You will first be given a tour of all the concepts and tools that Microsoft Azure has to offer and how these can be used in situations to cultivate the DevOps culture. You'll be taught how to use and manage Visual Studio Team Services (VSTS) and about the structure of the sample application used throughout the book. You will become familiar with the nitty gritty of Continuous Integration and Continuous Development with VSTS and Microsoft Azure Apps. You will not only learn how to create App service environments, but also how to compare Azure Web Apps and App Service Environments to deploy web applications in a more secure environment. Once you have completed Continuous Integration and created the Platform for application deployment, you will learn more about the final stepping stone in achieving end-to-end automation using approval-based Continuous Delivery and Deployment. You will then learn about Continuous Monitoring, using the monitoring and notification options provided by Microsoft Azure and Visual Studio Team Services. Style and Approach This book is an easy-to-follow guide filled with examples and real-world applications for gaining an in-depth understanding of Microsoft Azure and Visual Studio. This book will help you leverage Microsoft Azure and Visual Studio using real-world examples.

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