

AWS Ramp-Up Guide: Developer

For Developers, Engineers, and DevOps Engineers



Updated December 2020

This Developer Ramp-Up Guide provides a prescriptive path for you to become proficient at developing, deploying, and modernizing applications on AWS. Each section includes recommended learning for that topic. While the guide identifies a lot of resources, we recommend prioritizing the items that are most relevant and interesting to you. To enroll in training and certification exams, and track your progress, visit [aws.training](#) and set up a free account.

Please provide your feedback [here](#).

Learn the fundamentals of the AWS Cloud

LEARNING RESOURCE	DURATION	TYPE
What is Cloud Computing?	10 minutes	Webpage »
Overview of AWS	2 hours	Whitepaper »
Cloud Computing with AWS	10 minutes	Webpage »
AWS Global Infrastructure tool	15 minutes	Webpage »
AWS Glossary	30 minutes	Webpage »
<i>Job Roles in the Cloud</i>	30 minutes	Digital Training »
<i>AWS Cloud Practitioner Essentials</i>	6 hours	Digital Training » Classroom Training »

Step 1: Dive deeper into AWS Cloud fundamentals, including AWS pricing and cost management

LEARNING RESOURCE	DURATION	TYPE
AWS Pricing*	15 minutes	Webpage »
How AWS Pricing Works	45 minutes	Whitepaper »
AWS Well-Architected	15 minutes	Webpage »
AWS Well-Architected Framework	2 hours	Whitepaper »
<i>Introduction to AWS Billing and Cost Management</i>	5 minutes	Digital Training »

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Step 1 continued: Dive deeper into AWS Cloud fundamentals, including AWS pricing and cost management

LEARNING RESOURCE	DURATION	TYPE
<i>AWS Shared Responsibility Model</i>	5 minutes	Digital Training »
Shared Responsibility Model	10 minutes	Webpage »
AWS Security Best Practices	2 hours	Webpage »
AWS Security Best Practices	30 minutes	Blog Post »
<i>AWS Technical Essentials</i>	1 day	Digital Training »

Step 2: Learn cloud developer fundamentals

LEARNING RESOURCE	DURATION	TYPE
Tools to Build on AWS	30 minutes	Webpage »
<i>Introduction to AWS Elastic Beanstalk</i>	10 minutes	Digital Training »
<i>Getting Started with .NET on AWS*</i>	90 minutes	Digital Training »
Learn how to migrate your ASP.NET app to AWS in minutes!	30 minutes	Tutorial »
Learn how to develop applications in Microsoft Visual Studio leveraging AWS services*	4 hours	Hands-On Lab »
Learn the basics of Python on AWS	90 minutes	Workshop »
<i>Developing on AWS</i>	3 days	Classroom Training »
Practicing Continuous Integration and Continuous Delivery on AWS	1 hour	Whitepaper »
<i>AWS Developer: Building on AWS</i>	18 hours	edX Digital Training »

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Step 3: Take the AWS Certified Cloud Practitioner certification exam

LEARNING RESOURCE	DURATION	TYPE
AWS Certified Cloud Practitioner certification exam	1.5 hours	Exam »

Step 4: Learn all about containers

LEARNING RESOURCE	DURATION	TYPE
Getting started with Docker on AWS	45 minutes	Video »
Running Containerized Microservices on AWS	1 hour	Whitepaper »
AWS App2Container - A New Containerizing Tool for Java and .NET Applications	30 minutes	Blog Post »
Building Containerized Applications on AWS (AWS on Coursera)	10 hours	Digital Training »
<i>Deep Dive on AWS Fargate: Building Serverless Containers at Scale</i>	40 minutes	Digital Training »
<i>Deep Dive on Container Security</i>	30 minutes	Digital Training »
Deep Dive Into Container Networking - AWS Online Tech Talks	48 minutes	Video »

Step 4.1: Learn about Elastic Container Service (Amazon ECS)

LEARNING RESOURCE	DURATION	TYPE
<i>Amazon Elastic Container Service (ECS) Primer</i>	30 minutes	Training »
ECS Workshop	2 hours	Workshop »
Best practices for CI/CD using AWS Fargate and Amazon ECS	60 minutes	Video »
Docker on Amazon ECS Fargate Using CloudFormation	36 minutes	Video »
Building CI/CD Pipelines with Jenkins on Amazon ECS	60 minutes	Workshop »

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Step 4.1 continued: Learn about Elastic Container Service (Amazon ECS)

LEARNING RESOURCE	DURATION	TYPE
Building and Deploying Containers Using Amazon Elastic Container Service	1.5 hours	Hands-On Lab »
AWS Fargate under the hood*	40 minutes	Video »

Step 4.2: Learn about Elastic Kubernetes Service (Amazon EKS)

LEARNING RESOURCE	DURATION	TYPE
<i>Amazon Elastic Kubernetes (EKS) Primer</i>	1 hour	Digital Training »
<i>Running Containers on Amazon Elastic Kubernetes Service (Amazon EKS)</i>	3 days	Classroom Training »
EKS Workshop	2 hours	Workshop »
De-mystifying cluster networking for Amazon EKS Worker nodes	30 minutes	Blog Post »

Step 5: Learn all about serverless fundamentals

LEARNING RESOURCE	DURATION	TYPE
<i>Introduction to Serverless Development*</i>	25 minutes	Digital Training »
<i>Getting into a Serverless Mindset</i>	30 minutes	Digital Training »
<i>AWS Lambda Foundations</i>	1 hour	Digital Training »
<i>Amazon API Gateway for Serverless Applications</i>	75 minutes	Digital Training »
Amazon DynamoDB for Serverless Architectures	2 hours	Digital Training »
Lambda Getting Started	20 minutes	Tutorial »

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Step 5.1: Learn more about serverless, including best practices

LEARNING RESOURCE	DURATION	TYPE
Getting Started with AWS Lambda and Serverless Computing - AWS Online Tech Talks*	1 hour	Video »
Implementing Microservices on AWS	1 hours	Whitepaper »
Serverless architectural patterns and best practices	1 hour	Video »
Serverless Architectures with AWS Lambda	1 hour	Whitepaper »
Optimizing Enterprise Economics with Serverless Architectures	30 minutes	Whitepaper »
Serverless Design with AWS Lambda	4 hours	Hands-On Lab »
AWS Serverless Wild Rydes Workshops: Web Application, Data Processing, DevOps, Image Processing, and Multi Region on GitHub	1 hour	Workshop »
<i>Architecting Serverless Solutions</i>	3 hours	Digital Training »
Innovator Island serverless workshop	2 hours	Workshop »
Innovator Island serverless workshop walkthrough	5 hours	Video »
<i>Build and Deploy APIs with a Serverless CI/CD</i>	45 minutes	Digital Training »
CI/CD for serverless applications	1 hour	Workshop »
Build a Modern Web Application in your preferred language	2 hours	Workshop »
Modernization Workshops with 3 rd Party Integration	2 hours	Workshop »
Serverless Application Lens	2 hours	Whitepaper »
Building microservices with AWS Lambda	1 hour	Video »
AWS Serverless Multi-Tier Architectures	30 minutes	Whitepaper »
Security Overview of AWS Lambda	1 hour	Whitepaper »
Serverless Streaming Architectures and Best Practices	1 hour	Whitepaper »
Best practices for organizing larger serverless applications	15 minutes	Blog Post »

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Step 5.1 continued: Learn more about serverless, including best practices

LEARNING RESOURCE	DURATION	TYPE
Create a near real-time multiplayer game built on AWS	2 hours	Workshop »
Moving to event-driven architectures	1 hour	Video »
Scalable serverless event-driven applications using Amazon SQS & Lambda	50 minutes	Video »

Step 6: Learn how to build and manage Infrastructure as Code

LEARNING RESOURCE	DURATION	TYPE
Infrastructure as Code	1 hour	Whitepaper »
<i>Introduction to AWS CloudFormation</i>	10 minutes	Digital Training »
Introduction to AWS CloudFormation	45 minutes	Hands-On Lab »
Creating an Amazon Virtual Private Cloud (VPC) with AWS CloudFormation	1 hour	Hands-On Lab »
Launching and Managing a Web Application with AWS CloudFormation*	2 hours	Hands-On Lab »
Introduction to AWS CloudFormation Designer	40 minutes	Hands-On Lab »
AWS Cloud Development Kit (CDK)*	4 hours	Workshop »
Working with the AWS Cloud Development Kit and AWS Construct Library	30 minutes	Blog Post »
Simplifying Application Building with AWS Solutions Constructs and the AWS CDK*	30 minutes	Video »

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Step 7: Learn how mobile and front-end web developers can quickly and easily build secure and scalable full stack applications

LEARNING RESOURCE	DURATION	TYPE
Build web and mobile apps with AWS Amplify	30 minutes	Tutorial »
Build a React Application using AWS Amplify	50 minutes	Tutorial »
Build a Full-Stack iOS App using AWS Amplify*	45 minutes	Tutorial »
Guides to build Front-end and full stack applications*	90 minutes	Guide »
Mobile applications how to blog directory*	30 minutes	Blog Posts »

Step 8: Learn about AWS Developer Tools

LEARNING RESOURCE	DURATION	TYPE
<i>AWS Development Tools Services Overview</i>	5 minutes	Digital Training »
<i>Introduction to AWS CodeCommit</i>	15 minutes	Digital Training »
Working with AWS CodeCommit	40 minutes	Hands-On Lab »
Working with AWS CodeCommit on Windows	40 minutes	Hands-On Lab »
<i>Introduction to AWS CodeBuild</i>	10 minutes	Digital Training »
Introduction to CodeDeploy	80 minutes	Hands-On Lab »
<i>Introduction to AWS CodePipeline</i>	10 minutes	Digital Training »
<i>Introduction to AWS CodeStar</i>	10 minutes	Digital Training »
<i>Introduction to AWS X-Ray</i>	10 minutes	Digital Training »
<i>DevOps Engineering on AWS</i>	3 days	Classroom Training »
AWS Developer Tools and Services YouTube Playlist	1 hour	Videos »

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Step 9: Prepare for and take the AWS Certified Developer - Associate certification exam

LEARNING RESOURCE	DURATION	TYPE
<i>Exam Readiness: AWS Certified Developer – Associate</i>	2 hours	Classroom Training » Digital Training »
AWS Certified Developer – Associate certification exam	2 hours	Exam »

Step 10: Learn about DevOps the Amazon Way

LEARNING RESOURCE	DURATION	TYPE
2019 DevOps at Amazon Fireside Chat	42 minutes	Video »
Learn how Amazon goes faster with Continuous Delivery	45 minutes	Webpage »
Learn about Amazon CI/CD Practices for Software Development Teams	50 minutes	Video »
Moving to DevOps the Amazon Way	1 hour	Video »
Using a Cloud Center of Excellence (CCOE) to Transform the Entire Enterprise	20 minutes	Blog Post »
Driving change and building a high-performance DevOps culture	1 hour	Video »

Step 11: Learn to create and manage CI/CD Pipelines

LEARNING RESOURCE	DURATION	TYPE
Set Up a CI/CD Pipeline on AWS	1 hour	Tutorial »
Moving to DevOps the Amazon Way	1 hour	Video »
CI/CD for serverless applications	1 hour	Workshop »
CI/CD with AWS Fargate	60 minutes	Workshop »

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Step 11 continued: Learn to create and manage CI/CD Pipelines

LEARNING RESOURCE	DURATION	TYPE
<i>AWS Developer: Deploying on AWS</i>	18 hours	edX Digital Training »
Blue/green and Canary deployments for Amazon EKS and Amazon ECS*	90 minutes	Workshop »
Leadership Session: Developer Tools on AWS	50 minutes	Video »
CI/CD Pipeline for AWS CloudFormation templates on AWS	30 minutes	Tutorial »

Step 12: Learn to modernize your applications

LEARNING RESOURCE	DURATION	TYPE
<i>AWS Developer: Optimizing on AWS</i>	18 hours	edX Digital Training »
<i>Advanced Developing on AWS</i>	3 days	Classroom Training »
Jenkins on AWS	1 hour	Whitepaper »
Learn about Git Webhooks	15 minutes	Webpage »
Get hands-on with Git Webhooks with AWS services Quick Start	45 minutes	Workshop »
Accelerating Software Delivery with DevOps	1 hour	Whitepaper »
Advanced instrumenting distributed systems for operational visibility	60 minutes	Webpage »
<i>Accelerating Messaging Modernization with Amazon MQ*</i>	30 minutes	Digital Training »
<i>Building Modern Java Applications on AWS*</i>	18 hours	Coursera Digital Training » edX Digital Training »
<i>Building Modern Node.js Applications on AWS*</i>	18 hours	Coursera Digital Training » edX Digital Training »

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Step 12 continued: Learn to modernize your applications

LEARNING RESOURCE	DURATION	TYPE
<i>Building Modern Python Applications on AWS*</i>	18 hours	Coursera Digital Training » edX Digital Training »
<i>Developing Machine Learning Applications</i>	2.5 hours	Digital Training »
Increase business value through modernization	1 hour	Video »
<i>Building Modern Applications at AWS</i>	25 minutes	Video »
<i>Modern Application Development on AWS</i>	1 hour	Whitepaper »

Step 13: Prepare for and take the AWS Certified DevOps Engineer - Professional certification exam

LEARNING RESOURCE	DURATION	TYPE
<i>Exam Readiness: AWS Certified DevOps Engineer - Professional</i>	7 hours	Classroom Training » Digital Training »
<i>AWS Certified DevOps Engineer - Professional</i>	3 hours	Exam »

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Explore additional resources

LEARNING RESOURCE	DESCRIPTION	
Learning Library	Continue to learn by exploring our extensive portfolio of free digital training and classroom training. Filter according to your preferences, or find a specific course using the "Search" box.	Explore »
AWS Whitepapers & Guides	Explore technical whitepapers, technical guides, reference material, and reference architecture diagrams, all authored by AWS and the AWS community.	Explore »
AWS User Group	Join and connect with AWS users all over the world to share ideas and learn.	Explore »
AWS Events and Webinars	Connect with, collaborate with, and learn from AWS experts.	Explore »
AWS Podcast	Listen and learn about AWS.	Explore »
AWS Blog	Read about the latest launches from AWS Technical Evangelist Jeff Barr and others.	Explore »
AWS Documentation	Search for AWS service guides, API references, tutorials, projects, SDKs, and toolkits.	Explore »
AWS Knowledge Center	Review AWS Support's responses to AWS customers' most frequently asked questions.	Explore »
AWS FAQs	Find answers to common Product and Technical frequently asked questions.	Explore »
AWS Hands-On Tutorials	Get started with 10-minute, step-by-step tutorials to launch your first application.	Explore »
AWS Solutions Library	Use vetted, technical reference implementations designed to help you solve common problems and build faster.	Explore »
AWS YouTube Channel	Explore a wide variety of AWS topics by watching videos created by AWS experts across the world.	Explore »
AWS Architecture Center	Explore reference architecture diagrams, vetted architecture solutions, Well-Architected best practices, patterns, icons, and more.	Explore »
Amazon's Builders' Library	Learn how Amazon builds and operates software.	Explore »
AWS Twitch Channel	Learn how millions of customers are currently leveraging AWS Cloud products and solutions to build sophisticated applications with increased flexibility, scalability, and reliability.	Explore »
AWS Twitch for Developers	Join the developer education and community with AWS Live Video.	Explore »
AWS Security Documentation	Configure AWS services to meet your security and compliance objectives.	Explore »

For a training plan customized for your requirements,
contact your AWS Account Manager or contact us [here](#)

We would love to hear from you.
Provide your feedback on this AWS Ramp-Up Guide [here](#)