

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 »
Building Modern Applications at AWS	25 minutes	Video »
Modern Application Development on AWS	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 »
AWS Certified DevOps Engineer - Professional	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](#)