

Professional Skills
Agile Fundamentals
Jira
Git
Databases Introduction
Java Beginner
Maven
Testing (Foundation)
Java Intermediate
HTML
CSS
Javascript
Spring Boot
Selenium
Sonarqube
Advanced Testing (Theory)
Cucumber
MongoDB
Express
NodeJS
React
Express-Testing
Networking
Security
Cloud Fundamentals
AWS Foundations
<div><div></div> AWS Introductions</div>
<div><div></div> AWS Sign up</div>
<div><div></div> AWS Billing Alert</div>
<div><div></div> AWS EC2</div>

AWS Introductions

Contents

- [Overview](#)
- [Category](#)
 - [AWS Core Infrastructure Services](#)
 - [AWS Developer Services](#)
- [Regions and Availability Zones](#)
 - [Regions](#)
 - [Availability Zones](#)
- [Tutorial](#)
- [Exercises](#)

Overview

Amazon **Web Services** offers a broad set of global cloud-based products including compute, storage, databases, analytics, networking, mobile, developer tools, management tools, IoT, security, and enterprise applications: on-demand, available in seconds, with pay-as-you-go pricing. From data warehousing to deployment tools, directories to content delivery, over 140 AWS services are available. New services can be provisioned quickly, without the upfront capital expense. This allows enterprises, start-ups, small and medium-sized businesses, and customers in the public sector to access the building blocks they need to respond quickly to changing business requirements.

In 2006, Amazon Web Services (AWS) began offering IT infrastructure services to businesses as web services—now commonly known as cloud computing. One of the key benefits of cloud computing is the opportunity to replace upfront capital infrastructure expenses with low variable costs that scale with your business. With the cloud, businesses no longer need to plan for and procure servers and other IT infrastructure weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster.

Today, AWS provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers hundreds of thousands of businesses in 190 countries around the world.

AWS have a list of categories which categorise all the AWS services.

Category

AWS Core Infrastructure Services

- Compute: This allows you to deploy Virtual Machines, and includes all additional services that are related to Virtual Machines, for example a load balancer distributes traffic between servers, in this case, Virtual Machines, hence, Load balancer falls under the Compute section.
- Networking: This allows you to create a Virtual Private Cloud, VPC. This allows you to manage your own network, configuring your own rules.
- Storage: This allows you to store data as objects. This can be a better solution than storing data on a Virtual Machine as theres more support for durability and long term storage and archiving.
- Database: This service offers the traditional databases you can utilise in your infrastructure. Databases such as Relational Databases, ie, MySQL, PostgreSQL, and Non-Relational Databases, ie, DynamoDB, a custom DB

<div><div></div><div>Key Pairs</div></div> <div><div></div><div>S3 Introduction</div></div> <div><div></div><div>S3 Storage Options</div></div> <div><div></div><div>AWS S3 bucket creation</div></div> <div><div></div><div>S3 Bucket Policies</div></div> <div><div></div><div>S3 Lifecycle Policies</div></div> <div><div></div><div>S3 File Upload</div></div> <div><div></div><div>S3 AWS-CLI Commands</div></div> <div><div></div><div>S3 Glacier</div></div> <div><div></div><div>Elastic Beanstalk Introduction</div></div> <div><div></div><div>AWS IAM Intro</div></div> <div><div></div><div>AWS IAM User Overview</div></div> <div><div></div><div>AWS IAM Users</div></div> <div><div></div><div>AWS IAM Policies</div></div> <div><div></div><div>AWS Programmatic Access</div></div> <div><div></div><div>AWS IAM Role CLI</div></div> <div><div></div><div>AWS RDS</div></div> <div><div></div><div>AWS Auto-Scaling Group CLI</div></div> <div><div></div><div>Elastic Load Balancer</div></div>
<div>AWS Intermediate</div>
<div>Linux</div>
<div>DevOps</div>
<div>Jenkins Introduction</div>
<div>Jenkins Pipeline</div>
<div>Markdown</div>
<div>IDE Cheatsheet</div>

developed by Amazon.

AWS Developer Services

- Application Services: This service have many sub services, and it used to allow your application to make direct connection to services under this category. This is to help applications functions, for example, you can send out emails from AWS SES service by having this service being invoked by your application.

There are many more service category and services which you can find [here](#)

Regions and Availability Zones

Regions

Regions are data-centers located in specific geographic location across the world. These are a list of some available regions:

These regions defined have structure to them to organise this data. The structure is as follows:

REGION NAME: LOCATION: REGION IDENTIFIER

As of writing this document, these are the list of some of the regions:

- US East: Northern Virginia: us-east-1
- US West: Northern California: us-west-1
- US West: Oregon: us-west-2
- EU: Ireland: eu-west-1
- EU: London: eu-west-2

There are many more regions available and can be found [here](#)

By defining the region you want to work in within AWS console, every region specific action taken will related to the region you defined, for example, you changed your region to be in Ireland, therefore when creating a Virtual Machine in this region means you wont be able to see your Virtual Machine on the console if you change region.

Availability Zones

Closely related to Regions, and be thought of as Regions containing multiple Availability Zones. This just means regions can be broken down even more. Where each region had a data center and now the data center is broken down further to represent each Availability Zone. This is specific for some services such as creating Virtual machines, that require you to define a specific Availability zone as well as a region.

Tutorial

No tutorial for this section

Exercises

No exercises for this section