AWS Cloud Practitioner Certification Bootcamp

Week - 1

Session 1 - Introduction to Cloud & AWS

15th January, Saturday
7:30 PM to 9:00 PM BST

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Speakers

Sanchit Jain

Lead Architect - AWS at Quantiphi

AWS APN Ambassador

Agenda

Introduction to AWS Certification

Introduction to AWS Certified Cloud Practitioner

Introduction to Cloud Computing and AWS

Introduction to AWS Certification

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Why should you get AWS Certified?

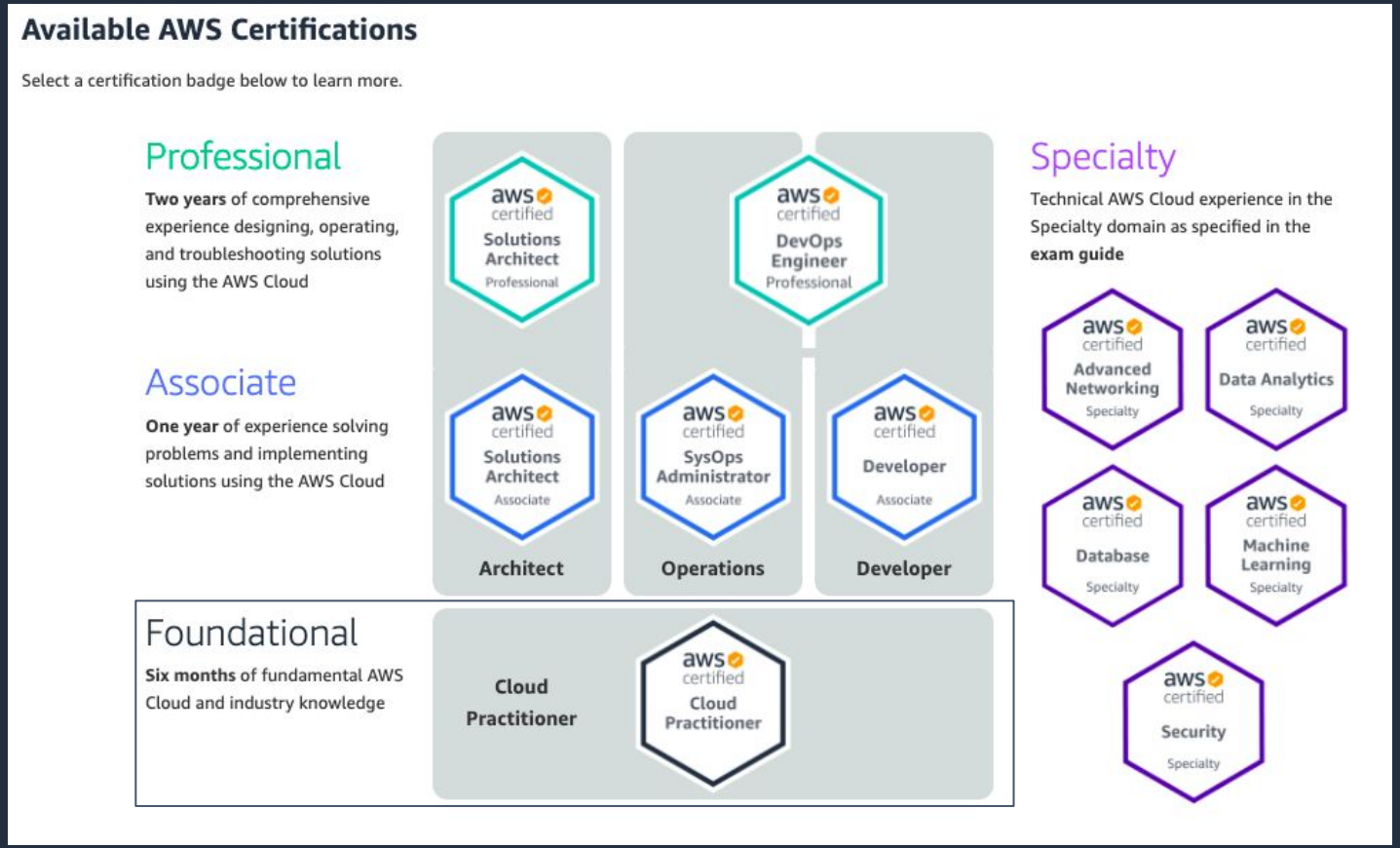
80% people received a higher salary because of cloud certification

52% people find better career opportunities

Professionals with certifications received an average raise of 40%

82% of hiring managers agree that cloud certifications make a candidate more attractive

AWS Certification journey



Introduction to AWS Certified Cloud Practitioner

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Introduction to AWS Certified Cloud Practitioner

6+ months of exposure to AWS Cloud

Understanding of IT services and their uses in the AWS Cloud platform

Knowledge of core AWS services and use cases, billing and pricing models, security concepts

Impact of cloud on your business

Overview of Exam Guide

Domain 1 - 26%

Cloud Concepts

Domain 2 - 25%

Security and Compliance

Domain 3 - 33%

Technology

Domain 4 - 16%

Billing and Pricing

[Download the exam guide »]

[Download the sample questions »]

AWS Certified Cloud Practitioner Learning Paths

How will the exam work?

You'll have to register online at https://www.aws.training/

- Fee for the exam is 100 USD
- Provide two identity documents (ID, Credit Card, details are in emails sent to you)
- No notes are allowed, no pen is allowed, no speaking
- 65 questions will be asked in 90 minutes
- At the end you can optionally review all the questions / answers
- You will know right away if you passed / failed the exams
- You will not know which answers were right / wrong
- You will know the overall score a few days later (email notification)
- To pass you need a score of a least 700 out of 1000

Exam content

- Two types of questions:
  - Multiple choice: has one correct answer and three incorrect responses
  - Multiple response: has two or more correct responses out of five or more options – CAREFUL: the exam software does not tell you if you selected the right number of answers (but the required number is mentioned)
- Always try to answer the question
- Unanswered questions are considered as incorrect
- No penalty for a wrong answer guess!
- If you need to review a question for later (when you're done answering all questions), you can flag it

Introduction to Cloud Computing

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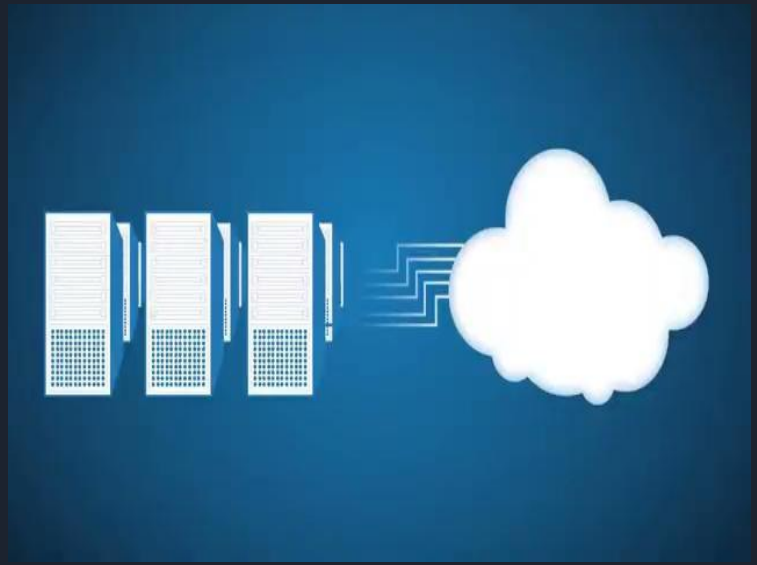
Introduction to Cloud Computing

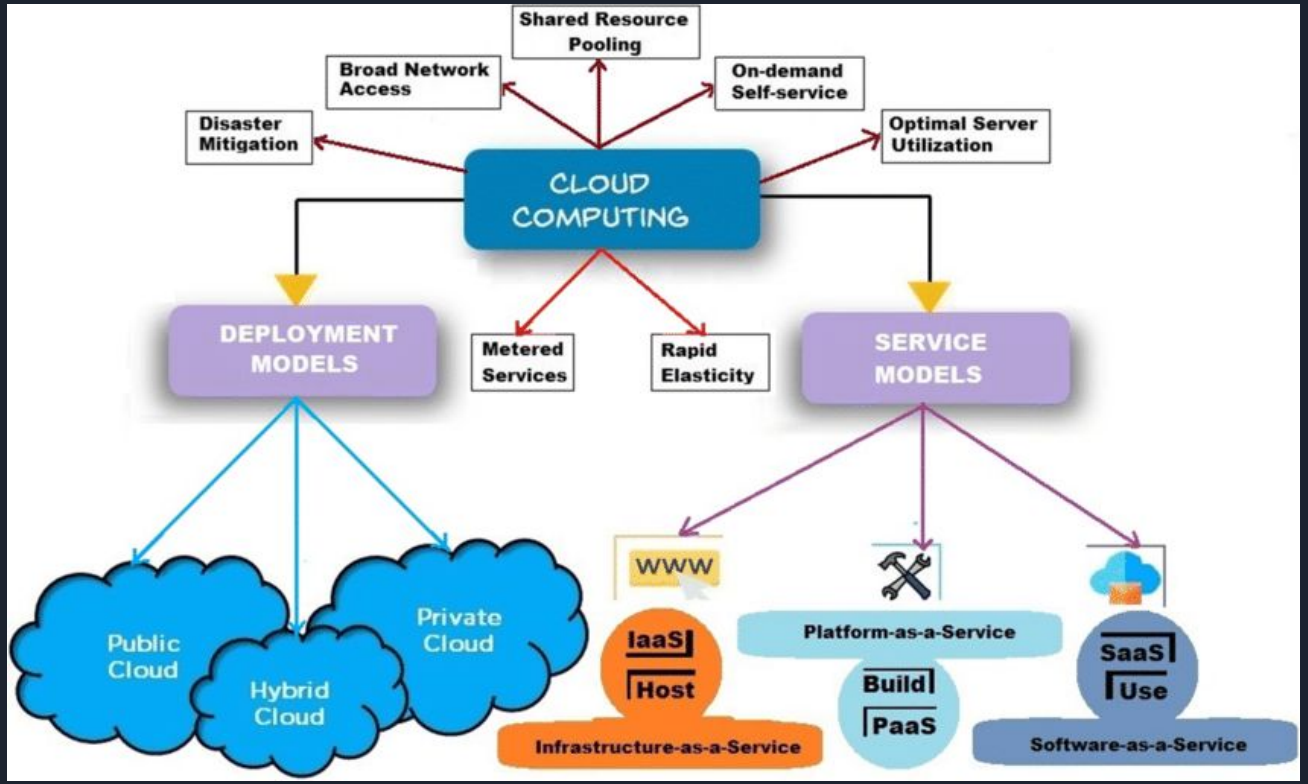
Overview

- Cloud computing is a general term for anything that involves delivering hosted services over the internet.
- Cloud computing is the ***on-demand delivery of compute power, database storage, applications, and other IT resources*** through a cloud services platform via the internet with ***pay-as-you-go pricing***.
- Cloud computing has three main types:

  ➔ *Infrastructure as a Service (IaaS)*
  ➔ *Platform as a Service (PaaS)*
  ➔ *Software as a Service (SaaS)*

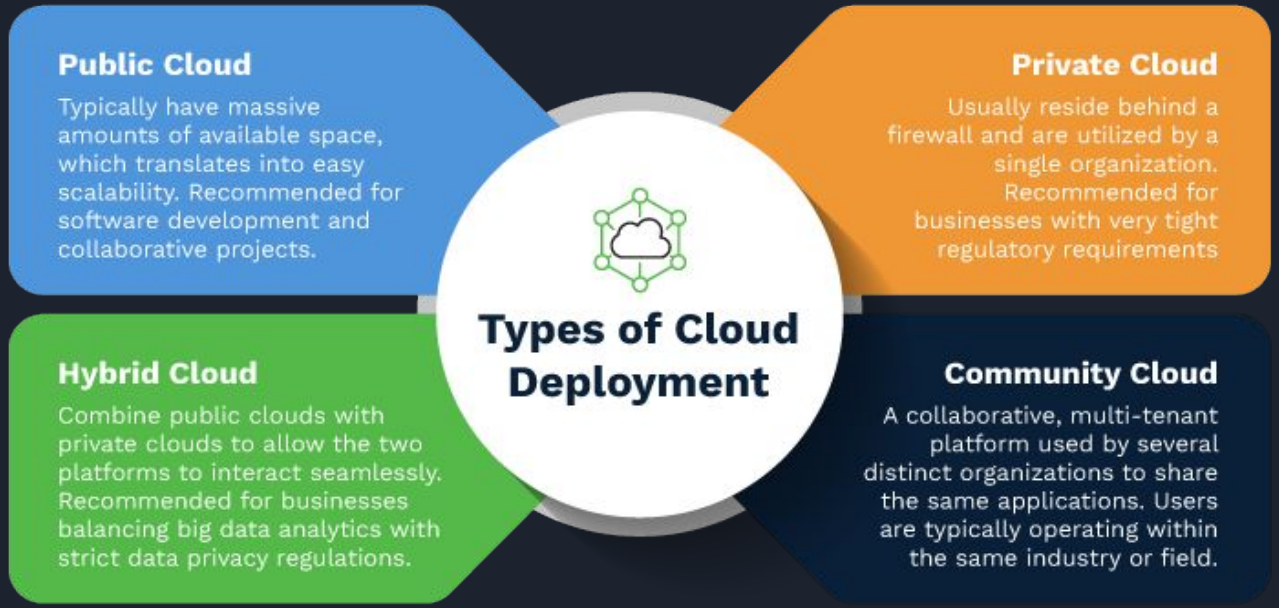


Cloud Computing



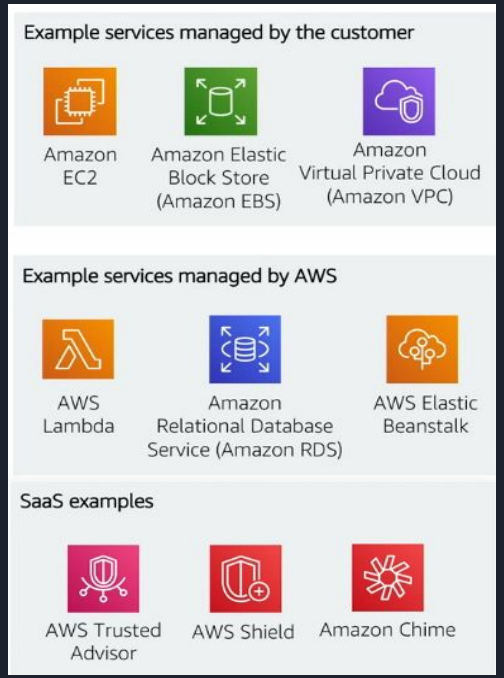
Cloud Service Model

Cloud Deployment Model



Example of Cloud Computing Types

1. Infrastructure as a Service:
    - Flexibility over configuring networking and storage settings
    - Customer is responsible for managing more aspects of the security
    - Customer configures the access controls
2. Platform as a Service:
    - Customer does not need to manage the underlying infrastructure
    - AWS handles the operating system, database patching, firewall configuration, and disaster recovery
    - Customer can focus on managing code or data
3. Software as a Service:
    - Software is centrally hosted
    - Licensed on a subscription model or pay-as-you-go basis
    - Services are typically accessed via web browser, mobile app, or application programming interface (API)
    - Customers do not need to manage the infrastructure that supports the service



On-Premise vs Cloud Computing

Features	On-premise	Cloud-based
Security	Organization's responsibility	Service provider responsibility
Customization	Difficult	Simple
Updates	Organization has choice	No choice
Ownership	Complete ownership of server and data	Only data ownership
Audit	Difficult	Simple
Connectivity	Might be difficult after working hours	Data acess from anywhere anytime
Affordability	Only big size organization	All size organization

Six Advantages of Cloud Computing

1. Trade capital expense for variable expense
2. Benefit from massive economies of scale
3. Stop guessing capacity
4. Increase speed and agility
5. Stop spending money running and maintaining data centers
6. Go global in minutes

Introduction to AWS

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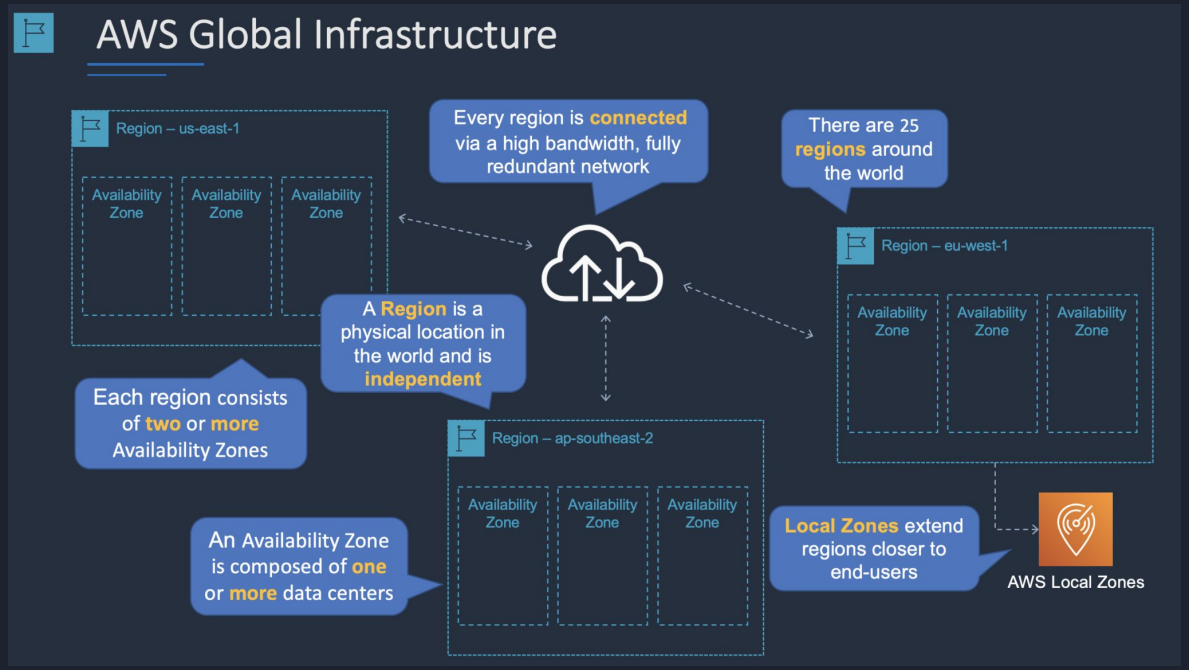
Introduction to AWS

- Amazon Web Services (AWS) is a secure cloud services platform offering compute power, database storage, analytics, application and deployment services that help organizations move faster, lower IT costs, and scale applications.
- AWS provides services from dozens of data centers spread across availability zones (AZs) in regions across the world.



AWS Global Infrastructure Map

The AWS Cloud spans 84 Availability Zones within 26 geographic regions around the world, with announced plans for 24 more Availability Zones and 8 more AWS Regions in Australia, Canada, India, Israel, New Zealand, Spain, Switzerland, and United Arab Emirates (UAE).

AWS Global Infrastructure Map

- Regions:
  - Based in a specific geographic region
  - Made up of two or more Availability Zones (AZ's)
  - Offers a specific subset of AWS services
- Availability Zones
  - Made up of one or more data centers
  - Low latency communication between availability zones
  - Designed to isolate any failure to a single availability zone
- AWS Edge Locations
  - Used as nodes of a global content delivery network
  - Allows AWS to serve content from locations closest to users
  - Primarily used by Amazon CloudFront and related services

How to choose an AWS Region?

1. Compliance with data governance and legal requirements
2. Proximity to customers
3. Available services within a Region
4. Pricing

Ways to interact with AWS

Three Ways to Interact with AWS

AWS Management Console

Easy-to-use graphical interface

Command Line Interface (AWS CLI)

Access to services via discrete command

Software Development Kits (SDKs)

Access services in your code

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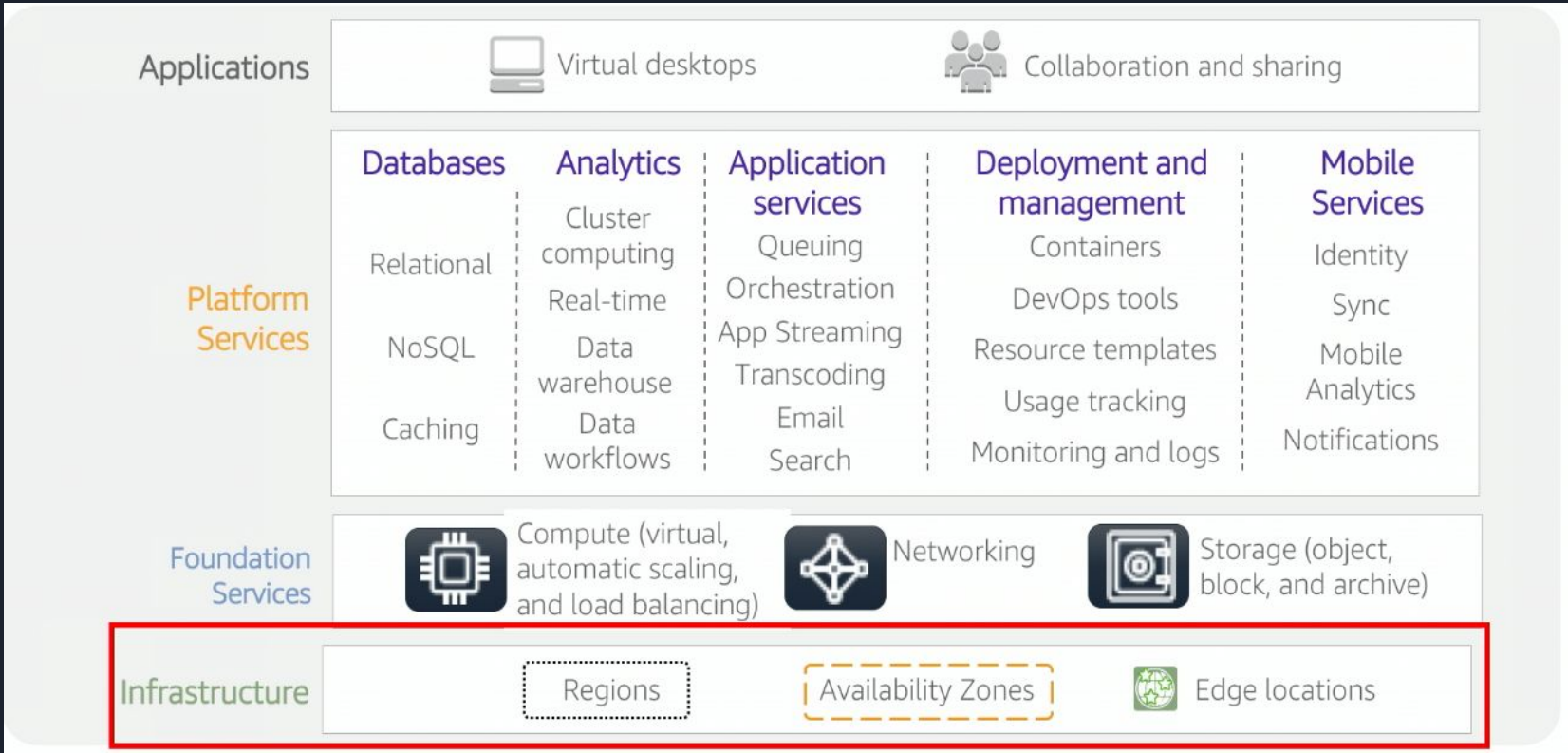
Pricing of the Cloud

1. AWS has 3 pricing fundamentals, following the pay-as-you-go pricing model
2. Compute
    - Charged per hour/second
    - Varies by instance type
3. Storage
    - Charged typically per GB
4. Data transfer
    - Outbound is aggregated and charged
    - Inbound has no charge (with some exceptions)
    - Charged typically per GB

AWS Services



AWS Services

Service Category	Service Examples
Compute	Amazon Elastic Compute Cloud (Amazon EC2) AWS Elastic Beanstalk AWS Fargate AWS Lambda
Storage	Amazon Simple Storage Service (Amazon S3) Amazon Elastic Block Store (Amazon EBS) Amazon S3 Glacier
Networking & Content Delivery	Amazon Virtual Private Cloud (Amazon VPC) Amazon Route 53 Amazon CloudFront
Database	Amazon Aurora Amazon Relational Database Service (Amazon RDS) Amazon DynamoDB

AWS Services

Service Category	Service Examples
Analytics	Amazon Athena Amazon Redshift Amazon Kinesis
AWS Cost Management	AWS Cost Explorer AWS Budgets AWS Cost and Usage Report
Management & Governance	Amazon CloudWatch AWS CloudFormation AWS CloudTrail AWS Trusted Advisor
Migration & Transfer	AWS Database Migration Service AWS Snowball AWS DataSync
Security, Identity & Compliance	AWS Identity and Access Management (IAM) Amazon Inspector AWS Shield AWS Security Hub

AWS Free Tier

- Enables you to gain free hands-on experience with the AWS platform, products and services. Free for 1 year for new customers

- The free tier applies to certain participating AWS services up to a specific maximum amount of usage each month. The AWS Free Usage Tier is comprised of three different types of pricing models,
  - A 12-month Free Tier,
  - An Always Free offer, and
  - Short term trials.

- Services with no charge

Thank you!

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