AWS Cloud Practitioner Exam (1/4)

Domain 1: Cloud Concepts

Topics

1.1 Define the AWS Cloud and its value proposition

- Define the benefits of the AWS cloud including:
  - Security
  - Reliability
  - High Availability
  - Elasticity
  - Agility
  - Pay-as-you go pricing
  - Scalability
  - Global Reach
  - Economy of Scale
- Explain how the AWS cloud allows users to focus on business value
  - Shifting technical resources to revenue-generating activities as opposed to infrastructure

1.2 Identify aspects of AWS Cloud Economics

- Define items that would be part of a Total Cost of Ownership proposal
  - Understand the role of operational expenses (OpEx)
  - Understand the role of capital expenses (CapEx)
  - Understand labor costs associated with on-premises operations
  - Understand the impact of software licensing costs when moving to the cloud
- Identify which operations will reduce costs by moving to the cloud
  - Right-sized infrastructure
  - Benefits of automation
  - Reduce compliance scope (for e.g. reporting)
  - Managed services (e.g. RDS, ECS, EKS, DynamoDB)

1.3 Explain the different cloud architecture design principles

- Explain the design principles
  - Design for failure
  - Decouple components versus monolithic architecture
  - Implement elasticity in the cloud versus on-premises
  - Think parallel

AWS Cloud Computing

on-demand delivery of compute power, database storage, applications and other IT resources through a cloud services platform via the internet

- Variable Expenses - pay only what you need/consume
- Economies of Scale - lower variable cost because usage is aggregated in the cloud
- Stop Guessing - capacity decisions need not be made prior/less idle utility
- Increase Speed and Agility - new features are a click away and on the platform
- Save Money - (on storage/infrastructure) focus on tools that differentiate your business from others, not your infrastructure
- Go Global - easily deploy application in multiple regions

The 9 benefits

Security | Reliability | High Availability | Elasticity | Agility | Pay-as-you-go | Scalability | Global Reach | Economies of Scale

AWS' Business Value: takes care of technical and infrastructure aspects of managing resources and frees up time to focus on creative, unique and revenue-generating aspects of the business

AWS Cloud Economics

Cloud Architecture Design Principles

Types of cloud computing:

Enterprise IT [everything is customer managed]

Infrastructure (aaS) [includes security, databases, OS]

Platform (aaS) [application and deployment of software]

Software (aaS) [end user application]

Cloud Deployment Models

On-premise --- Hybrid Cloud --- Cloud

Global Infrastructure: 2 availability zones (at least) within a region