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AWS CERTIFIED CLOUD PRACTITIONER

AWS CCP OVERVIEW

ONLINE TRAINING BY KRISHNAJI PAWAR

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

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MODULE 2

What Is Cloud Computing?

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AWS CERTIFIED CLOUD PRACTITIONER CCP OVERVIEW

To make informed decisions about using Amazon Web Services (AWS) cloud platform, it's crucial to understand its nature, technologies, cost savings, operational advantages, and the differences between cloud-based applications and traditional ones. Cloud computing is a transformative paradigm in information technology, transforming data access, storage, and management.

Learning Objectives

- Introduction
- What Is Cloud Computing?
- Understanding Your AWS Account
- Understanding the AWS Environmen
- Working with Your AWS Resource
- AWS Certified Cloud Practitioner Credential
- Summary and Resources
- AWS CCP Quiz_Test Your Knowledge!

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INTRODUCTION

- Cloud computing refers to the delivery of computing services over the Internet, allowing users to access these resources on-demand.
- Key characteristics of cloud computing include on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service.

Cloud Computing Service Models

- Infrastructure as a Service (IaaS): Provides virtualized computing resources over the Internet.
- Platform as a Service (PaaS): Offers a framework for developers to build, deploy, and manage applications without dealing with the underlying infrastructure.
- Software as a Service (SaaS): Hosts software applications on the cloud and makes them accessible to users via the Internet.

CLOUD COMPUTING DEPLOYMENT MODELS

- Public Cloud: A third-party cloud service provider owns, operates, and shares resources across multiple organizations.
- Private Cloud: Involves cloud infrastructure dedicated to a single organization, providing greater control and security.
- Hybrid Cloud: Allows for the sharing of data and applications between both private and public cloud environments.
- Community Cloud: Several organizations with similar interests or requirements share this model.

ADVANTAGES OF CLOUD COMPUTING

- Cost savings: Reduces capital expenditures associated with purchasing and maintaining hardware and software.
- Scalability: Allows businesses to easily scale resources up or down based on demand.
- Improved collaboration: Enables teams to collaborate in real-time, regardless of location.
- Automatic updates: Cloud service providers handle maintenance and upgrades.

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CHALLENGES AND CONSIDERATIONS

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- Security and privacy: Storing sensitive data offsite raises concerns about unauthorized access and data breaches.
- Downtime and reliability: Cloud services may experience outages, impacting business operations.
- Vendor lock-in: Challenges may arise when switching providers due to proprietary technologies and data formats.

SERVER VIRTUALIZATION: BASICS AND CLOUD PLATFORM MODELS

Introduction to Server Virtualization

- Server virtualization abstracts physical hardware into virtual machines (VMs).
- Type 1 hypervisors run directly on physical hardware, reducing waste and lowering costs.
- Type 2 hypervisors run on an existing operating system, relying on that OS to manage hardware resources.

Benefits of Server Virtualization

- Resource Optimization: Allows multiple VMs to run on a single physical server, reducing waste and costs.
- Isolation: Each VM operates independently, preventing issues in one VM from affecting others.
- Simplified Management: Enables easier server management through centralized control panels and tools.
- Disaster Recovery and Backup: Enhances disaster recovery processes through cloning, backing up, and restoring virtual machines.

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CLOUD PLATFORM MODELS

- Infrastructure as a Service (IaaS): Provides virtualized computing resources over the internet.
- Platform as a Service (PaaS): Provides a platform for application development.
- Software as a Service (SaaS): Delivers software applications via the internet, eliminating the need for local installation and maintenance.

Scalability and Elasticity

- Scalability refers to the capacity of a system to increase or decrease its resource allocation to handle varying workloads.
- Elasticity emphasizes the dynamic allocation and deallocation of resources based on real-time demand.

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