

# Day 1 – Introduction to Cloud Computing

Azure Fundamentals

# Session Objectives

Understand what Cloud Computing is

Learn why organizations move to the Cloud

Explore Cloud models: IaaS, PaaS, SaaS

Understand Deployment models: Public, Private, Hybrid

# What is Cloud Computing?

Delivery of computing services (servers, storage, networking, software) over the internet

Pay-as-you-go pricing model

Eliminates the capital expense of owning and maintaining hardware

# Traditional IT vs Cloud

Traditional IT: Own servers, maintenance, upfront cost

Cloud Computing: On-demand, elastic, subscription-based, minimal maintenance

# Key Characteristics of Cloud Computing

On-Demand Self-Service

Broad Network Access

Resource Pooling

Rapid Elasticity

Measured Service (Pay for what you use)

# Benefits of Cloud Computing

Cost Savings – no upfront infrastructure

Scalability – scale up/down instantly

Reliability & Redundancy

Global Reach – deploy apps anywhere

Security & Compliance

# Cloud Service Models

Infrastructure as a Service (IaaS): You manage OS, runtime, app

Platform as a Service (PaaS): You focus on app, provider manages platform

Software as a Service (SaaS): Everything managed by provider

# IaaS, PaaS, SaaS Comparison

IaaS: VMs, Storage, Networking – e.g., Azure VM

PaaS: App Hosting & DBs – e.g., Azure App Service, SQL Database

SaaS: Fully managed apps – e.g., Microsoft 365, Salesforce

# Cloud Deployment Models

Public Cloud: Shared infrastructure (Azure, AWS, GCP)

Private Cloud: Dedicated infrastructure for one organization

Hybrid Cloud: Combination of both worlds (Azure Arc, VPN)

# Cloud Providers Overview

Microsoft Azure – 60+ regions, strong enterprise presence

Amazon Web Services (AWS) – pioneer in cloud

Google Cloud Platform (GCP) – analytics & AI strength

# Real-Life Examples of Cloud Usage

Gmail, Netflix, OneDrive – Cloud-based services

Azure for website hosting, data analytics, and AI workloads

# Shared Responsibility Model

Cloud Provider: Responsible for physical datacenter, network, and infrastructure

Customer: Responsible for data, access, and application configurations

# Cloud Terminologies Simplified

Tenant – the organization's identity in Azure

Subscription – logical container for resources

Resource Group – collection of resources under one group

Resource – any Azure service instance (VM, Storage, etc.)

# Hands-On Demo / Activity

Compare On-Prem vs Cloud Setup Diagram

Preview Azure Free Account creation process

# Quick Recap & Quiz

Q1. What is Cloud Computing?

Q2. List two benefits of Cloud Computing.

Q3. Differentiate between IaaS and SaaS.

# Summary & Next Steps

Summary of Day 1 Topics

Next Session: Introduction to Microsoft Azure (Day 2)