

Module Completion & Exam Hints

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Introduction to Cloud Computing

What is Cloud Computing ?

- ❑ Cloud computing is the delivery of computing services – including servers, storage, databases, networking, software, analytics and intelligence – over the Internet (“the cloud”) to offer faster innovation, flexible resources and economies of scale (Microsoft)
- ❑ Cloud computing really represents renting resources (i.e. CPU, RAM, storage) from a cloud provider (Azure) and only paying for what you use – “*pay-as-you-go*”

Cloud Deployment Models

Cloud Deployment Models

- ❑ There are three different cloud deployment models:
 - ❑ Public Cloud
 - ❑ Private Cloud
 - ❑ Hybrid Cloud
- ❑ How are these different ? Which should I choose ?
 - ❑ Where is the data stored ?
 - ❑ Do I need my current on-premises infrastructure ?
 - ❑ Where will my Apps run ?

Cloud Computing Models

- Types of Cloud Services -

Cloud Computing Models

- ❑ There are three major types of cloud services available:
 - ❑ IaaS – Infrastructure as a Service
 - ❑ PaaS – Platform as a Service
 - ❑ SaaS – Software as a Service
- ❑ Differences between them:
 - ❑ Flexibility and management
 - ❑ Tasks' ownership
 - ❑ Pricing model

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Seven Advantages of Microsoft Azure Cloud Computing

Azure Cloud Advantages

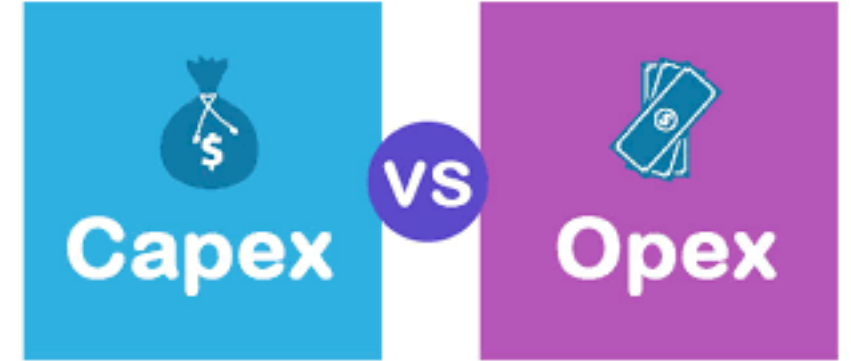
- ☐ Azure Cloud is:
 - ☐ Cost-effective
 - ☐ Scalable
 - ☐ Elastic
 - ☐ Current
 - ☐ Global
 - ☐ Secure
 - ☐ Reliable



CapEx versus OpEx

CapEx and OpEx

- ❑ CapEx and OpEx represent two approaches to how you make an investment; time and money
- ❑ CapEx – Capital Expenditure
 - ❑ Spend money upfront
 - ❑ Upfront cost for the company
 - ❑ Value reduced over time (tax)
- ❑ OpEx – Operational Expenditure
 - ❑ No upfront cost; pay-as-you-use; tax deduction in the same year



Economies of Scale

Economies of Scale

- ❑ Economies of scale - ability to operate more efficiently or at a lower-cost / unit when operating at a larger scale
- ❑ By using Azure cloud computing, you can achieve a lower variable cost than you can get on your own
- ❑ Usage from customers is aggregated in the cloud, providers such as Azure can achieve higher economies of scale, which translates into lower pay-as-you-go prices



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Azure Global Infrastructure. Regions, Geographies & Availability Zones

Azure Global Infrastructure

- ❑ A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network
- ❑ A geography is a discrete market, typically containing two or more regions, that preserves data residency and compliance boundaries
- ❑ Availability Zones are physically separate datacenters within an Azure region, with independent power, network and cooling

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Azure Management Interfaces

Azure Management Interfaces

- ❑ Azure provides multiple distinct options in order to interact with the Azure Cloud Platform:
 - ❑ Azure Portal
 - ❑ Azure Command Line Interface (CLI)
 - ❑ Azure PowerShell module
 - ❑ Azure Cloud Shell
 - ❑ Azure SDKs
 - ❑ Azure Mobile app

Azure Cloud Introduction - Quiz



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Thank you