Microsoft Azure

Administrator Associate Training

Introduction to Cloud Computing

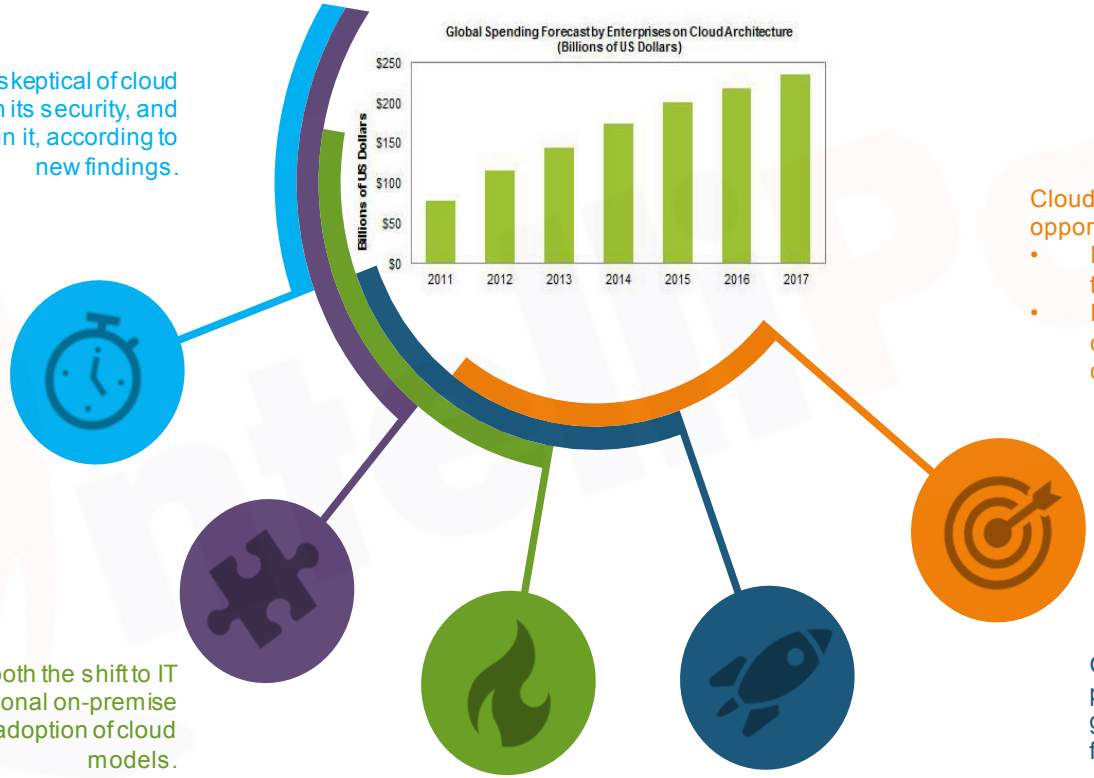
Agenda

- **Why Cloud Computing**
  - Workloads in Cloud
  - Cloud Challenges
- **Overview of Cloud Computing**
  - What is Cloud Computing
  - Definition of Cloud Computing
  - On-premises vs Service Models
  - Advantages & Disadvantages of Cloud Computing
  - Traditional vs Cloud Computing
  - Security issues
  - Pricing Model
  - Use cases

Why Cloud Computing?

Why Cloud Computing?

Businesses have become less skeptical of cloud computing, more confident in its security, and more inclined to invest money in it, according to new findings.



The cloud will continue to disrupt traditional IT models as the growing amount of data generated by people, machines, and things will increasingly be handled in the cloud.

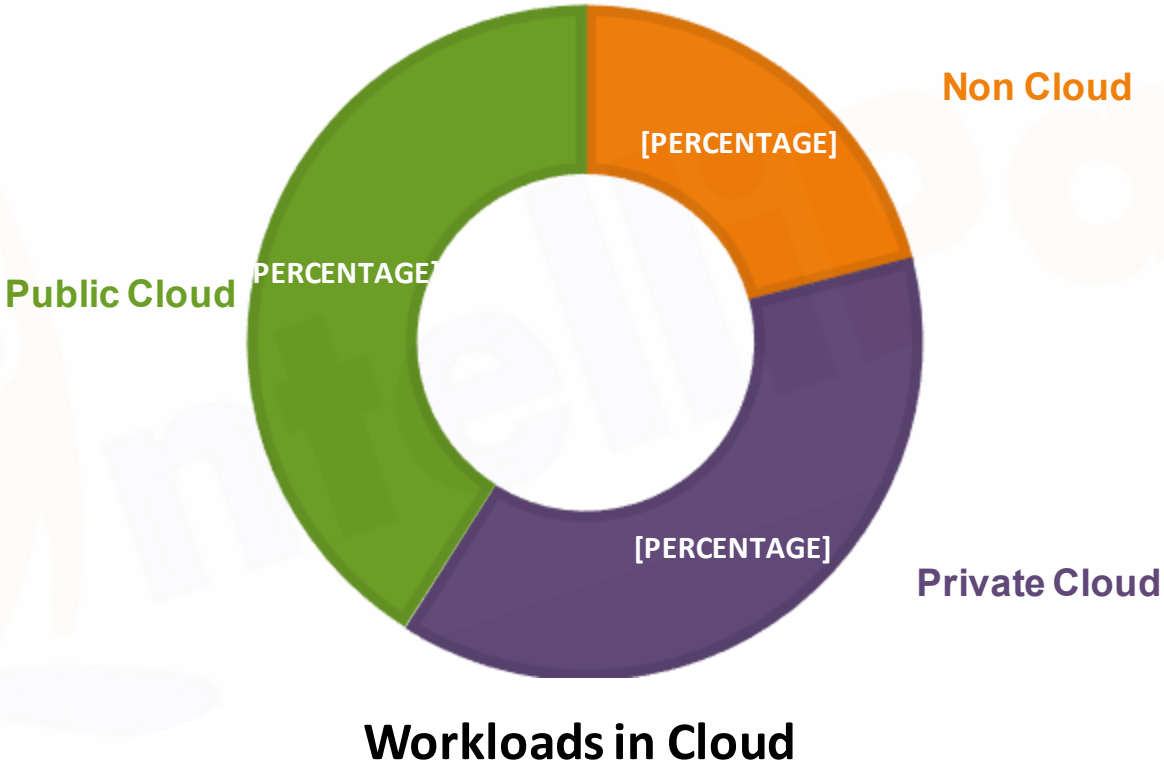
This is highlighted in both the shift to IT spending away from traditional on-premise hardware, and the increased adoption of cloud models.

Cloud computing promises new career opportunities for IT professionals.

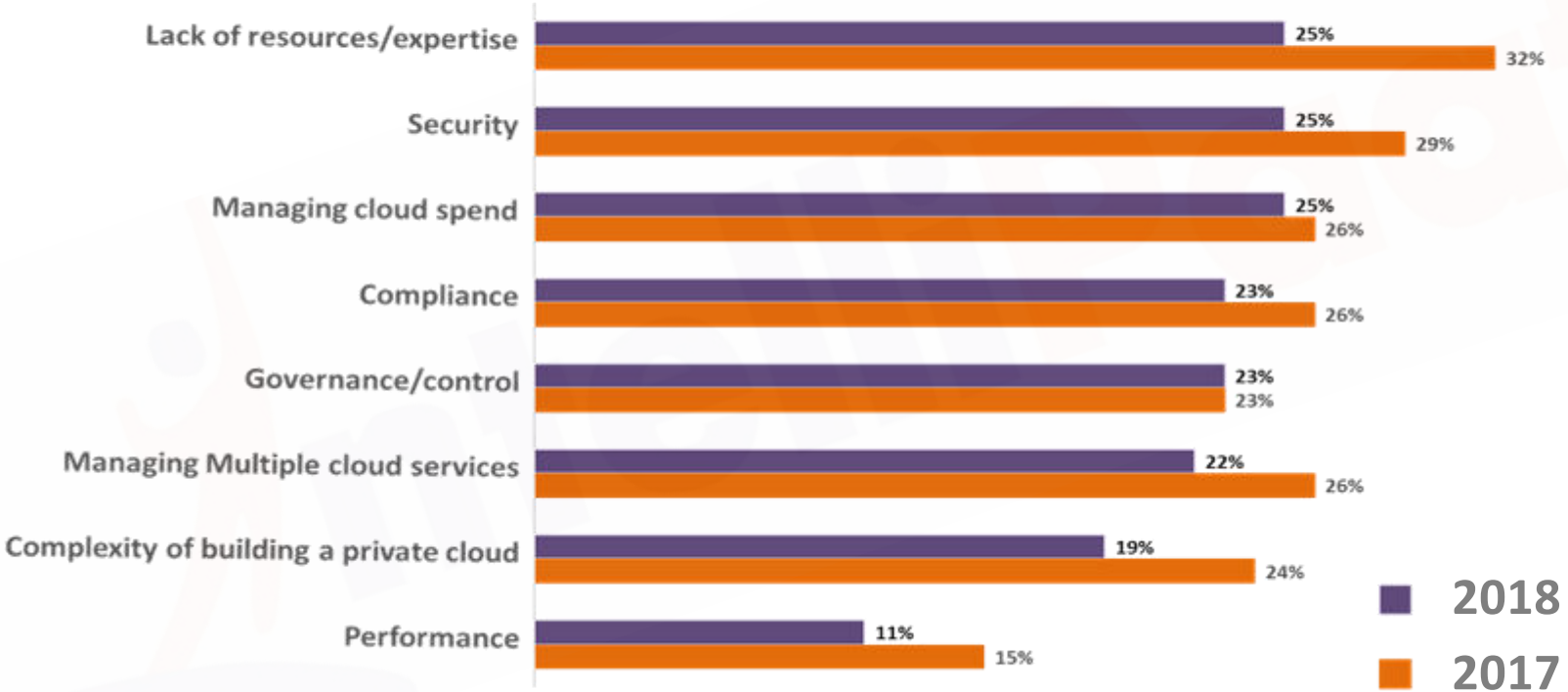
- In many cases, existing core skill sets transfer directly to cloud technologies.
- In other instances, IT pros need to develop new skill sets that meet the demand of emerging cloud job roles.

Gartner predicts the worldwide public cloud services market will grow 18% in 2017 to $246.8B, up from $209.2B in 2016.

Why Cloud Computing?



Why Cloud Computing?



Cloud Challenges

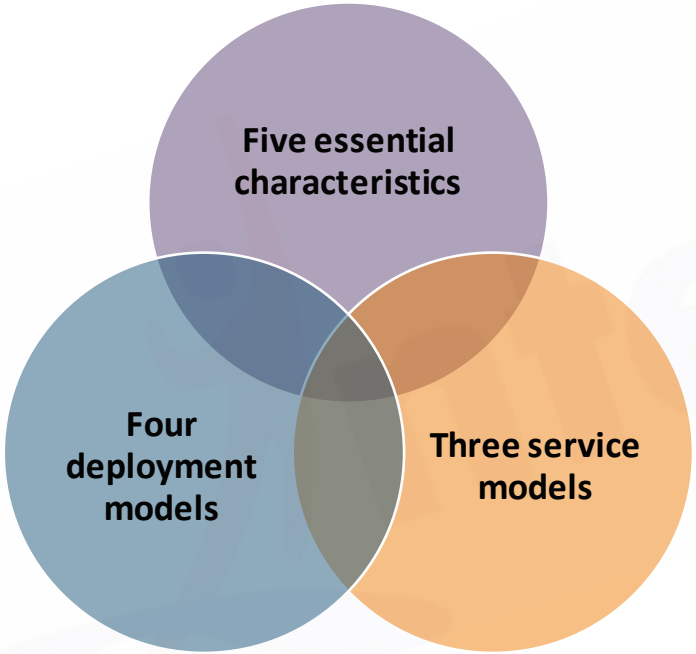
Overview of Cloud Computing

What is Cloud Computing?

- **Cloud computing** is the delivery of computing services - servers, storage, databases, networking, tools and software over the Internet.
- Cloud computing enables companies to consume a compute resource, such as a servers, storage or an application, as a utility like water or electricity, rather than having to build and maintain computing infrastructures in house.
- Companies offering these computing services are called **cloud providers** and they charge for cloud computing services based on usage.

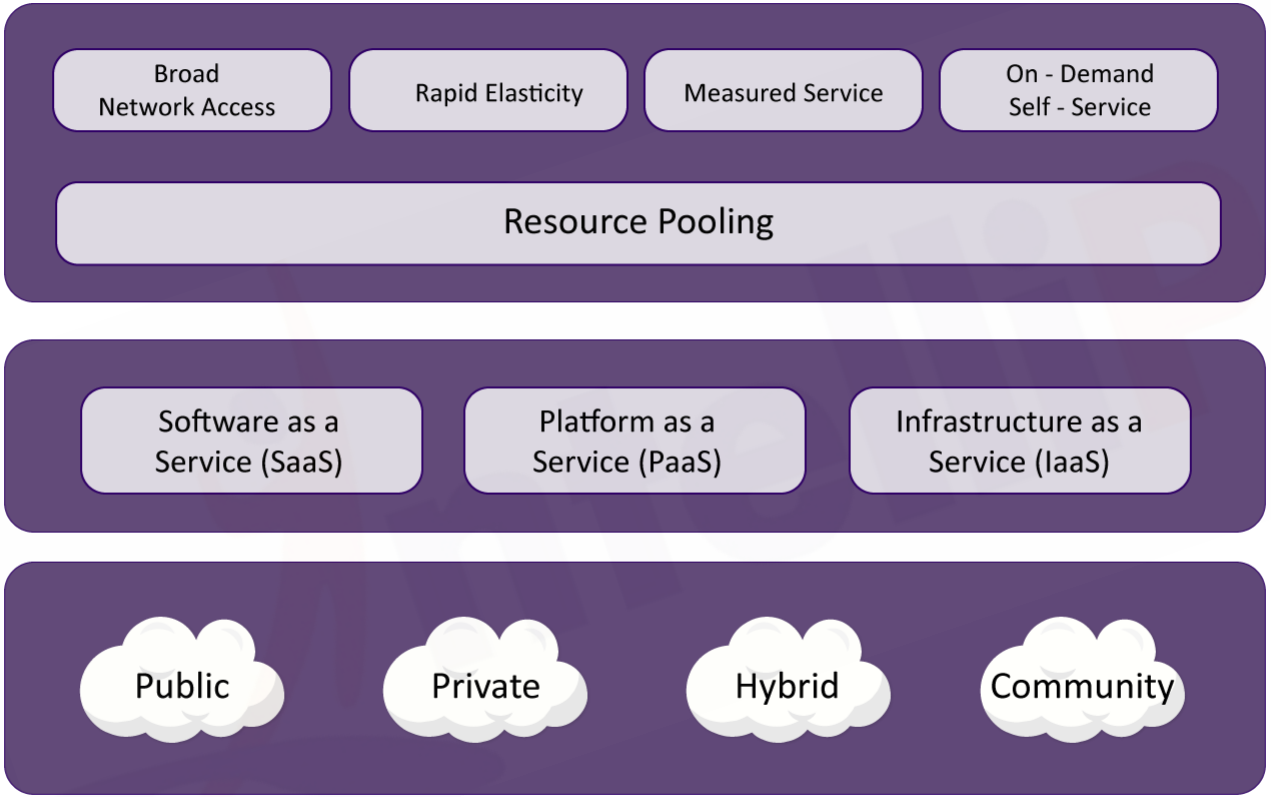
Cloud Computing: Definition

This cloud model is composed of



Cloud computing is a model for enabling **ubiquitous**, **convenient**, **on-demand** network access to a **shared pool** of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

Cloud Computing: Definition



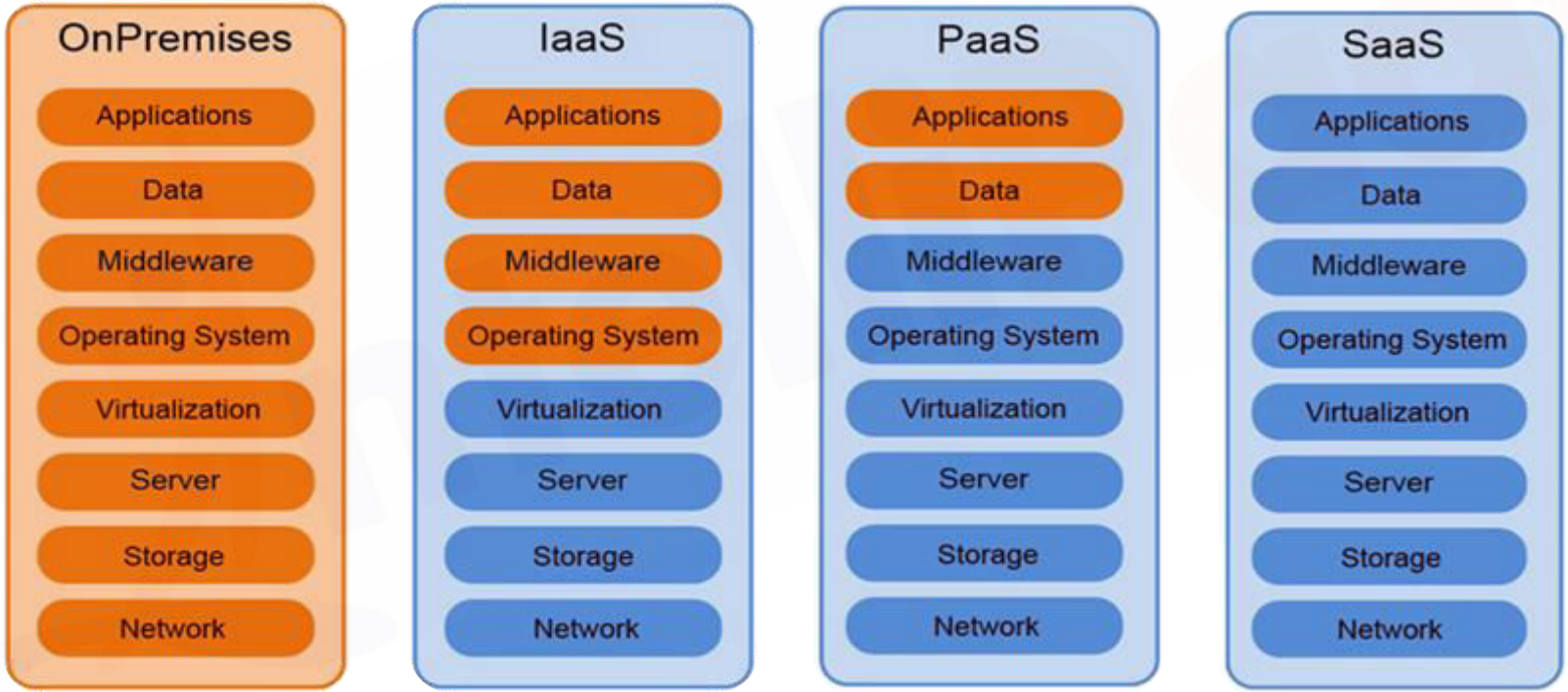
Essential Characteristics

Service Models

Deployment Models

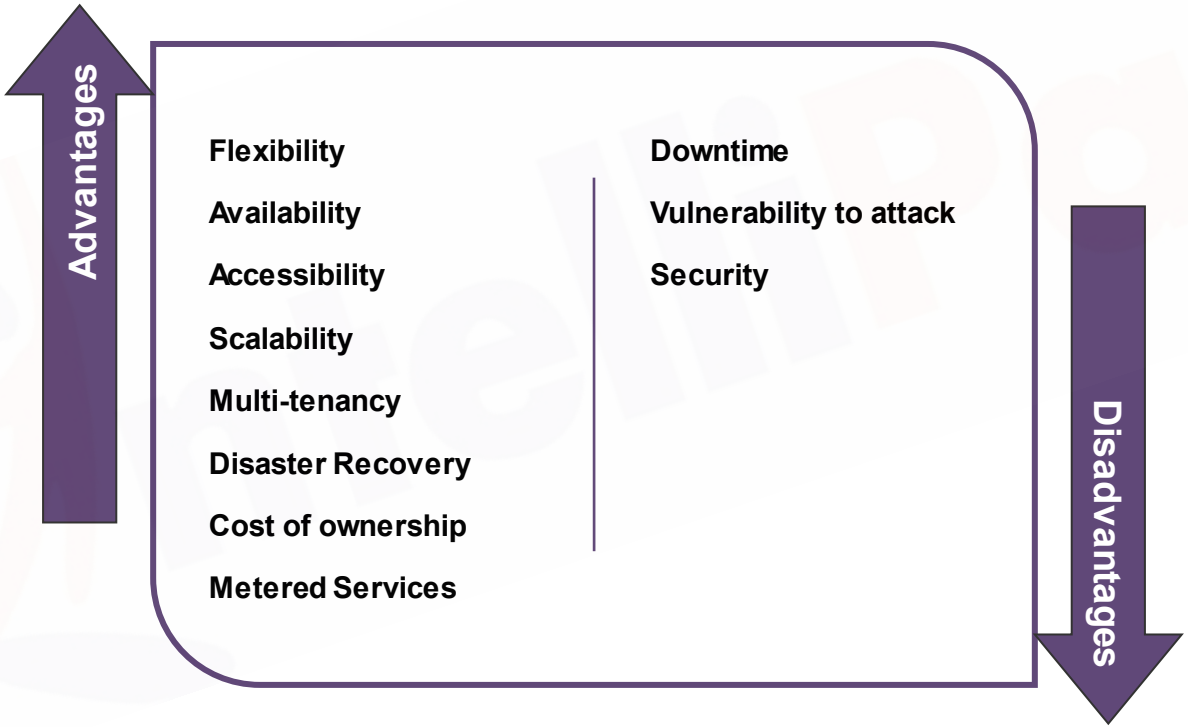
Cloud Computing

On-premises vs Service Models



Cloud Computing

Advantages & Disadvantages



Cloud Computing

Traditional vs Cloud Computing

Buying

1. Money Up-front
2. Road Taxes
3. Ownership
4. Maintenance cost
5. Insurance Cost
6. Driver Cost (optional)
7. Fuel cost
8. Repair

Rental

1. Money as per usage
2. No Other charges
3. Price
4. Affordability
5. Upgrade the Car type
6. Dedicated or Share

Cloud Computing

Security Issues

- Data Breach
- Access Management
- Insecure Interfaces
- Account Hijacking
- System Vulnerabilities
- Advanced Persistent Threats
- Data Loss
- Malicious Insiders
- Insufficient Due Diligence
- Abuse and Nefarious Use
- Denial of Service
- Shared Technology Vulnerabilities

Cloud Computing

Pricing Model

- **Fixed Pricing** includes pricing mechanism as:
  - Pay-per-use Pricing
  - Subscription Pricing
  - Hybrid Pricing Model
  - List Pricing Model
- **Dynamic Pricing** is calculated based on pricing mechanism whenever there is a request.

Type	Service	Pricing Scheme
Pay-per-use	Azure Virtual Machine	- Charges on hourly for usage of instance
Subscription	Dropbox	- Pricing assigned for stored in GB
Hybrid	Google / App Engine	- Price assigned on monthly basis - If limit exceeds then charge on per GB and processing power on hourly basis

Cloud Computing

Use Cases

- File Storage
- Email
- Test and Development
- Cloudbursting
- Disaster Recovery
- Backup
- Virtual Desktop
- Proof of Concepts
- Going Global

QUIZ

Quiz 1

Point out the correct statement:

A	Cloud architecture can couple software running on virtualized hardware in multiple locations to provide an on-demand service
B	Cloud computing relies on a set of protocols needed to manage interprocess communications
C	Platforms are used to create more complex software
D	All of the mentioned

Answer 1

Point out the correct statement:

A	Cloud architecture can couple software running on virtualized hardware in multiple locations to provide an on-demand service
B	Cloud computing relies on a set of protocols needed to manage interprocess communications
C	Platforms are used to create more complex software
D	All of the mentioned

Quiz 2

Point out the wrong statement:

A	A cloud cannot be created within an organization's own infrastructure or outsourced to another datacenter
B	A composable component must be modular
C	A composable component must be stateless
D	None of the mentioned

Answer 2

Point out the wrong statement:

A	A cloud cannot be created within an organization's own infrastructure or outsourced to another datacenter
B	A composable component must be modular
C	A composable component must be stateless
D	None of the mentioned

Quiz 3

Full form of SAAS?

A. Storage-as-a- service

B. Security-as-a- service

C. Software-as-a- service

D. Server-as-a- service

Answer 3

Full form of SAAS?

A	Storage-as-a- service
B	Security-as-a- service
C	Software-as-a- service
D	Server-as-a- service

Quiz 4

Full form of IAAS?

A. Information-as-a-service

B. Infrastructure-as-a-service

C. Indexing-as-a-service

D. All of the mentioned above

Answer 4

Full form of IAAS?

A	Information-as-a-service
B	Infrastructure-as-a-service
C	Indexing-as-a-service
D	All of the mentioned above

Quiz 5

Full form of PAAS?

A	Purchase-as-a-service
B	Provisioning-as-a-service
C	Pipeline-as-a-service
D	**Platform-as-a-service**

Answer 5

Full form of PAAS?

A	Purchase-as-a-service
B	Provisioning-as-a-service
C	Pipeline-as-a-service
D	**Platform-as-a-service**

Quiz 6

Hybrid cloud is _____?

A. a third-party cloud

B. a privately accessed cloud

C. a publicly held cloud

D. **a mixture of private and public cloud**

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Hybrid cloud is _____?

A. a third-party cloud

B. a privately accessed cloud

C. a publicly held cloud

D. a mixture of private and public cloud

Quiz 7

Companies fully hosted on cloud stores their data in their on-premise servers?

A	True
B	False

Answer 7

Companies fully hosted on cloud stores their data in their on-premise servers?

A	True
B	False

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