Explain the difference between cloud and traditional data centers.

- The traditional data center is expensive due to heating and hardware/software issues. Mostly, the expenditure is on the maintenance of the data centers.
- Cloud is scaled up when there is an increase in demand, hence such expenditure issues are not faced in Cloud Computing.

32. What are the uses of APIs in cloud services?

- APIs (Application Programming Interfaces) are used to eliminate the necessity to write complete programs.
- Here, instructions are provided to make communication between one or more applications.
- Creation of applications is made easy and accessible for the link of cloud services with other systems.

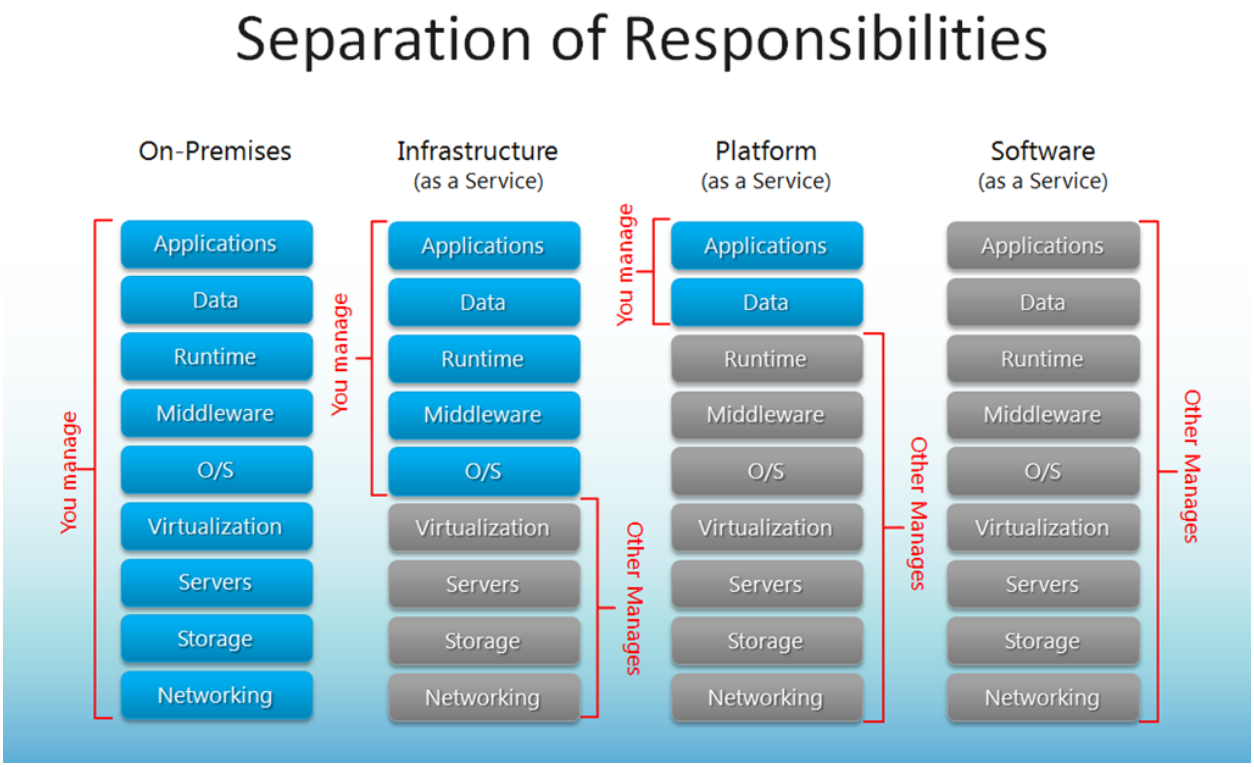
Explain the security usage in the Amazon Web Services model.

- AWS supports security groups.
- Access is provided to create a security group for a jump box with SSH access only for port 22 open. Later, a webserver group and a database group are created. The webserver group provides 80 and 443 from around the world, but only port 22 will be vital among the jump box group. The database group allows port 3306 from the webserver group and port 22 from the jump box group. The addition of any machines to

the webserver group can store in the database. No one can directly SSH to any of our boxes.

1.Compare between Cloud and On-premise Computing.

Criteria	Cloud	On-premise
Initial cost	Low	High
Maintenance and support	Hassle-free	Needs attention
Upgrade	Automatic	Manual
Scalability	Excellent	Good
Pay as you go	Yes	No



Question # 10

What are the different layers of cloud computing?

Answer:-

Cloud computing consists of 3 layers in the hierarchy and these are as follows:
1. Infrastructure as a Service (IaaS) provides cloud infrastructure in terms of hardware like memory, processor speed etc.
2. Platform as a Service (PaaS) provides cloud application platform for the developers.
3. Software as a Service (SaaS) provides cloud applications which are used by the user directly without installing anything on the system. The application remains on the cloud and it can be saved and edited in there only.

Read More Answers.

Question # 11

What is the difference between scalability and elasticity?

Answer:-

Scalability is a characteristic of cloud computing through which increasing workload can be handled by increasing in proportion the amount of resource capacity. It allows the architecture to provide on demand resources if the requirement is being raised by the traffic. Whereas, elasticity is being one of the characteristic provide the concept of commissioning and decommissioning of large amount of resource capacity dynamically. It is measured by the speed by which the resources are coming on demand and the usage of the resources.

Question # 24

What do you understand from VPN?

Answer:-

VPN stands for virtual private network; it is a private cloud which manages the security of the data during the transport in the cloud environment. VPN allows an organization to make a public network as private network and use it to transfer files and other resources on a network.

Read More Answers.

Question # 25

Please tell me what does a VPN consists of?

Answer:-

VPN is known as virtual private network and it consists of two important things:
1. Firewall: it acts as a barrier between the public network and any private network. It filters the messages that are getting exchanged between the networks. It also protects from any malicious activity being done on the network.
2. Encryption: it is used to protect the sensitive data from professional hackers and other spammers who are usually remain active to get the data. With a message always there will be a key with which you can match the key provided to you.

On Azure, you can decide how to access your machine by allowing the open listening ports e.g. HTTPs (443), SSH (22) and RDP (3889) as a secure options or non-secure like, Telnet (20) & HTTP (80):

Note: the best way is using WhiteList Network Security Group (NSGs).

WhiteList means everyone is blocked except IPs on this List.