

17. Write the Security Management issues of Cloud Computing.

Ans:

- Id & authentication
- Certification & accreditation
- Virus Protection
- Cryptography
- Physical security
- Access control

18. What are the areas for client, cloud looks up

Ans:

- Customer assistance
- Subscriptions
- Reporting
- Personalization

19. Define Network Centric Computing

Ans:

It's a type of framework for network centric software architecture.

20. Write the difference between grid Computing & utility Computing

Ans:

Grid Computing was used for scientific Computing. Works on distributed system.

Utility Computing targeted at enterprise Computing.

Future Internet \Rightarrow Will be Content Centric

20. Define Network Centric Content

Ans:

It's a data approach on the network rather than the location.

21. Write the advantages of network centric content & Computing

Ans:

- Shared Computing & Communication resources.
- Data sharing facilitates.
- Cost reduction.
- User Convenience

22. Demonstrate Creating a VM in Azure.

Ans:

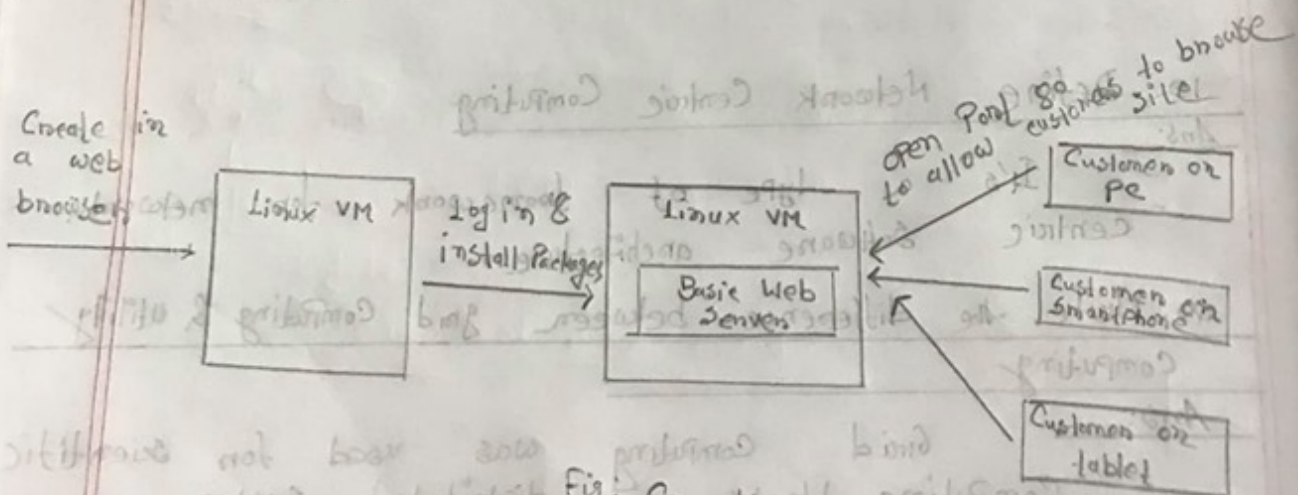


Fig. Creation of VM in Azure

Step 1:

Step-1: Go to <https://portal.azure.com>.
Login with the Microsoft account.

Step-2: Go to
Create a resource → Compute → Ubuntu Server
18.04 LTS.

Step-3:

VM.

Configure the basics for

Step-4:

as authentication type. Choose SSH Public key.
Put username & Public key.

Step-5:

Ports from Public inbound. Select allow. Selected
Ports. Choose SSH (22).

Step-6:

Step-7:

Select review + create.

Select create.

Q. SSH = Secured Shell.

23. What is SSH (Secured Shell)?

Ans

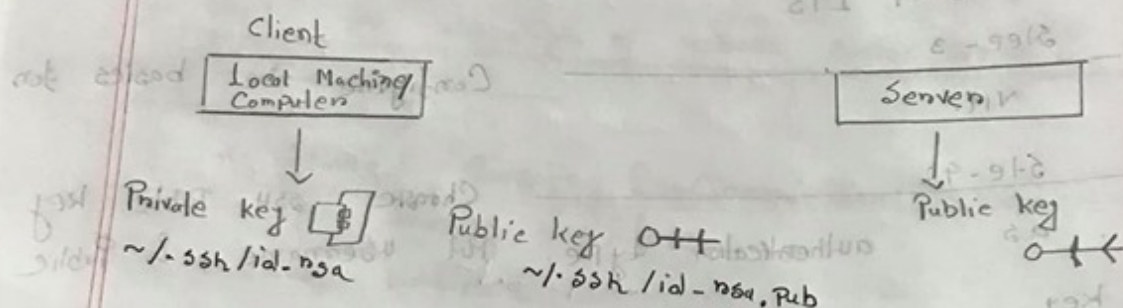
It's a Cryptographic network Protocol.

Q. SSH uses two keys:
i. Public key
ii. Private key.

- Public key - server ke
- Private key - local machine ke, Private key se generate kiya Public key ko - server local machine ke

Q4. Demonstrate Public key Authentication ssh

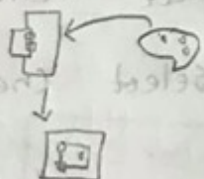
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Step-1: Client initiates ssh Connection

Step-2: Server sends a random message

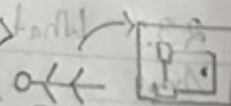
Step-3:



Client encrypts message with Private key

Step-4: Client sends encrypted message

Step-5:



Public key



Step-6: If messages match, client authenticated

Server decrypts message with Public key

25. Which Command we use to generate Public key authentication SSH?

Ans.

ssh-keygen.

Public key authentication এর জন্য আমরা ssh-keygen Command টা cmd হা দিয়ে থাকি।

Public key authentication এর কাজটা আমরা PuTTYgen Software দিয়ে চারসেত করতে পারি।

26. Why we need remote log in.

Ans:

Remote log in helps in some ways like:

- Access to important applications.
- Emergency development
- Decrease employee attrition rate.

27. Which Command do we use for remote log in? Write the meaning of that command. Write the Process

Ans.

ssh username@ip. Example:

ssh Nasin@40.65.185.172

- ssh means: We are using Public key authentication.
- username: The user of the virtual machine
- ip: The Public ip of the virtual machine

Step-1: Go to the dashboard of azure Portal.

Step-2: Select VM [Virtual Machine] from all resources.

Step-3: Click Connect

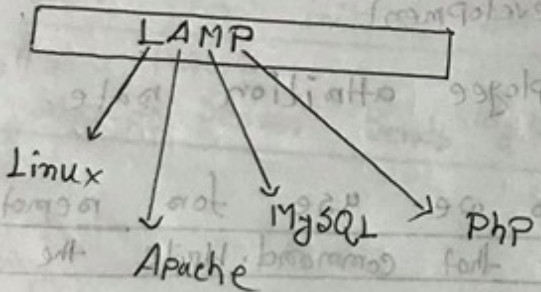
Step-4: Copy the login using VM local account.

Example: `ssh username@ip`

Step-5: Paste it on the Command Prompt of the local machine. The local machine has the Private key.

Step-6: Press Enter. Then type yes.

Step-7: Connection established.



28. What is LAMP

Ans:

LAMP is an archetypal model of web service stacks.

29. Write the Command to install Web servers in VM. Also describe the meaning

Ans:

The Command

`sudo apt-get update` && `sudo apt install -y lamp-server^.`

a. `sudo`: It means admin Privilege

b. `apt-get update`: Updates the available Packages.

c. `apt install -y lamp-server^`: "y" tells to install the entire set of Packages that would be used by the lamp server.

30. Why we use SSH Port number 22

Ans:

SSH replaces telnet (Port 23) & ftp Port 21 (Port 21). That's why SSH Port number is 22. Also SSH encryption uses Port 22.

31. Define Web traffic

Ans:

Web traffic is the amount of data sent & received by visitors to a website

32. Which Command we use to allow web traffic

Ans:

The Command

`az vm open-Port -g resource-group -n VM-name --Port 80`

Example:

If the resource group name is CloudLab & The virtual machine name is Nasim. Then it becomes

`az vm open-Port -g CloudLab -n Nasim --Port 80`

Command of `az vm open-Port` is a bash script ☐ input file ☐ `az vm open-Port` is a bash script ☐ input file ☐

33. Why we need to open Port 80?

Ans:

While creating a virtual machine inside azune Portal; a network security group was also created. For remote management we have used ssh. But we have not allow network security group to handle web traffic. For this reason we need to open Port numbers 80.

34. What happens after opening Port number 80?

Ans: After opening Port 80; if we enter the Public IP of the created virtual machine, the default apache website loads.

35. Write the Command to install phpmyadmin.

Ans: `sudo apt-get install phpmyadmin -y`

36. Write the Command to Create a user on phpmyadmin

Ans:

Command-1:

`sudo mysql -u root -p`

This Command enables to access mysql.

Command-2:

`CREATE USER 'Username'@'%' IDENTIFIED BY 'password';`

Example:

`CREATE USER 'Nasim'@'%' IDENTIFIED BY '1234';`

This Command creates a specific user with a Password.

Command-3:

`GRANT ALL PRIVILEGES ON *.* TO 'username'@'%' WITH GRANT OPTION;`

Example:
GRANT ALL PRIVILEGES ON *.* TO 'Nasim'@'%' WITH GRANT OPTION;

This Command gives Privilege to the created user.

(i) This Command gives Privilege to the created user.

31. Why we need filezilla.

Ans:

We need filezilla to upload & download files from web hosting server.

38. Why we need SFTP

Ans:

It facilitates data access & data transfer over a secure shell data stream.

/var/www/html

Public ip