Git: It is an open-source version control tool

Maven: It is an open-source-build management tool

Jenkins: It is an open-source continuous Integration tool

Docker: It is an open-source container tool

Jenkins: It is an open-source configuration management tool

Jenkins: It is an open-source Infrastructure as a code(Iac) tool

Kubernetes (K8S): It is an open-source container management tool

Software Requirements:

1. git(global infrastructure tracker)

2. Mobixtream

3. Docker hub

4. AWS

Installation of git:

Steps:

1. Download git

2. Downloads for Windows 2.42.0

3. Click on 64-bit git for Windows setup

4. Click on next->next🡪------🡪 install🡪finish

Installation of mobaxterm

1. Download mobaxterm

2. Home edition-> Download now

3. Click on the portable edition

Create an account in GitHub

1. type github -🡪 first link

2. Sign Up

Create account on AWS

1. amazon management console

2. create an account

3. emailed

Username

Verify email address

4. root password

5. step (1-5) Select the bank account and PAN number

**Computer Networking**

Computer Networking is a process of connecting billions of computer devices with the network and it allows to share resources and files to each other

Types of Network:

1. PAN[ Personal Area Network]

2. LAN [Local Area Network]

3. MAN [Metropolitan Area Network]

4. WAN [Wide Area Network]

Switch: Switch is a hardware device used to connect multiple computing devices within the network.

Firewall: A firewall is a network-securing device that monitors and filters the network's incoming and outgoing traffic.

Router: A router is a gateway that passes/processes the data from one network to another network.

Gateway: A Gateway is a hardware device that is used to connect two similar or dissimilar networks.

Server:

The server is the main computer that will be used to share the resources to each other devices within the network.

Types of server:

Majorly we have 3 types

1 Web server: It will process the request in the form of HTTP or https[Apache format, Ngnix]

2. Application server: The application server is used to run the application in the servers.

3. Database Server: The database server is used to store the data.

Server Scaling: Server scaling is a process of adjusting the power of computing devices like scale-up and scale-down

Typing of server scaling:

1. Horizontal scaling: Increasing the number of servers.

2. Vertical scaling