GIT:- verson control system(vcs)/source code management

Bellow are the functions of a vcs

**1.allows developers to work simultaneously.**

**2.Does not allow overwriting each others changes.**

**3.** **maintains a history of every version.**

# **The types of vcs**

# **1.centralized verson control system (cvcs)**

# 2.**distributed /decentralized verson control system**

**Git is a clint server architecture.**

**Repositorys:-group of project files to store a single area. And each project has one repository.**

**Github has ==>> n. no. of repositers….**

**Cloning:- remote reposiory (my web) to getting the local ==>> cloning===>> git clone url (each project have one url)===>>locally.**

**Centralized verson control system (cvcs):- uses a control server to store all files and enables team collaboration .**

**But the major draw back of cvcs is its single point of failure i.e., failure of the central service.**

**Dvcs:-clints not only cheack out the latest snapshots of the directory but they also fully mirror the repositorys. If the server goes down ,then the repository from any clint can be copied back to the server to restrict it . every check out is a full back up of the repositorys.**

**You require network connections only to publish your changes and take the latest changes.**

**Fork:-one giy hub to another hit hub copying a file is a fork.**

**Networking:- Data sharing one data to another data.**

**Networking is echange data.**

**LAN:- local area network**

**MAN:-metropolitan area network**

**I.P ADRESS:-INTERNET PROTOCAL ADRESS**

**IPV 4 (MANUAL) – 32 BIT**

**IPV 6(AUTOMATIC) – 128 BIT{inter protical verson}**

**HTTP – 80 {this is using for web communication}**

**HTTPS – 443**

**DNS ->Domine name system**

**This is phone book**

**CIDR -> Class less inter domine routin**

**SSH ->Secure shell (port no.22)**

**NETWORK TOPOLOGY:-**

**Star topology : star tolopogy is setup where all devices connect to a central hub or switch, resembling a star shape**

**switch:-**

**A hardware device that connects devices in a network and uses MAC addresses to forward data to the correct device.**

**Mesh topology:- Mesh topology is a type of network setup where every node (device) is connected to every other node—either directly (fully connected) or partially.**

****