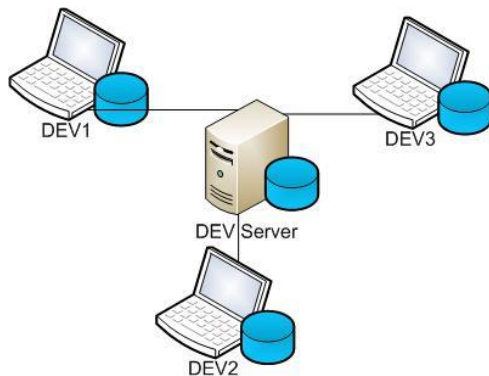


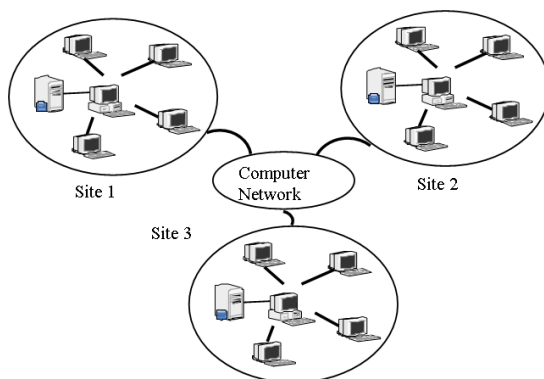
Centralised Vs. Distributed Database

1. A centralised database holds all data on a central computer such as a mainframe computer or server.



2.

3. A distributed database is a database in which portions of the database are stored on multiple computers within a network.



Advantages:

- Reliability, if one of the sites crashes, the system will keep running with the other sites.
- Speed, it is faster because the information is distribute and not packed as a whole.
- Open system, the system could connect to other networks to make it bigger and accessible everywhere.

Disadvantages:

- Networking, if there is a problem with the network, then problems may arise from using the database.
- Proper hardware and software, the database needs proper hardware and software to run properly, this is expensive to get.
- Troubleshooting, there might be connection error that could affect the use of the database by other users.

DDBMS: A distributed database management system, manages the database as if it were all stored on the same computer.

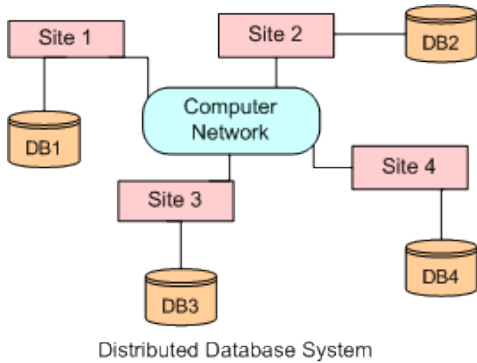


Diagram of distributed database

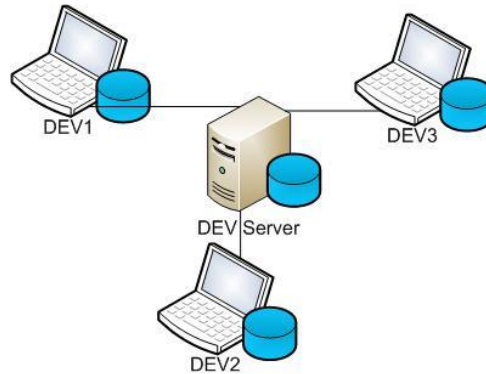


Diagram for centralized database

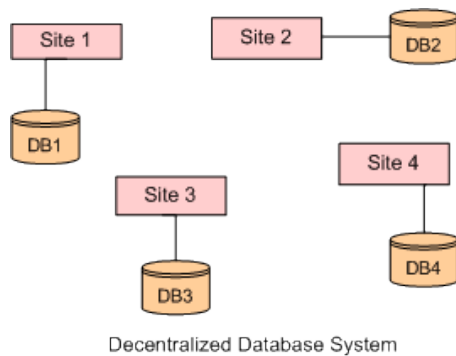


Diagram of decentralized database

The hardware used in both diagram are the same because both databases need a server and a proper network infrastructure. However centralized database have a central computer, the distributed database has several central computers, decentralized database are separated and have different central computers. DDBMS can be used for distributed database and decentralized because there should be management of the server and database.

5) Centralized Database: to access a centralized database the user must connect to the computer network which will give them access to the central computer.

Decentralized Database: from the diagram above, the user can access a specific network in a specific area.

Distributed Data: the user would have to connect to the network and they will have access to the site that is connected to the user's computer.

VPN: A virtual private network, this give a secure access for the user when they are connected to the database network.