Data Center:-

A data center is a facility that Centralizes an organization's shared IT Operations and equipment, for the purposes of storing, processing, and disseminating data and applications.

TYPES :-

1- Enterprise data Centers :-

are typically constructed and used by a single organization for their own internal purposes These are common among tech gaints..

2- Colocation data Centers :-

function as a kind of rental property. where the space and resources of a data

center are made available
to the people willing
to rent it.

3. Managed Service data Centers :-

Offer aspects such as data storage, computing and other services as a third party, serving customers directly.

4. Cloud data Centers :-

Are distributed and are sometimes offered to customers with the help of a third-party managed Services provider.

Three categories:
i- Compute
(ii)- ~~Storge~~ Storage
3- Networking.

Compute :-

The memory and processing power to run the applications, generally provided by high-end servers.

Storage :-

Important enterprise data is generally housed in a data Center, on media ranging from tape to Solid-state drivers, with multiple backups.

Networking :-

Interconnections between data center components and to the outside world, including routers, switches, application-delivery controllers, and more.

① - Star Topologies :-

is a network topologies where each individual piece of a network is attached to a central node.

② - Mesh :-

is a type of Networking where all nodes cooperate to distribute data amongst each other.

③ - Tree :-

is a topology which is having a tree structure in which all the computer are connected with the tree.

④ Ring :-

is a network topology in which each node,

connects to exactly two other nodes, forming a single continuous pathway for signals through each node.

5) Bus :-

is a specefic kind of network topology in which all of the various devices in the network are connected to a single cable or line.

6) Hybird :-

is an integration of two or more different form a resultant topology which has many advantages.

(7). **Point - to - point :-**

is the Simplest topology that connects two nodes directly together with a common link.

Ring :-

is a network Configuration where devices connection create a circular ~~datt~~ data path.