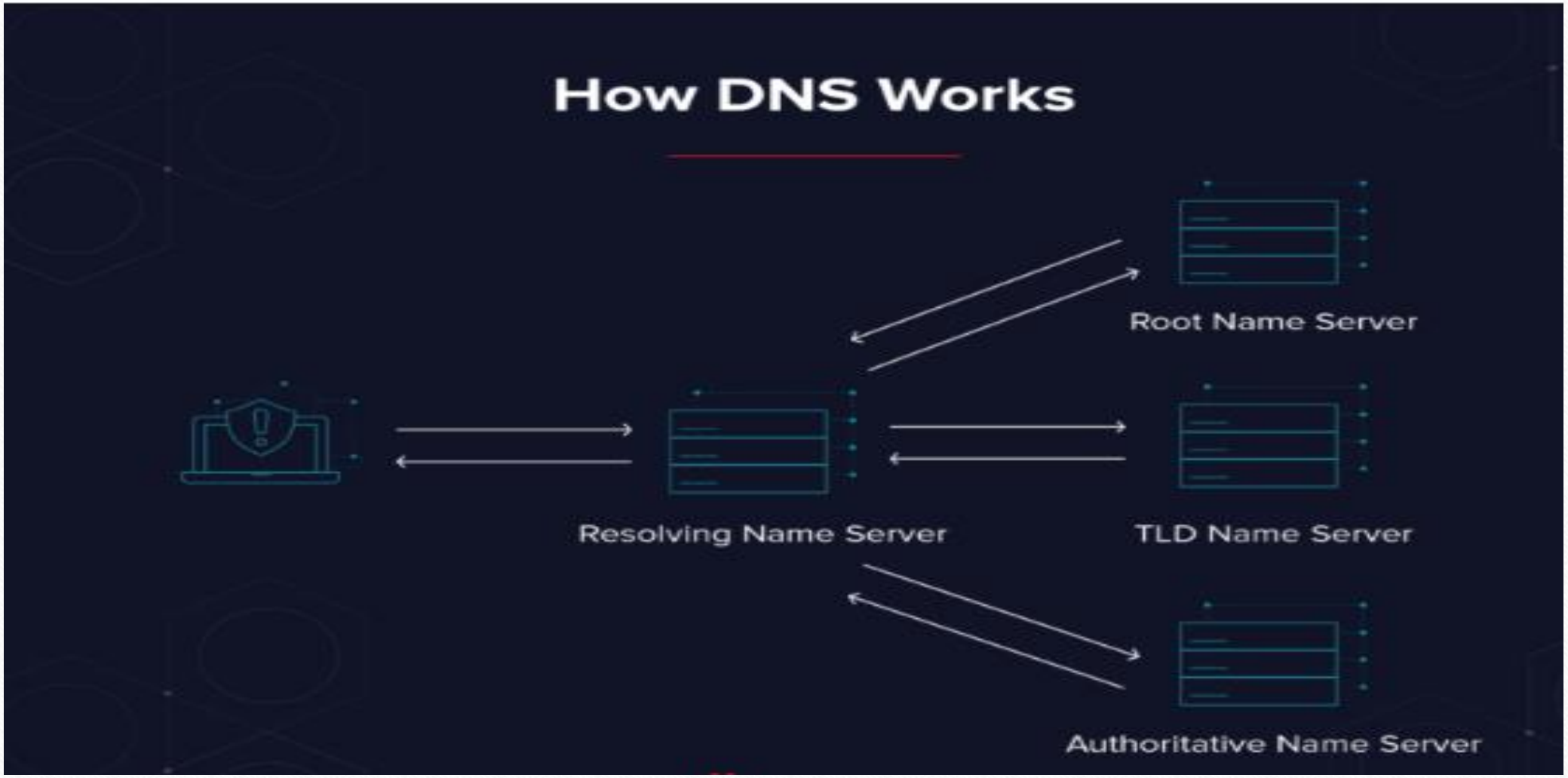
DAY 3

DNS

- STANDS FOR DOMAIN NAME SYSTEM
- IT CONVERTS NAME INTO IP ADDRESS AND vice versa


How DNS Works
Root Name Server
Resolving Name Server
TLD Name Server
Authoritative Name Server

HOW IT WORKS

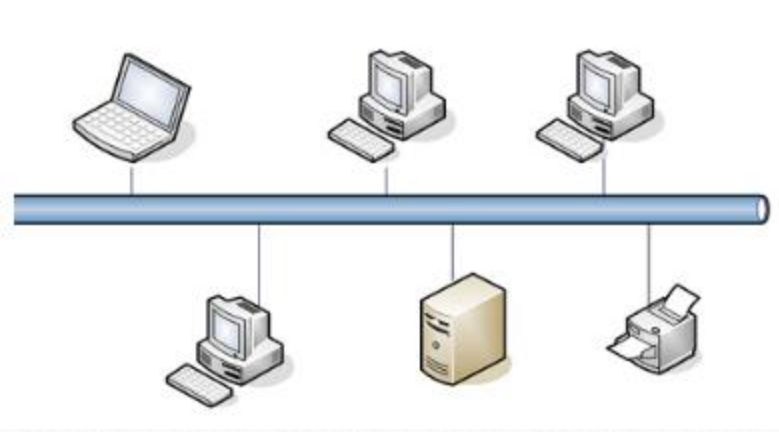
- WHEN A COMPUTER NEEDS TO REACH TO DOMAIN (LIKE GOOGLE) IT SENDS REQUESTS TO DNS RESOLVER(DNS SERVER) IF THE MAPPING IS FOUND FOR DOMAIN IN DNS CACHE, THE SERVER RETURNS THE IP ADDRESS, IF NOT
- RESOLVER REACHES TO ROOT SERVER , ROOT SERVER HOLDS INDEX OF TOPLEVEL DOMAINS , THERE ARE 13 ROOT SERVERS GLOBALLY
- TLD NAME SERVER GIVES IPADDRESS OF AUTHORATIVE NAME SERVER THAT HOLDS THE MAPPING FOR REQUESTED DOMAIN NAME
- IF AUTHORATIVE NAME SERVER HAS ACCESS TO THE REQUESTED RECORD IT WILL RETURN THE IP ADDRESS, THIS ADDRESS IS RETURN TO CLIENT THAT MADE THE ORIGINAL REQUESTS
- CLIENT NOW MAKES THE REQUESTS TO IP ADDRESS AND GET THE RESPONSE

TOPOLOGY AND TYPES

- network topology is the physical and logical arrangement of nodes and connections in a network. Nodes usually include devices such as switches, routers.
- Bus Topology.
- Ring Topology.
- Tree Topology.
- Star Topology.
- Mesh Topology.

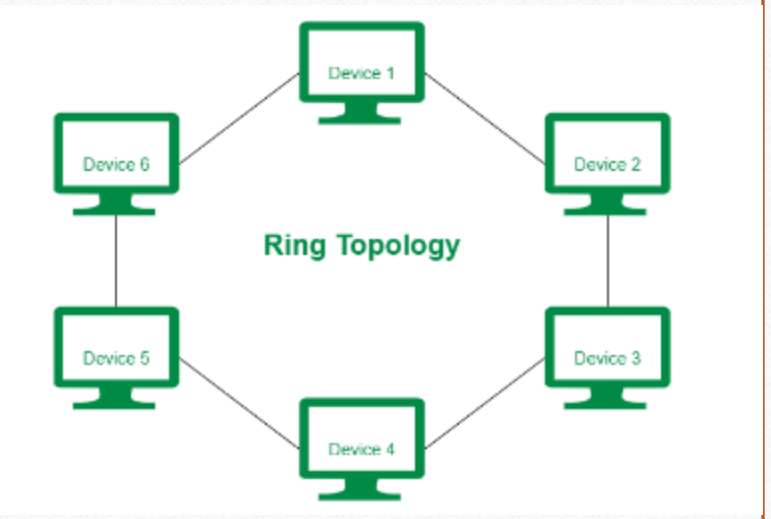
BUS TOPOLOGY

- also known as line topology,
- is **a type of network topology in which all devices in the network are connected by one central RJ-45 network cable or coaxial cable**



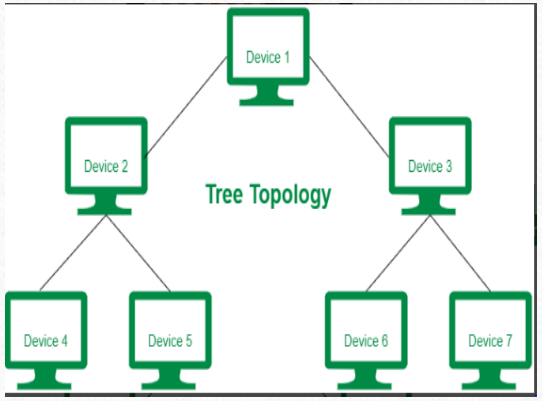
RING TOPOLOGY

- A **ring topology** is a network configuration where device connections create a circular data path.
- Each networked device is connected to two others.



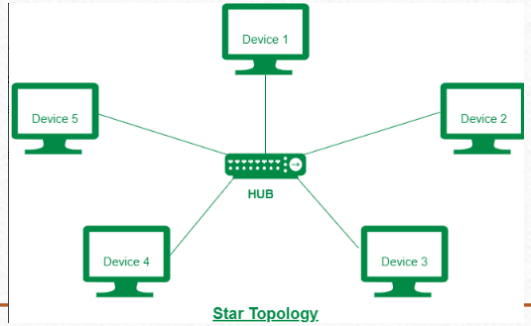
Tree Topology

- Tree topology is a type of network topology in which the devices are organized in the form of a tree. In tree topology,
- a hierarchy is formed by the branching cable having no loops that connects the root with all other nodes for communication.
- Tree topology is more expensive because it is densely wired.



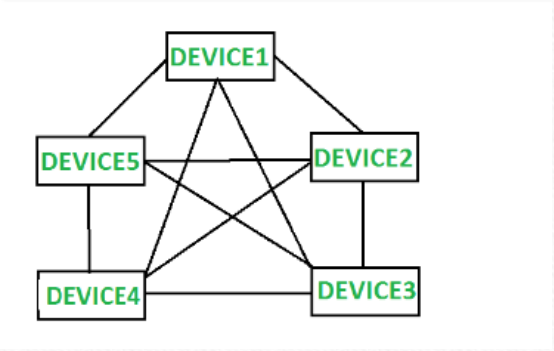
STAR TOPOLOGY

- Star topology is a type of network topology in which all the nodes are connected to the central hub or router.
- In star topology, connections are in the way that for n nodes, n number of links are needed.
- Star topology is less complex due to its simplicity. Star topology is less expensive than tree topology.



MESH TOPOLOGY

- Mesh topology is a type of network topology in which each computer is connected to every other computer in the network.
- It is the most fault-tolerant network topology as it has multiple connections.
- In a mesh topology, each computer is connected to the other computer by a point-to-point link



ASSIGNMENTS

- ADAVNTAGES AND DISADVANTAGES OF ALL TOPOLOGY
- HOW TO GET THE MAC ADDRESS OF YOUR SYSTEM

THANK YOU