**Computer Networks – LAB 2: Implementation of Network Topologies**

**Objective:**

* To explore and implement various network topologies using Cisco Packet Tracer.
* To understand the use of different network cables and their appropriate connections.
* To assign IP addresses and test connectivity within each topology.
* To document the setup and save the Packet Tracer files for future reference.

**Requirements:**

* Cisco Packet Tracer software.
* A GitHub account and a repository for lab assignments.
* Access to Google Classroom for submission

**Procedure:**

1. Open Packet Tracer:

* Launch Cisco Packet Tracer on your computer.

2. Implement a Bus Topology:

* Drag three computers onto the workspace.
* Connect them using a single backbone cable (Coaxial Cable).

3. Implement a Star Topology:

* Drag three computers and a switch onto the workspace.
* Connect each computer to the switch using straight-through Ethernet

cables.

4. Implement a Ring Topology:

* Drag three computers onto the workspace.
* Connect them in a circular manner using crossover cables.

5. Implement a Mesh Topology:

* Drag three computers onto the workspace.
* Connect each computer to every other computer using crossover cables.

6. Test Connectivity:

* For each topology, assign IP addresses to the computers.
* Use the ping command to test connectivity between all computers.

**Results:**

