LAB ASSIGNMENT-6

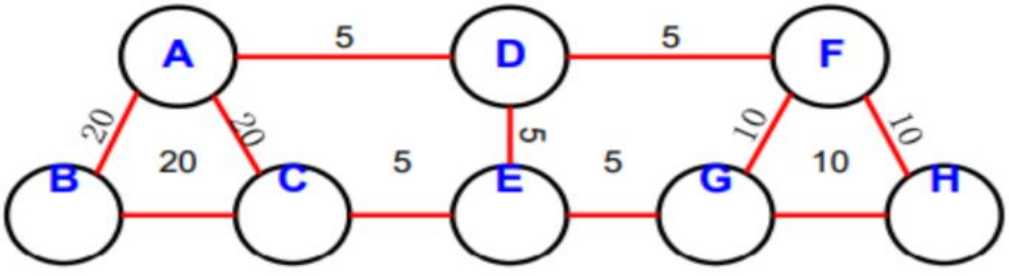
CSN-361
Computer Networks Laboratory

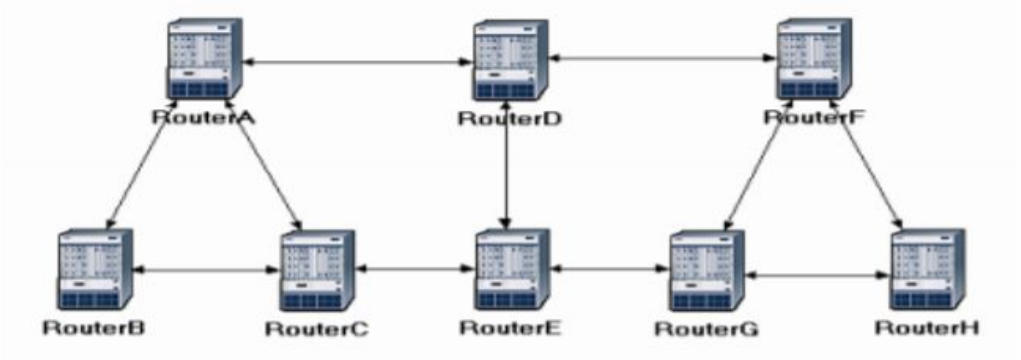
Submitted by - Prateek Mali
Enrollment no. - 17114059 (CSE)

Q-1

Scenario - 1

Use OPNET to implement OSPF (Open Shortest Path First) protocol. Create a scenario – Scenario1, of 8 routers of any type (slip8_gtwy) and configure the Network topology and the Link costs as shown in Figures below:-



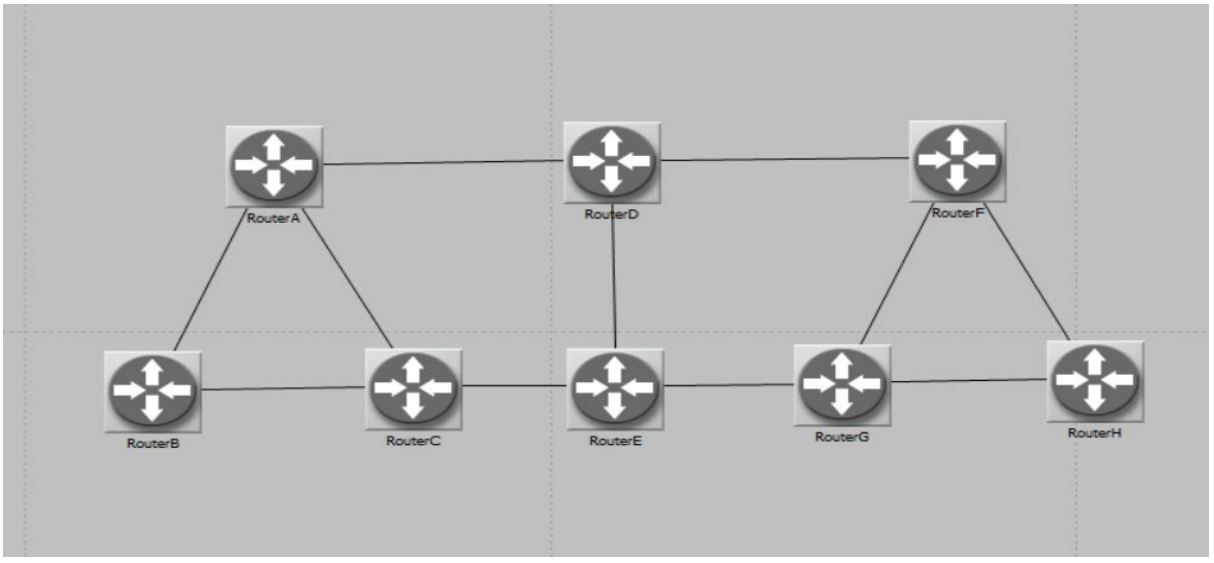


Display the route for the traffic demand between RouterA and RouterC in Scenario1.

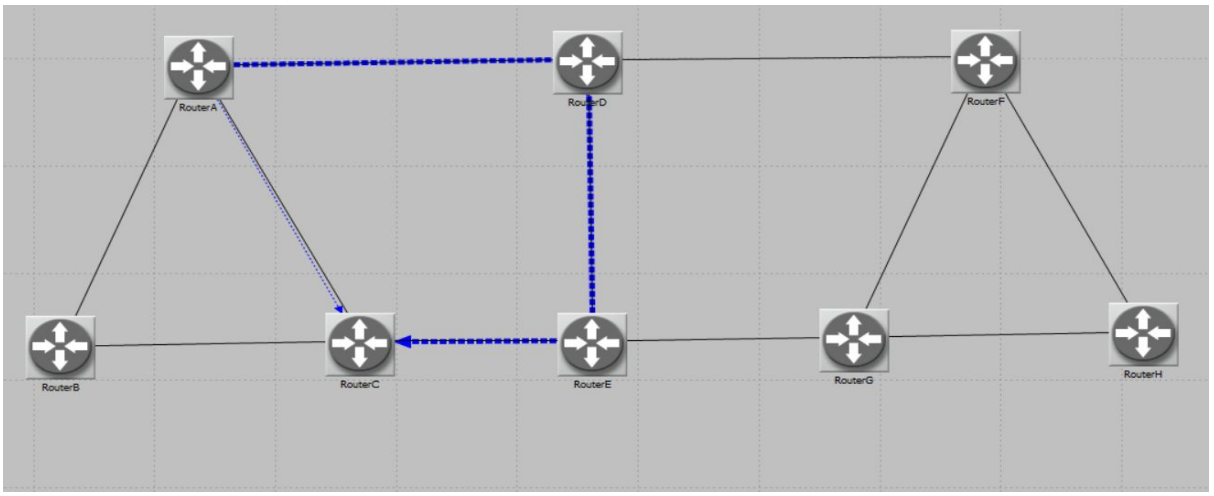
PROCEDURE

1. Create a new project.
2. Configure the network.
3. Configure the link costs.
4. Configure the traffic demands.
5. Configure the Routing Protocol and Addresses.
6. Configure the simulation.

Initial Structure



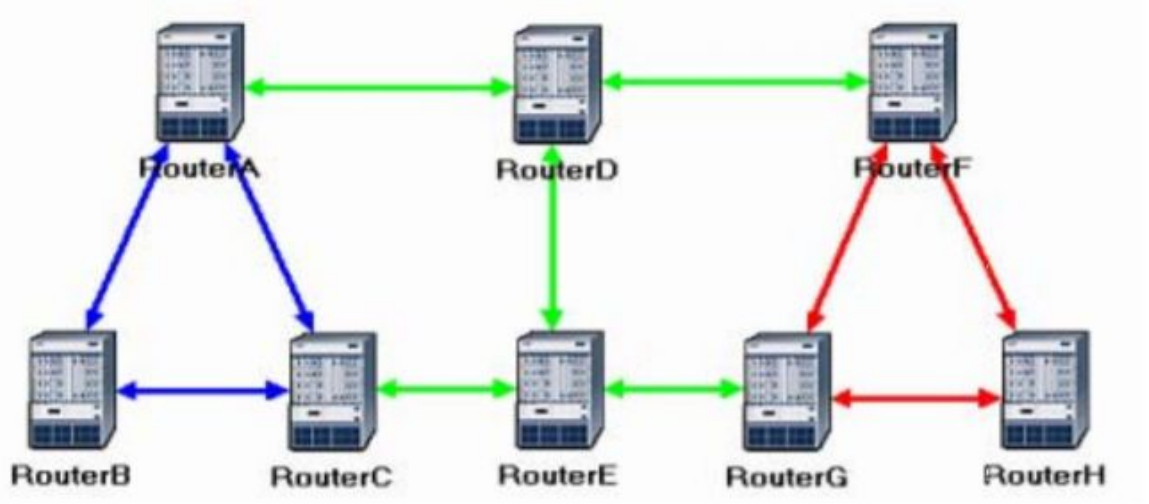
Final Structure (With Route)



Scenario - 2

Create a duplicate scenario – Scenario2, where the routers in Scenario1 are partitioned into 3 different areas as follows:

Area1: RouterA, RouterB, RouterC
Area2: RouterD, RouterE
Area3: RouterF, RouterG, RouterH

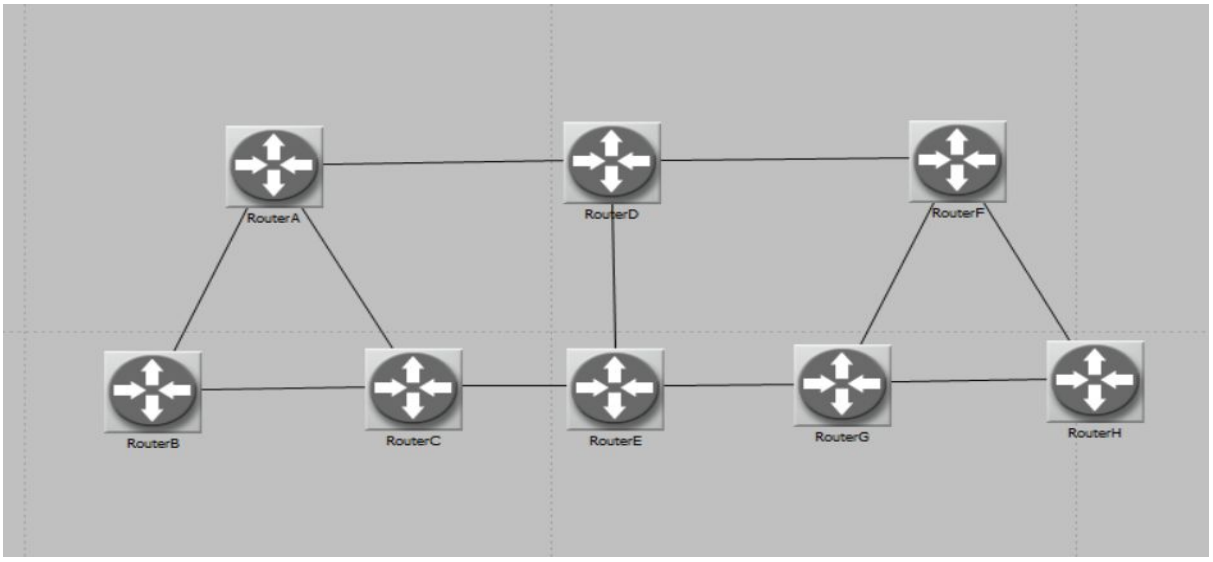


Display the route for the traffic demand between RouterA and RouterC in Scenario2.

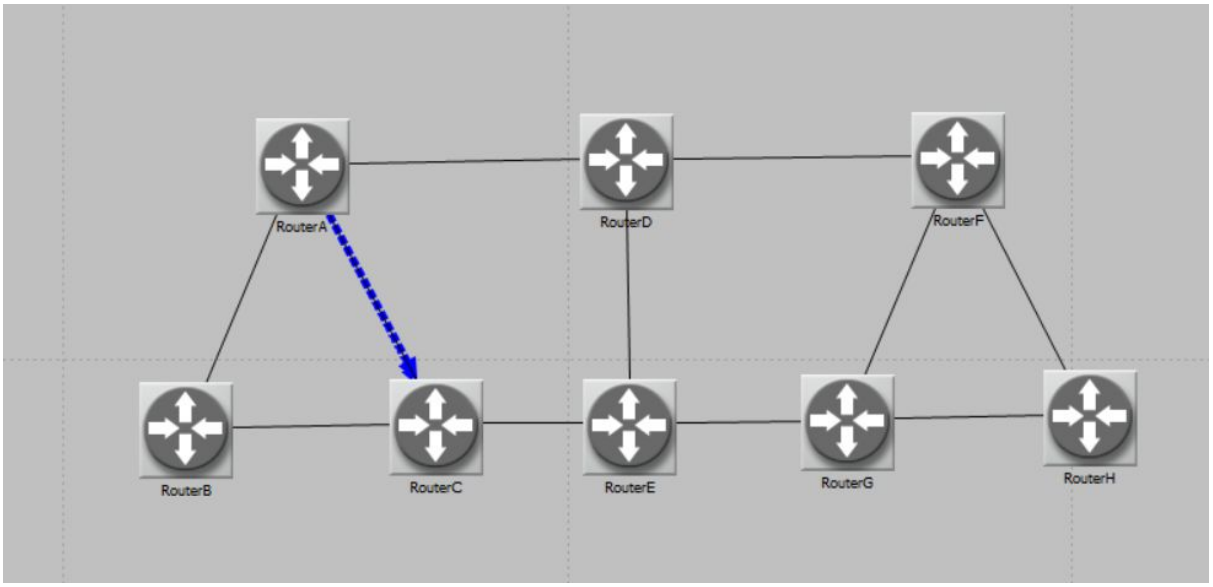
PROCEDURE

1. Duplicate the scenario-1.
2. Make changes accordingly to make areas.
3. Configure the simulation.

Initial Structure



Final Structure (With Route)



Q-2

Use OPNET to implement RIP (Routing Information Protocol) on the same network configurations as given in Problem 1.

1. Display the route for the traffic demand between RouterA and RouterC in Scenario1.

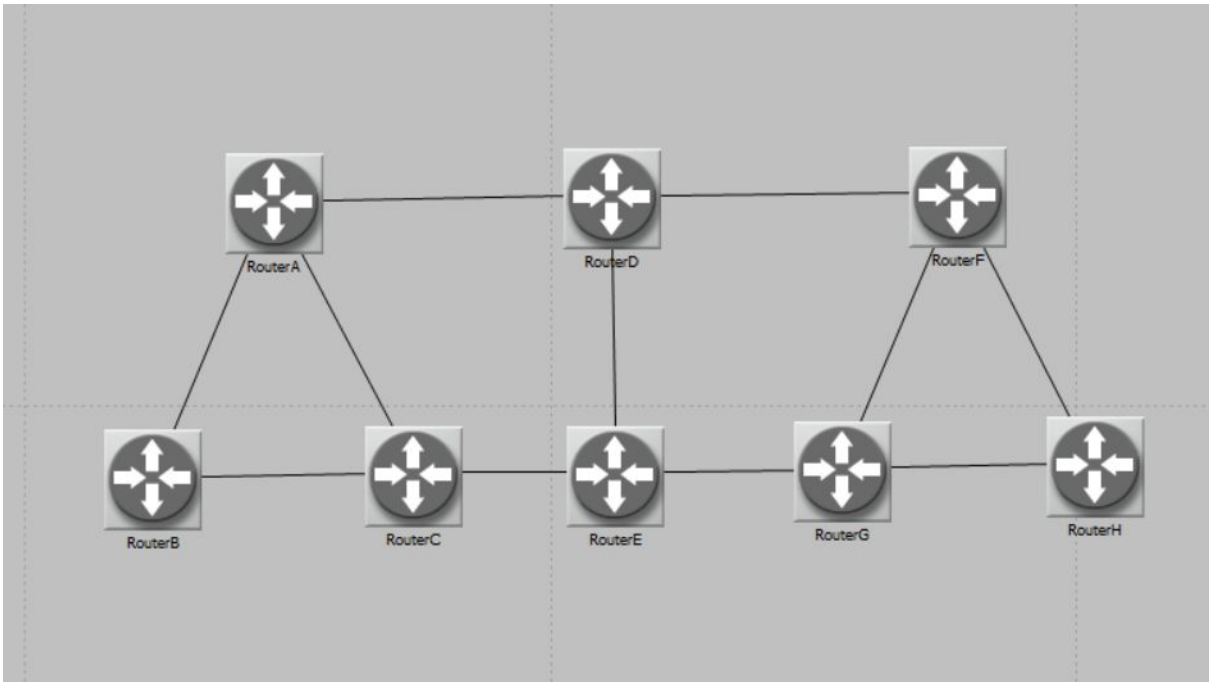
2. Display the route for the traffic demand between RouterA and RouterC in Scenario2.

PROCEDURE

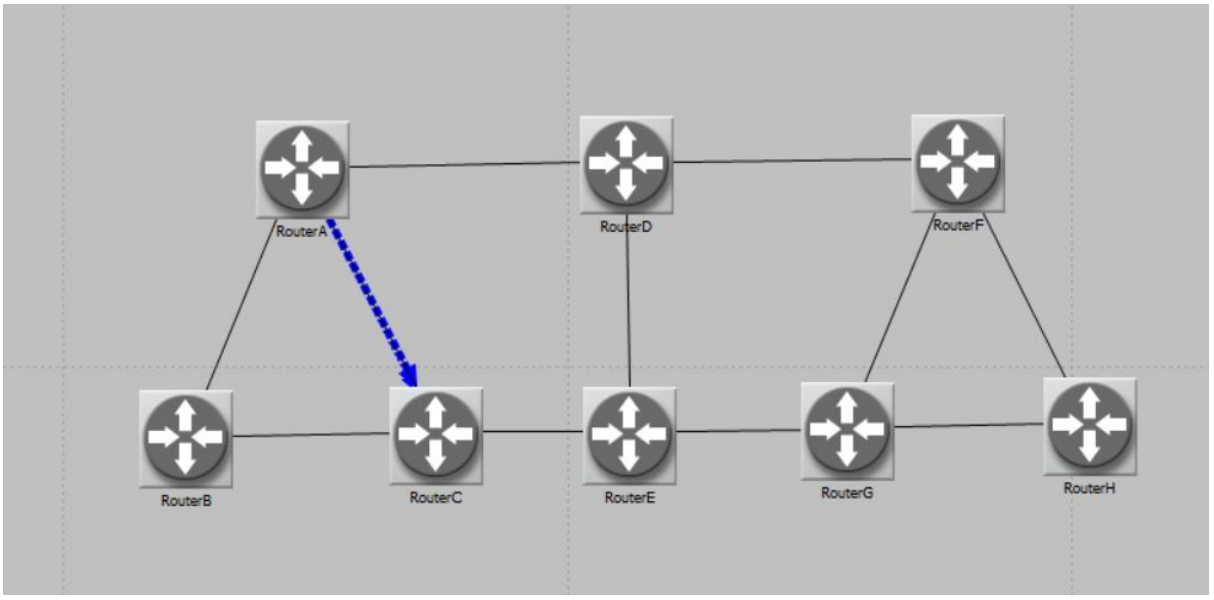
- Similar to Q-1 but using Routing Information Protocol now.

Scenario - 1

Initial Structure

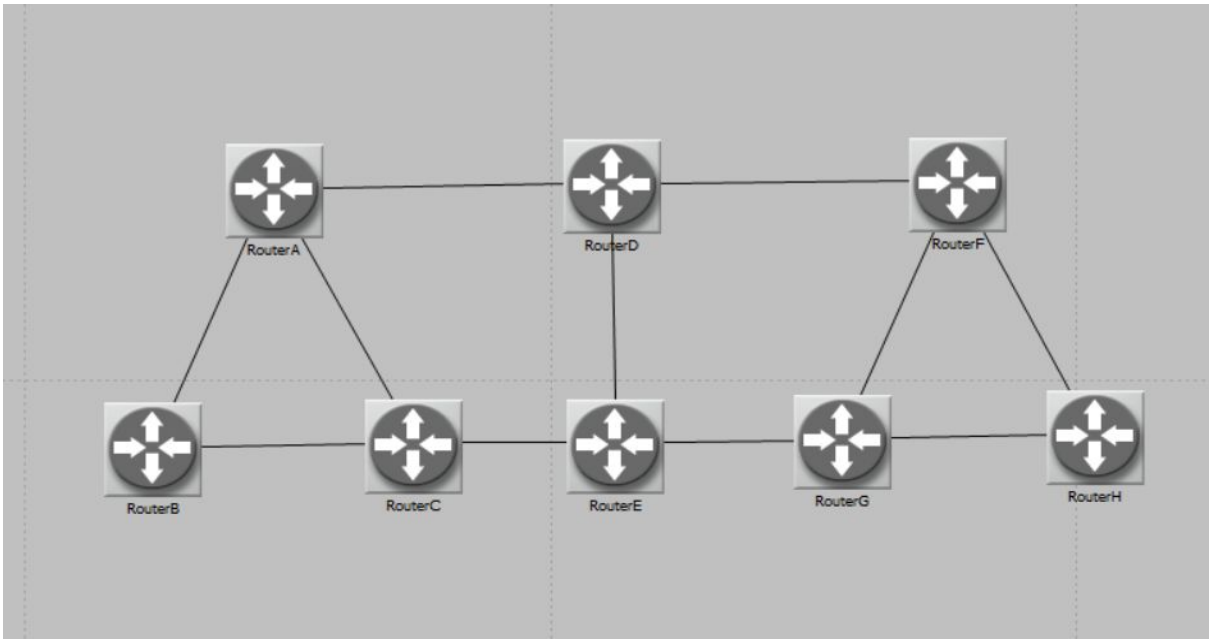


Final Structure (With Route)



Scenario - 2

Initial Structure



Final Structure (With Route)