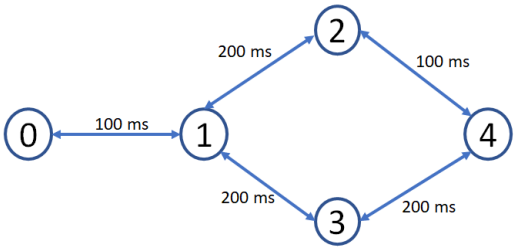
The LNM Institute of Information Technology, Jaipur
Computer Networks Lab
Lab Assignment 6

Objective: Create the network design for the below-given network topology.



Task: For the implementation, the following tasks need to be performed.

1. The name of network is "forwardingNetwork".
2. The Source node sends packets to destination node through the above network. (source and destination information are defined in omnettpp.ini).
3. Each node in the network will either accept the packet (if packet belongs to the same node) or forward the packet with the help of forwarding table implemented on each node (as defined in above diagram).
   (**Hint:** use map (http://www.cplusplus.com/reference/map/map/at/) data-structure to define the forwarding table)
4. Display delay of packet at the destination node.

Hint:

1. Use array for declaring the gates.
2. Use "connections allowunconnected" in forwardingNetwork.ned.
3. Implement forwarding table using the map data structure.
4. Node.h:
   a. include "#include <map>"
   b. "using namespace std;"
   c. Declare map: "map<int, int> LUT"

Goal:

1. The students must understand about creation of maps in OMNeT++ platform.
2. The students must demonstrate the use of delays for the channels.

Submission Instructions:

1. Submit the code, result and screenshot of the results obtained as a zip file named "rollno.zip" on Moodle for evaluation. No other forms of submission will be accepted for the evaluation.

2. Submit it by the deadline, failing which 2 marks will be deducted. Refrain from copying the answers strictly. It is to be noted that the originality of the submitted files will be checked. 1 mark will be deducted for all those answers which are the same, does not matter whether it is original or copied ones.