Computer Networks
Lab 3 Assignment

Task 1: Performance measurement of the network implemented in Lab 2: Task 2 (Stop-and-Wait ARQ)

1) Update the network infrastructure
   a. Add Hub in the network

```
[Node1]  ---  delay  ---  [Hub]  ---  delay  --- [Node2]
```

2) Update the behavioural design
   a. Send 50 packets
   b. Add a counter as state variable (Hint: TicToc-Tutorial: Step 3)
   c. Implement timer (Hint: TicToc-Tutorial: Step 8)
   d. Include processing delay (Hint: TicToc-Tutorial: Step 6)
      i. Sender side processing delay: 30% packet with Two (2) unit processing delay and rest with one (1) unit processing delay
      ii. Receiver side processing delay: 40% packet with Two (2) unit processing delay and rest with 1 unit processing delay
   e. Include packet loss (Hint: TicToc-Tutorial: Step 7)
      i. Sender side: 10% packet loss
      ii. Receiver side: 15% packet loss
   f. Retransmission of packet if packet loss (Hint: TicToc-Tutorial: Step 9)

3) Measure performance parameters
   a. Number of packets sent by each layer (Hint: TicToc-Tutorial: Step 14)
   b. Average Response time of packets
   c. An RTT of packets