**Test and Output**

Layer 3 Routing and Shortest Path:

1. Logged in into the Mininet virtual machine. Went in the project directory:*/home/mininet/rsc9044\_project*

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1. Compile the code using *ant* command.

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1. Start the SDN application. Ran following commands in two different terminals.

*java —jar FloodlightWithApps.jar -cf l3routing.prop*

*java —jar FloodlightWithApps.jar -cf shortestPathSwitching.prop*

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1. Started the Mininet network having linear topology with 5 switches using following command.

*sudo ./run\_mininet.py linear,5*

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1. Ran *pingall* to see test the reachability.

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1. Checked the connectivity status between hosts h1 and h3 using *h1 ping h3* command.

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1. Brought down the link between s1 and s2 and ran the *pingall*. 15% packet loss was observed.

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1. Link between s1 and s2 was brought up. Ran *pingall* and observed No packet loss.

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1. Repeated the above steps with tree topology with 2 switches.

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Load Balancer:

1. Initialized the load balancer using the following command:

*FloodlightWithApps.jar -cf loadbalancer.prop*

Graphical user interface, text

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1. To track the incoming TCP messages on switch s1, following command was used.

*tcpdump -v -n -I s1-eth1*

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