SDN Project1 Answer Sheet

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| **Ans:**   * 1. org.onosproject.optical-model (Optical Network Model)   org.onosproject.hostprovider (Host Location Provider)  org.onosproject.lldpprovider (LLDP Link Provider)  org.onosproject.openflow-base (OpenFlow Base Provider)  org.onosproject.openflow (OpenFlow Provider Suite)   * 1. org.onosproject.fwd (Reactive Forwarding) |
| **Ans:**  2-1 The port number is 6653 and 6633.  2-2 org.onosproject.openflow-base (OpenFlow Base Provider) |
| **Ans:**  ***Python script as below,***  **from mininet.topo import Topo**  **class Project1\_Topo\_0756823( Topo ):**  **def \_\_init\_\_( self ):**  **Topo.\_\_init\_\_( self )**  **# Add hosts**  **h1 = self.addHost( 'h1' )**  **h2 = self.addHost( 'h2' )**  **h3 = self.addHost( 'h3' )**  **h4 = self.addHost( 'h4' )**  **# Add switches**  **s1 = self.addSwitch( 's1' )**  **s2 = self.addSwitch( 's2' )**  **s3 = self.addSwitch( 's3' )**  **s4 = self.addSwitch( 's4' )**    **# Add links**  **self.addLink( s4, s1 )**  **self.addLink( s3, s1 )**  **self.addLink( s3, s2 )**  **self.addLink( s4, s2 )**  **self.addLink( h1, s1 )**  **self.addLink( h2, s1 )**  **self.addLink( h3, s2 )**  **self.addLink( h4, s2 )**  **topos = { 'topo\_0756823': Project1\_Topo\_0756823 }** |
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| **Ans:**  ***Mininet CLI as below,***  Mininet> py h1.setIP(‘192.168.0.1/24’)  Mininet> py h2.setIP(‘192.168.0.2/24’)  Mininet> py h3.setIP(‘192.168.0.3/24’)  Mininet> py h4.setIP(‘192.168.0.4/24’)    ***Python script as below,***  from mininet.topo import Topo  class Project1\_Topo\_Bonus\_0756823( Topo ):  def \_\_init\_\_( self ):  Topo.\_\_init\_\_( self )  **# Add hosts**  **h1 = self.addHost( 'h1', ip='192.168.0.1/24' )**  **h2 = self.addHost( 'h2', ip='192.168.0.2/24' )**  **h3 = self.addHost( 'h3', ip='192.168.0.3/24' )**  **h4 = self.addHost( 'h4', ip='192.168.0.4/24' )**  # Add switches  s1 = self.addSwitch( 's1' )  s2 = self.addSwitch( 's2' )  s3 = self.addSwitch( 's3' )  s4 = self.addSwitch( 's4' )    # Add links  self.addLink( s4, s1 )  self.addLink( s3, s1 )  self.addLink( s3, s2 )  self.addLink( s4, s2 )  self.addLink( h1, s1 )  self.addLink( h2, s1 )  self.addLink( h3, s2 )  self.addLink( h4, s2 )  topos = { 'topo\_bonus\_0756823': Project1\_Topo\_Bonus\_0756823 } |