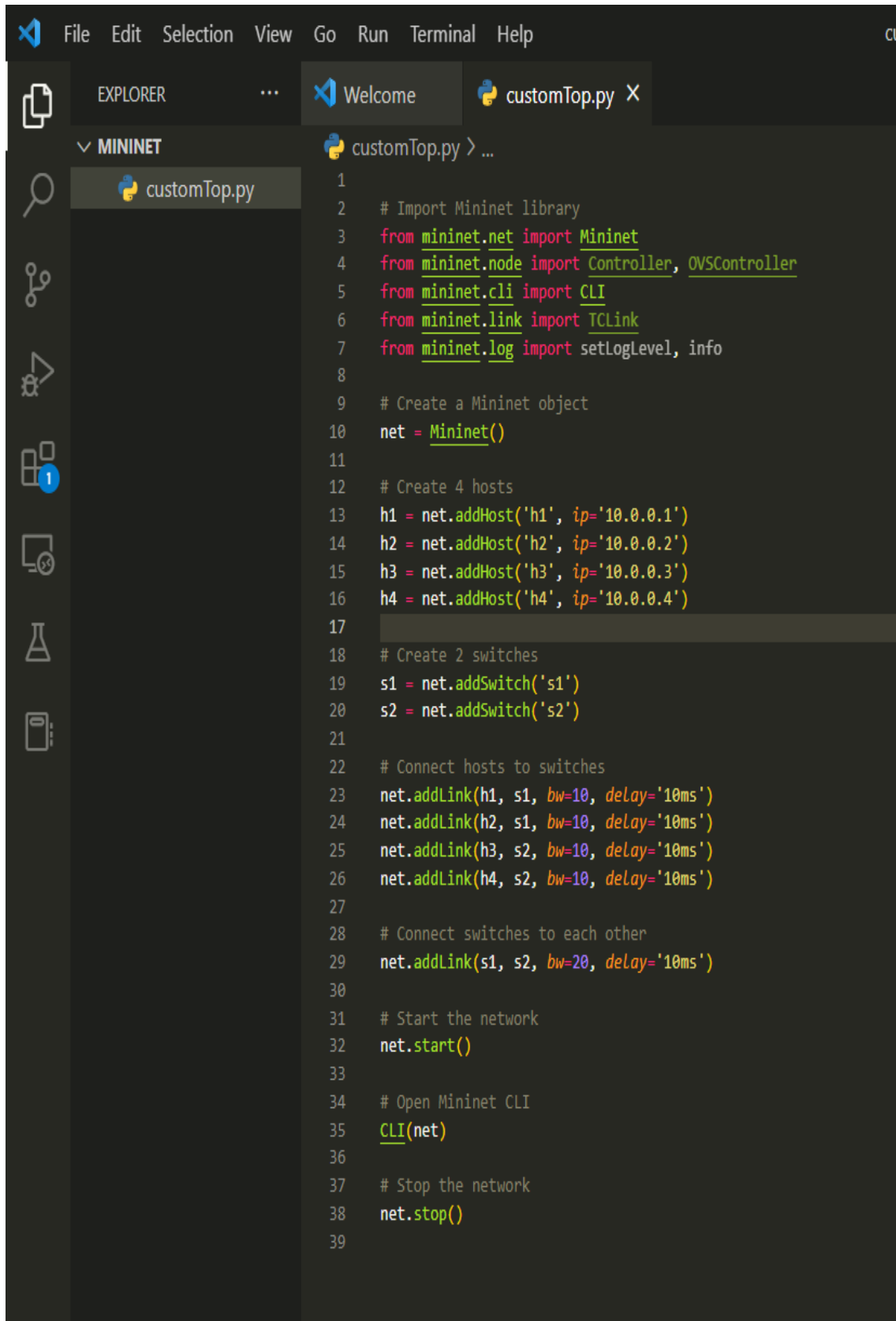


Assignment-4



The image shows a Visual Studio Code editor window with a dark theme. The Explorer sidebar on the left shows a project named 'MININET' containing a file 'customTop.py'. The main editor area displays the contents of 'customTop.py', which is a Python script for configuring a Mininet network. The script includes imports for Mininet, Controller, OVSController, CLI, TCLink, and logging. It then creates a Mininet object, adds four hosts (h1-h4) with specific IP addresses, adds two switches (s1, s2), connects the hosts to the switches, connects the switches to each other, starts the network, opens the Mininet CLI, and finally stops the network.

```
1
2 # Import Mininet library
3 from mininet.net import Mininet
4 from mininet.node import Controller, OVSController
5 from mininet.cli import CLI
6 from mininet.link import TCLink
7 from mininet.log import setLogLevel, info
8
9 # Create a Mininet object
10 net = Mininet()
11
12 # Create 4 hosts
13 h1 = net.addHost('h1', ip='10.0.0.1')
14 h2 = net.addHost('h2', ip='10.0.0.2')
15 h3 = net.addHost('h3', ip='10.0.0.3')
16 h4 = net.addHost('h4', ip='10.0.0.4')
17
18 # Create 2 switches
19 s1 = net.addSwitch('s1')
20 s2 = net.addSwitch('s2')
21
22 # Connect hosts to switches
23 net.addLink(h1, s1, bw=10, delay='10ms')
24 net.addLink(h2, s1, bw=10, delay='10ms')
25 net.addLink(h3, s2, bw=10, delay='10ms')
26 net.addLink(h4, s2, bw=10, delay='10ms')
27
28 # Connect switches to each other
29 net.addLink(s1, s2, bw=20, delay='10ms')
30
31 # Start the network
32 net.start()
33
34 # Open Mininet CLI
35 CLI(net)
36
37 # Stop the network
38 net.stop()
39
```



```
Ubuntu1 [Running] - Oracle VM VirtualBox
Feb 7 15:22
root@Ubuntu1: ~
root@Ubuntu1: /
csg4787@Ubuntu1: ~/Desktop/Networking
root@Ubuntu1: ~

c0 h1 h2 s1
mininet> net=mininet()
h1 h1-eth0:s1-eth1
h2 h2-eth0:s1-eth2
s1 lo: s1-eth1:h1-eth0 s1-eth2:h2-eth0
c0
mininet> h1 = net.addHost( 'h1' )
bash: syntax error near unexpected token '('
mininet> net.addHost( 'h1' )
h1 h1-eth0:s1-eth1
h2 h2-eth0:s1-eth2
s1 lo: s1-eth1:h1-eth0 s1-eth2:h2-eth0
c0
mininet> net.addHost( 'h3' )
h1 h1-eth0:s1-eth1
h2 h2-eth0:s1-eth2
s1 lo: s1-eth1:h1-eth0 s1-eth2:h2-eth0
c0
mininet> nodes
available nodes are:
c0 h1 h2 s1
mininet> nodes.addHost( 'h1' )
available nodes are:
c0 h1 h2 s1
mininet> self.addHost( 'h3' )
*** Unknown command: self.addHost( 'h3' )
mininet> py net.addHost( 'h3' )
<Host h3: pld=4741>
mininet> nodes
available nodes are:
c0 h1 h2 h3 s1
mininet> py net.addHost( 'h4' )
<Host h4: pld=4707>
mininet> py net.addSwitch( 's2' )
<OVSSwitch s2: lo:127.0.0.1 pld=4798>
mininet> nodes
available nodes are:
c0 h1 h2 h3 h4 s1 s2
mininet> py net.addLink( h1, s1, bw=10, delay='10ms' )
<mininet.link.Link object at 0x7f29cee92850>
mininet> py net.addLink( h2, s1, bw=10, delay='10ms' )
<mininet.link.Link object at 0x7f29cee92890>
mininet> py net.addLink( h3, s2, bw=10, delay='10ms' )
<mininet.link.Link object at 0x7f29cee92ad0>
mininet> py net.addLink( h4, s2, bw=10, delay='10ms' )
<mininet.link.Link object at 0x7f29cee92c50>
mininet> py net.addLink( s1, s2, bw=20, delay='20ms' )
<mininet.link.Link object at 0x7f29cee92d00>
mininet> nodes
available nodes are:
c0 h1 h2 h3 h4 s1 s2
mininet> py net.addLink( s1, s2, bw=20, delay='10ms' )
```