New York University
Computer Science
Department
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Course Title: Data Communications & Networks
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Instructor: Jean-Claude Franchitti
Session: 12

Assignment 8: Final Project Support Documentation

Running Mininet

1. Login into the VM, open a terminal and navigate to the openflow/ directory. Run the "ant" command to build the project. The FloodlightWithApps.jar file should be generated:

```
mininet@mininet-VirtualBox:~$ ls
floodlight-plus  openflow  workspace
mininet@mininet-VirtualBox:~$ cd openflow/
mininet@mininet-VirtualBox:~/openflow$ ant
Buildfile: /home/mininet/openflow/build.xml

init:

floodlight:

init:

compile:

dist:
      [jar] Building jar: /home/mininet/openflow/floodlight-plus/target/floodlight.jar

compile:

dist:
      [jar] Building jar: /home/mininet/openflow/FloodlightWithApps.jar

BUILD SUCCESSFUL
Total time: 13 seconds
mininet@mininet-VirtualBox:~/openflow$ ls
arpserver.prop  build.xml       FloodlightWithApps.jar  run_mininet.py             src     webserver.py
bin             floodlight-plus  README.md               shortestPathSwitching.prop  SyncDB
mininet@mininet-VirtualBox:~/openflow$
```

2. To start Floodlight, run the command: "java -jar FloodlightWithApps.jar -cf loadbalancer.prop":

```
19:16:52.583 INFO [n.f.c.i.OFChannelHandler:New I/O server worker #2-2] New switch connection from /127.0.
19:16:52.658 INFO [n.f.c.i.OFChannelHandler:New I/O server worker #2-2] Switch OFSwitchBase [/127.0.0.1:56
0:00:00:00:00:00:00:01]] bound to class class net.floodlightcontroller.core.internal.OFSwitchImpl, writeTh
se, description OFDescriptionStatistics [Vendor: Nicira, Inc., Model: Open vSwitch, Make: None, Version: 2
 None]
19:16:52.663 INFO [n.f.c.OFSwitchBase:New I/O server worker #2-2] Clearing all flows on switch OFSwitchBas
0.1:56872 DPID[00:00:00:00:00:00:00:01]]
19:16:52.667 WARN [n.f.c.i.C.s.notification:main] Switch 00:00:00:00:00:00:00:01 connected.
```

3. Open a second terminal and navigate to the openflow/ directory. To start mininet, use the command "sudo ./run_mininet,py single,3":

```
mininet@mininet-VirtualBox:~$ ls
floodlight-plus  openflow  workspace
mininet@mininet-VirtualBox:~$ cd openflow/
mininet@mininet-VirtualBox:~/openflow$ sudo ./run_mininet.py single,3
[sudo] password for mininet:
*** Creating network
*** Adding controller
*** Adding hosts:
h1 h2 h3
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1) (h3, s1)
*** Configuring hosts
h1 h2 h3
*** Starting controller
*** Starting 1 switches
s1
*** ARPing from host h1
*** Starting SimpleHTTPServer on host h1
*** ARPing from host h2
*** Starting SimpleHTTPServer on host h2
*** ARPing from host h3
*** Starting SimpleHTTPServer on host h3
*** Starting CLI:
mininet>
```