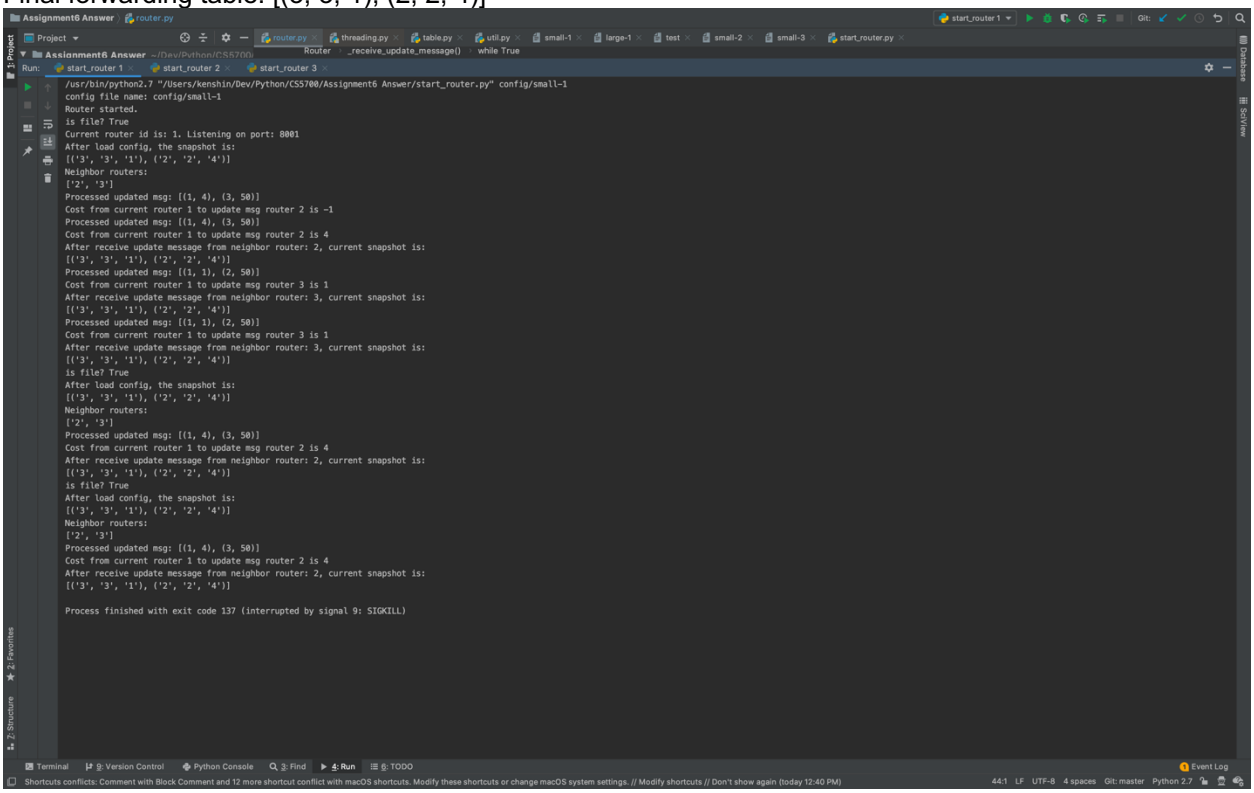
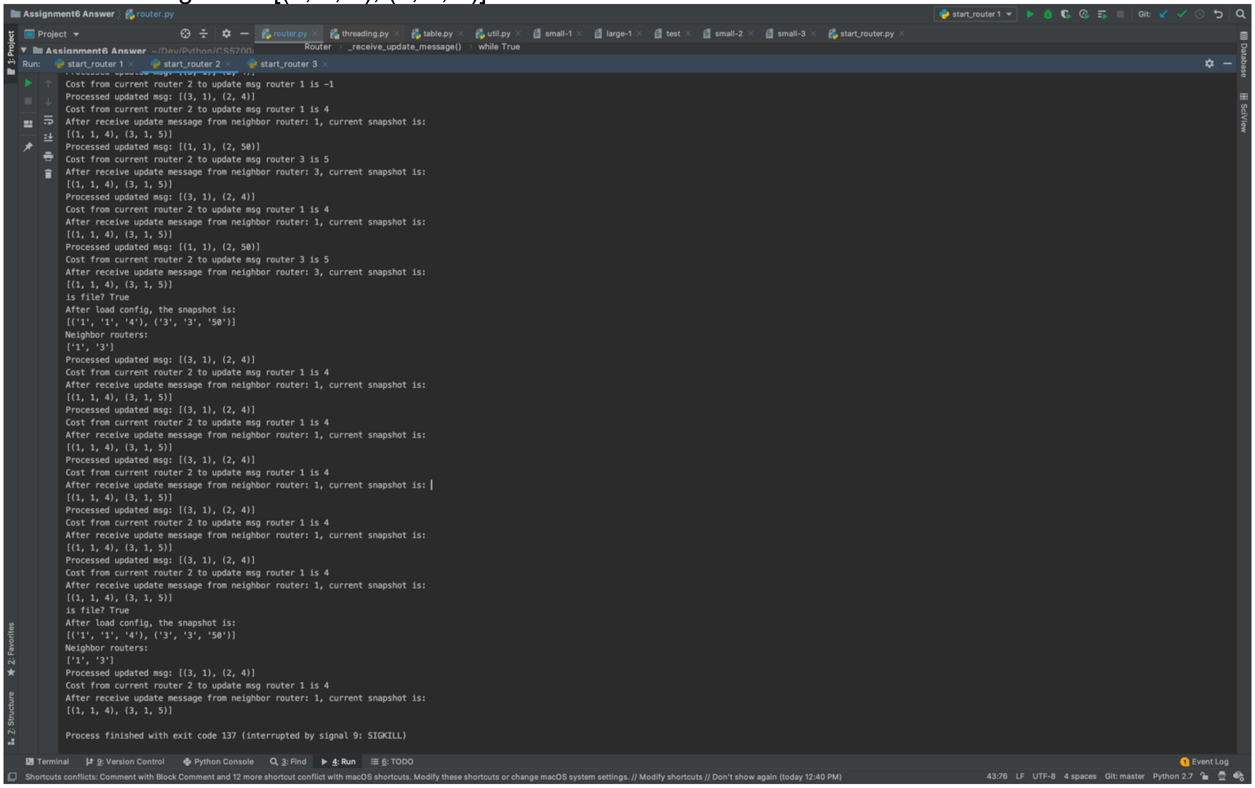
Case 1: Small Network

Case 1-1:
Start 3 router processes with these config files and make screenshots of your forwarding table information to show me they computed the correct shortest path and next hop information.

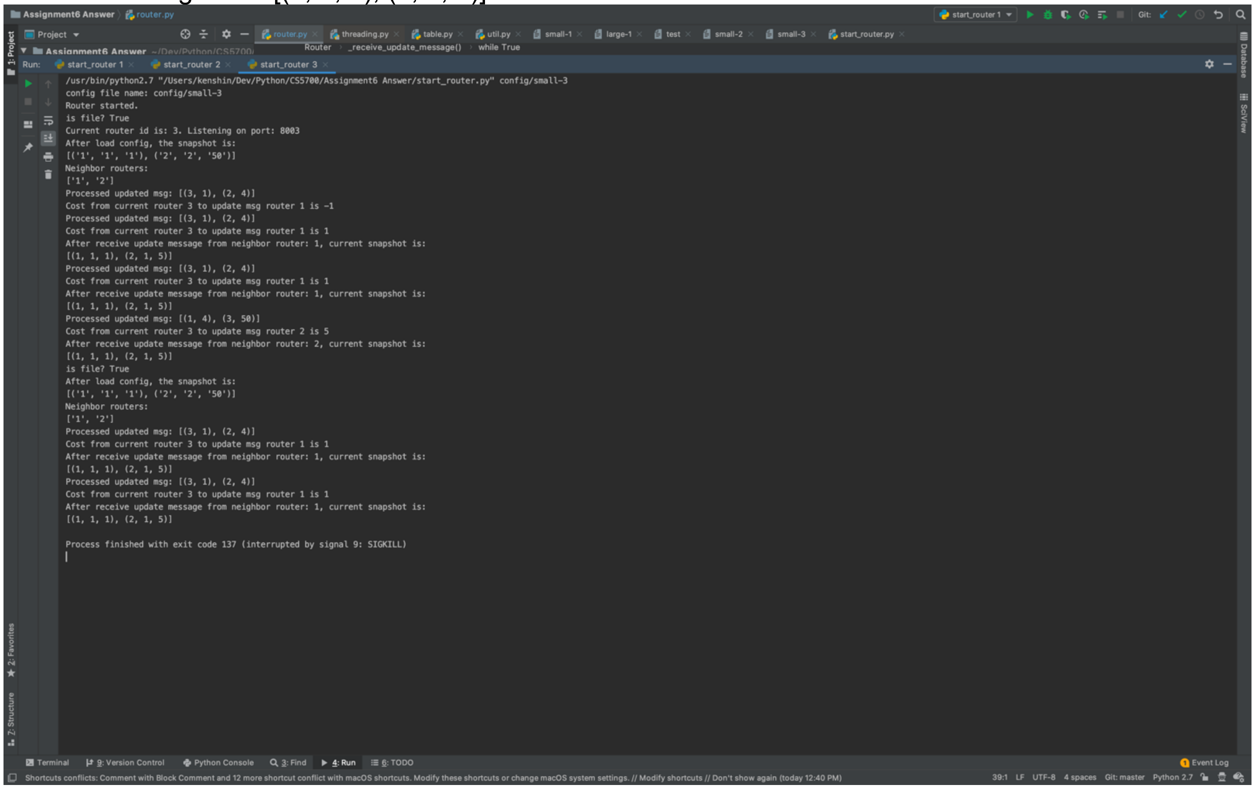
Router 1
Final forwarding table: [(3, 3, 1), (2, 2, 4)]



Router 2
Final forwarding table: [(1, 1, 4), (3, 1, 5)]



Router 3
Final forwarding table: [(1, 1, 1), (2, 1, 5)]

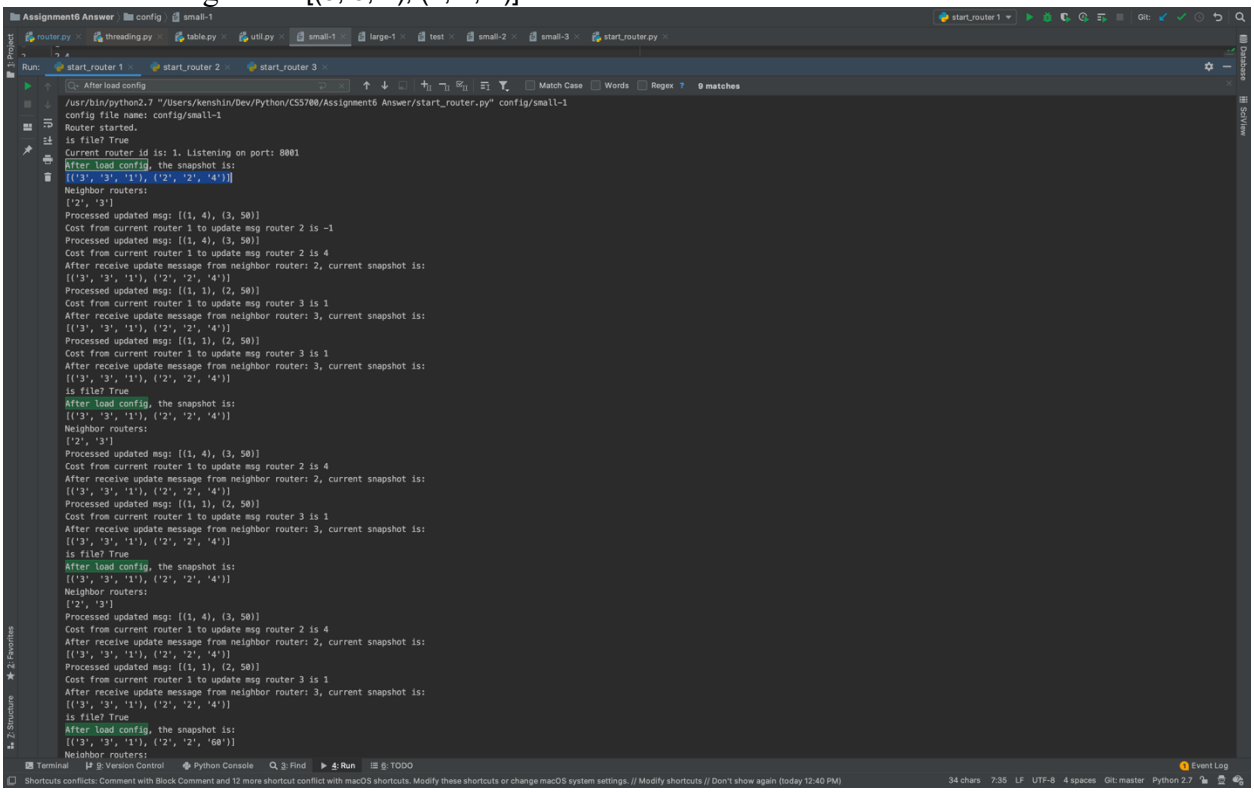


Case 1-2:

We will also take a look at the ‘Count-To-Infinity’ problem. After all routers converge to the right shortest path, update link cost of (1,2) from 4 to 60 in `config/small-1`, and show me screenshots of your forwarding table changes that illustrate this problem. And after all routers converge to the right shortest path, update link cost of (1,2) from 60 back to 4, and show me screenshots of your forwarding table changes. Do you see convergent time difference between “good information” and “bad information”?

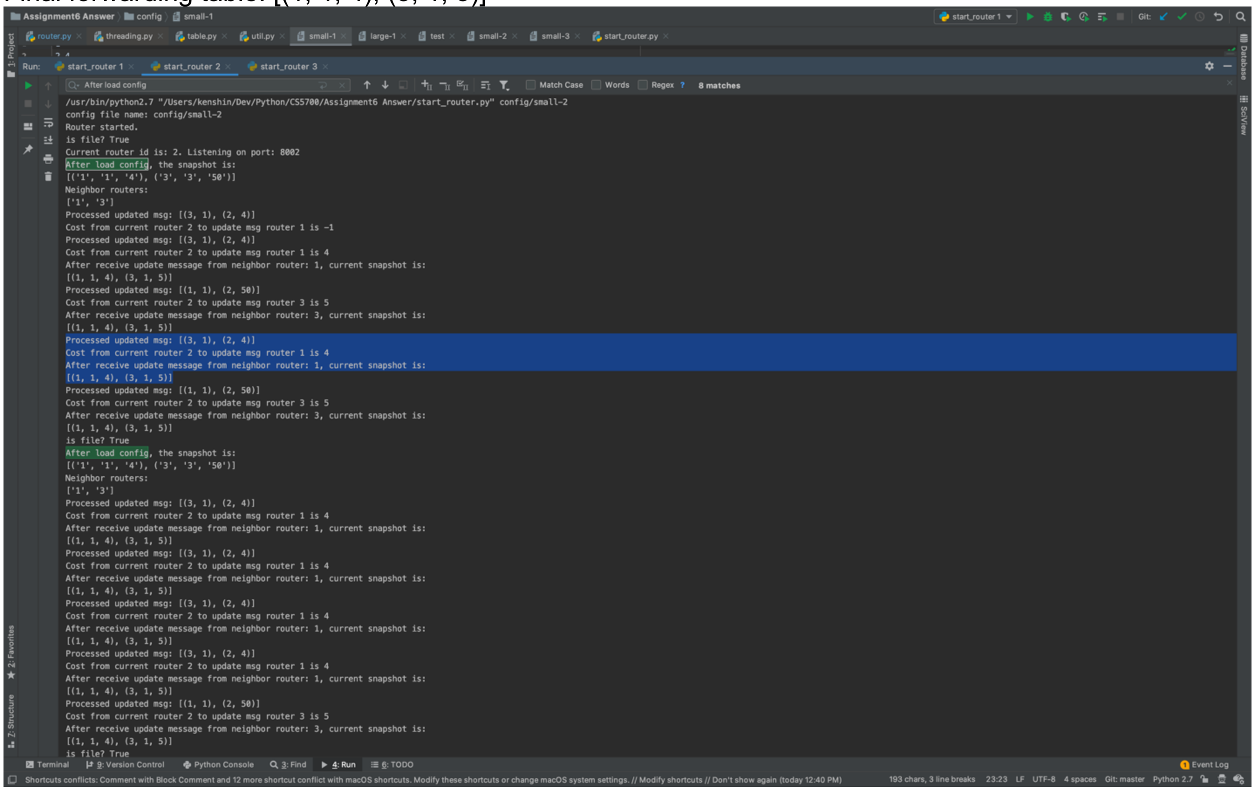
Router1 with config file: [1, (2, 4), (3,1)]

Final forwarding table: [(3, 3, 1), (2, 2, 4)]



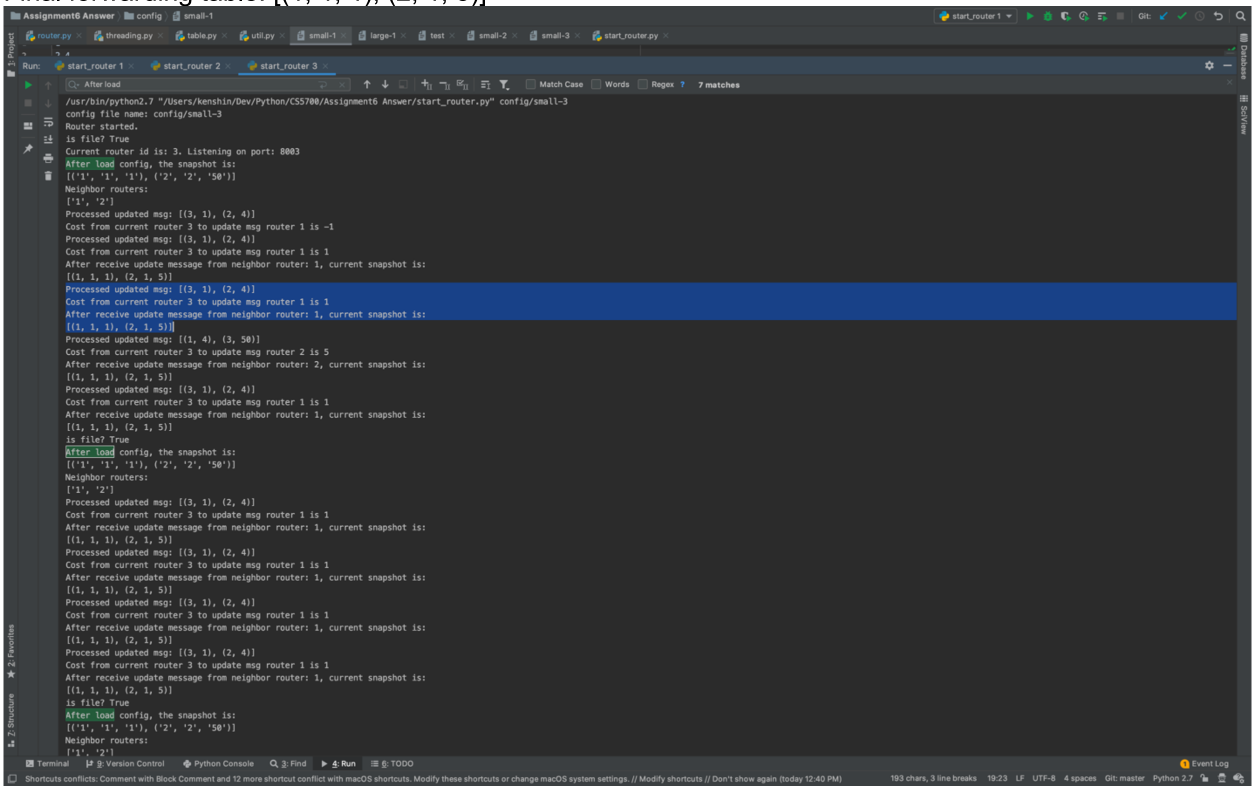
Router2

Final forwarding table: [(1, 1, 4), (3, 1, 5)]

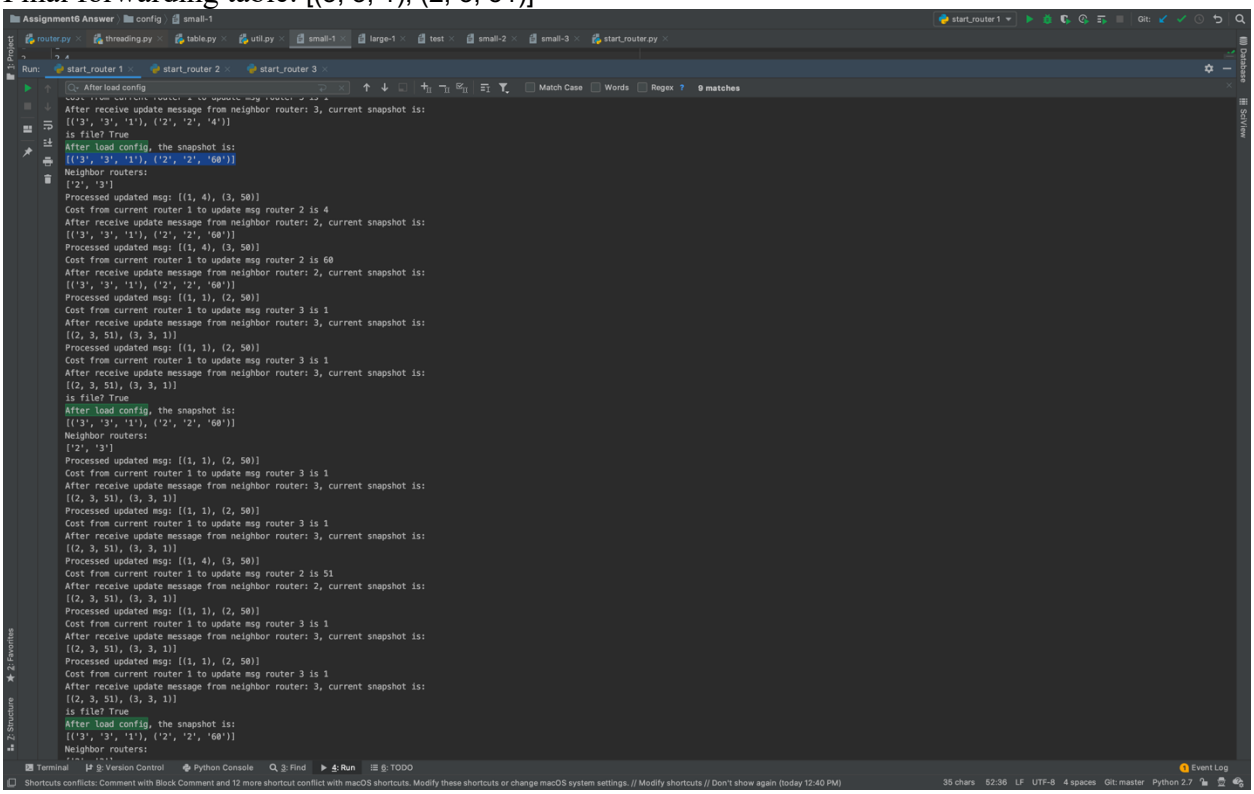


Router 3

Final forwarding table: [(1, 1, 1), (2, 1, 5)]

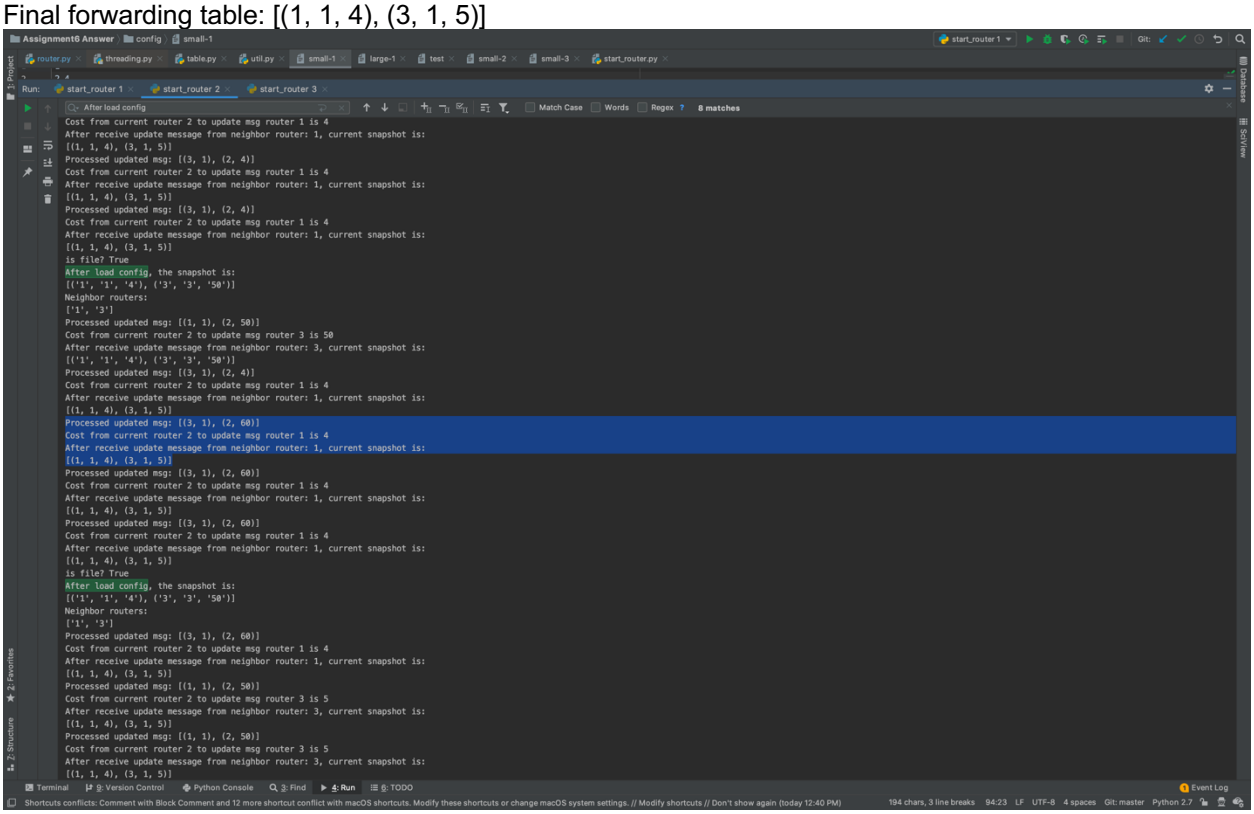


Not stop the program, just change Router1 with config file: [1, (2, 60), (3,1)]
Router1
Final forwarding table: [(3, 3, 1), (2, 3, 51)]

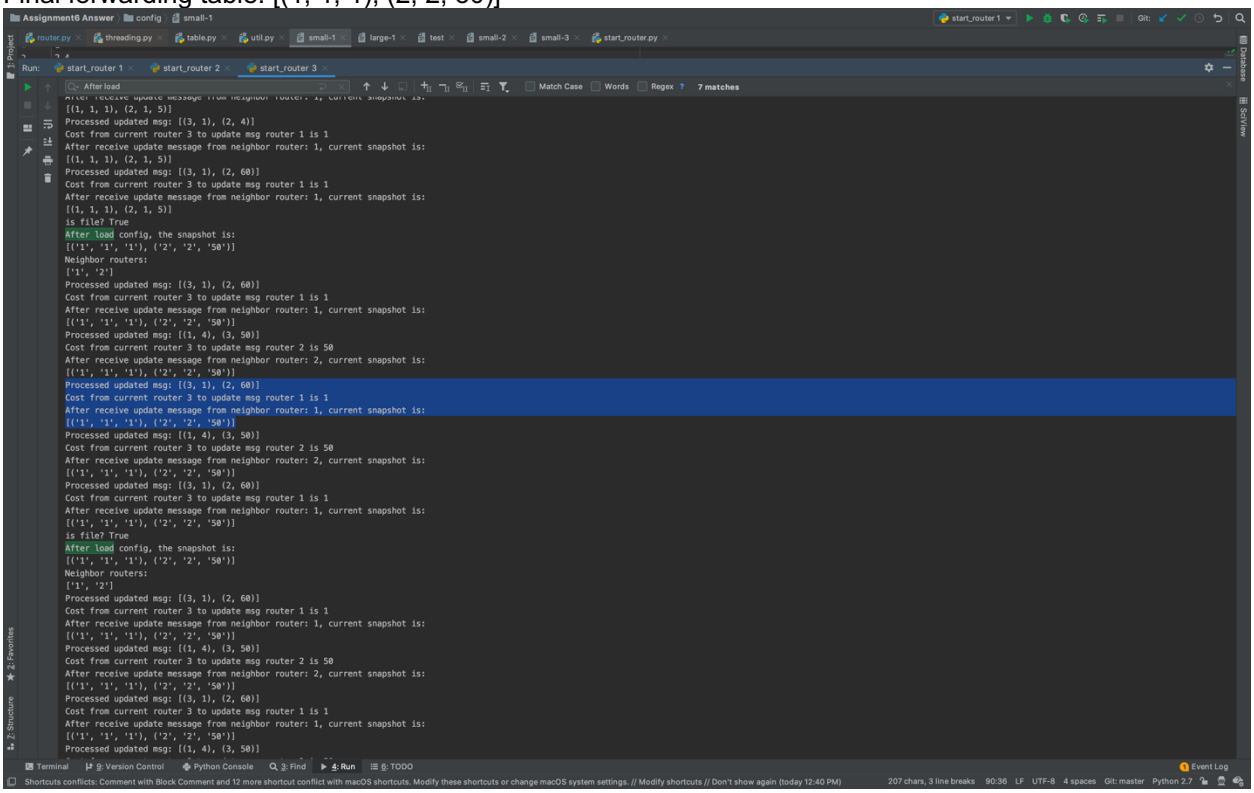


Router2

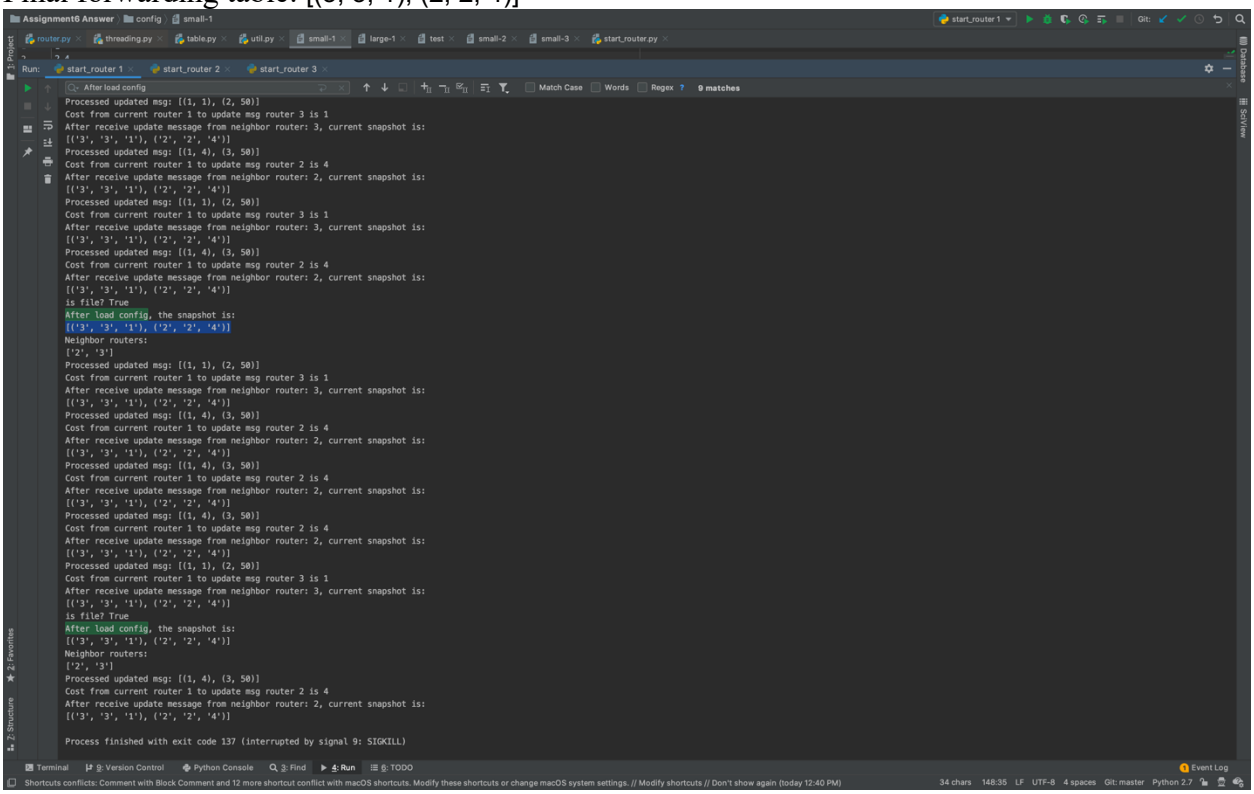
Final forwarding table: [(1, 1, 4), (3, 1, 5)]



Router 3
Final forwarding table: [(1, 1, 1), (2, 2, 50)]

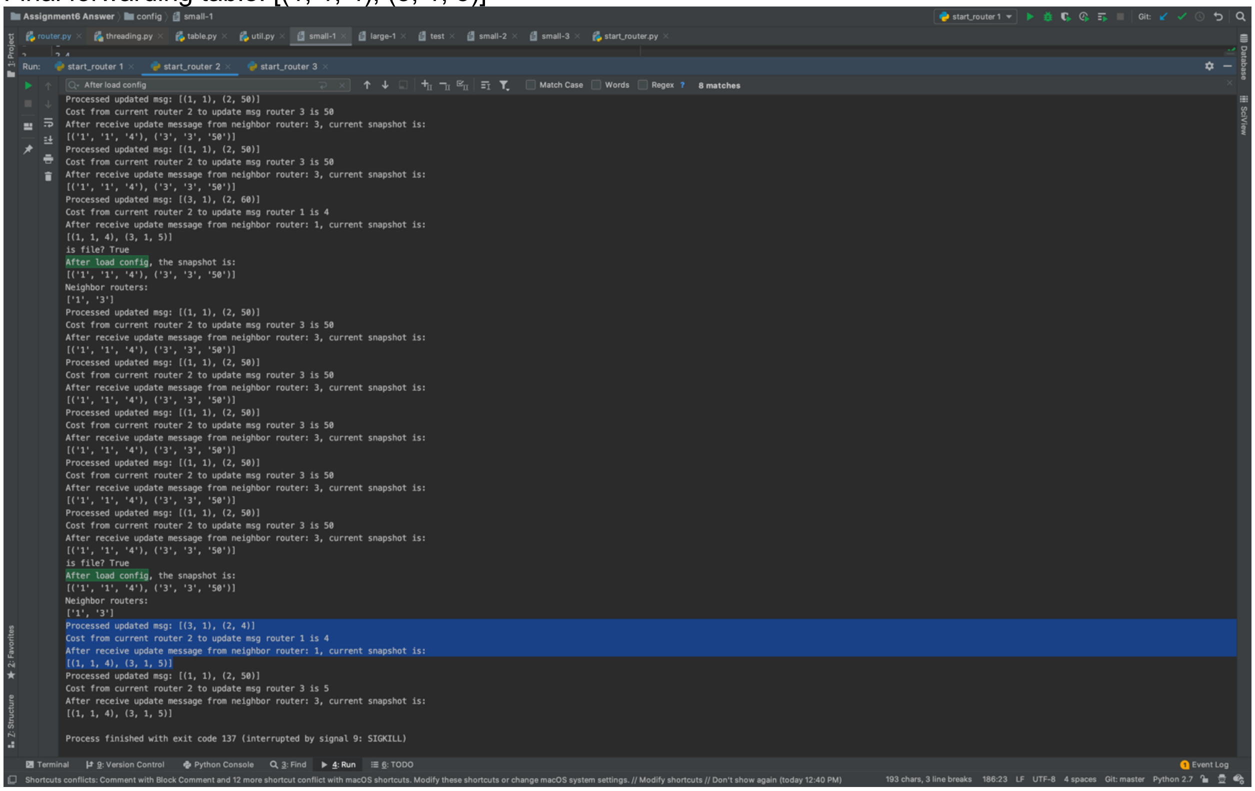


Not stop the program, just change Router1 with config file: [1, (2, 4), (3,1)]
Router1
Final forwarding table: [(3, 3, 1), (2, 2, 4)]

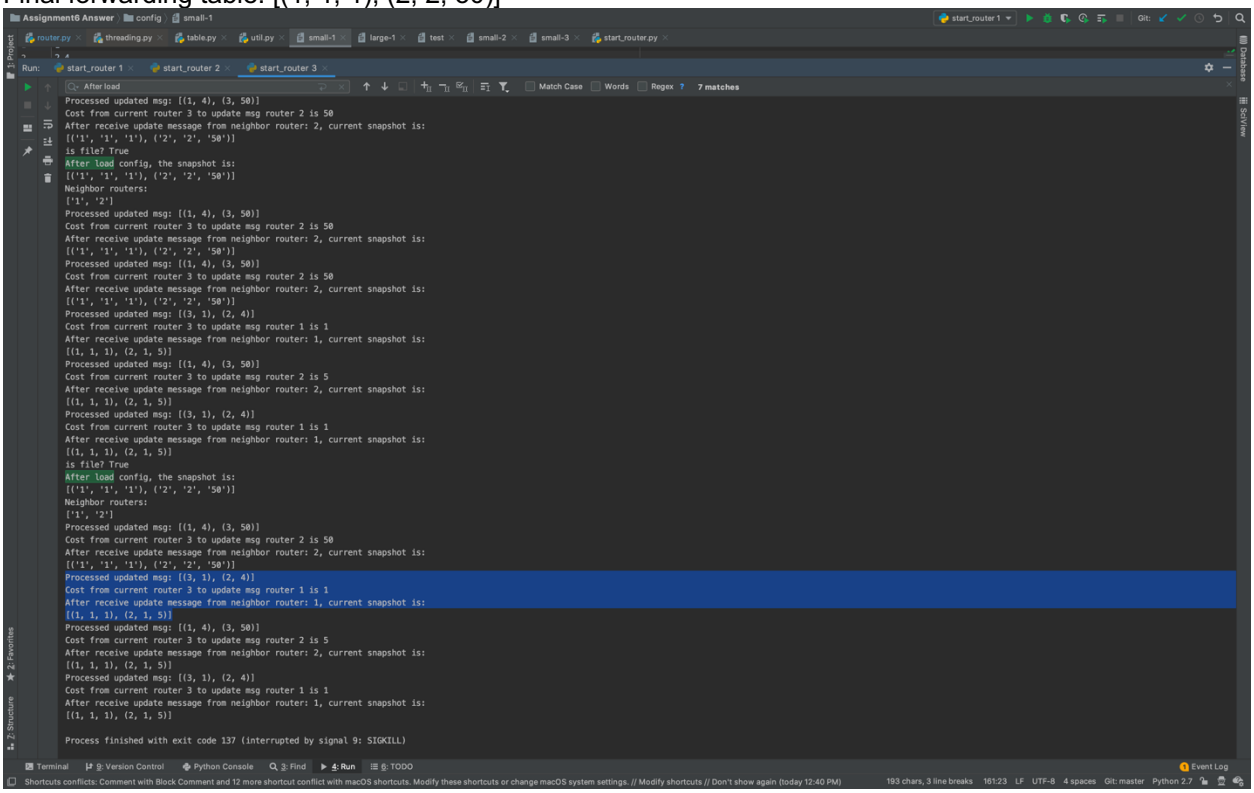


Router2

Final forwarding table: [(1, 1, 4), (3, 1, 5)]



Router 3
Final forwarding table: [(1, 1, 1), (2, 2, 50)]



Case 2: Large Network
Router6
Final forwarding table: [(11, 12), (2, 5, 13), (5, 5, 7)]
Through this we could know the Router6 find a new path to reach Router2 with next_hop Router5.