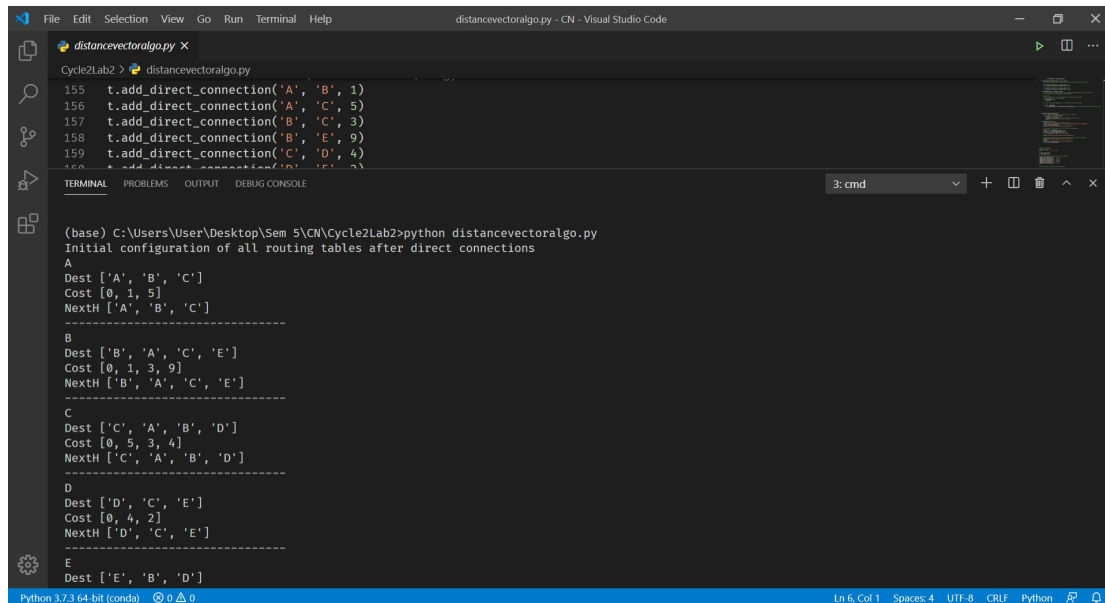


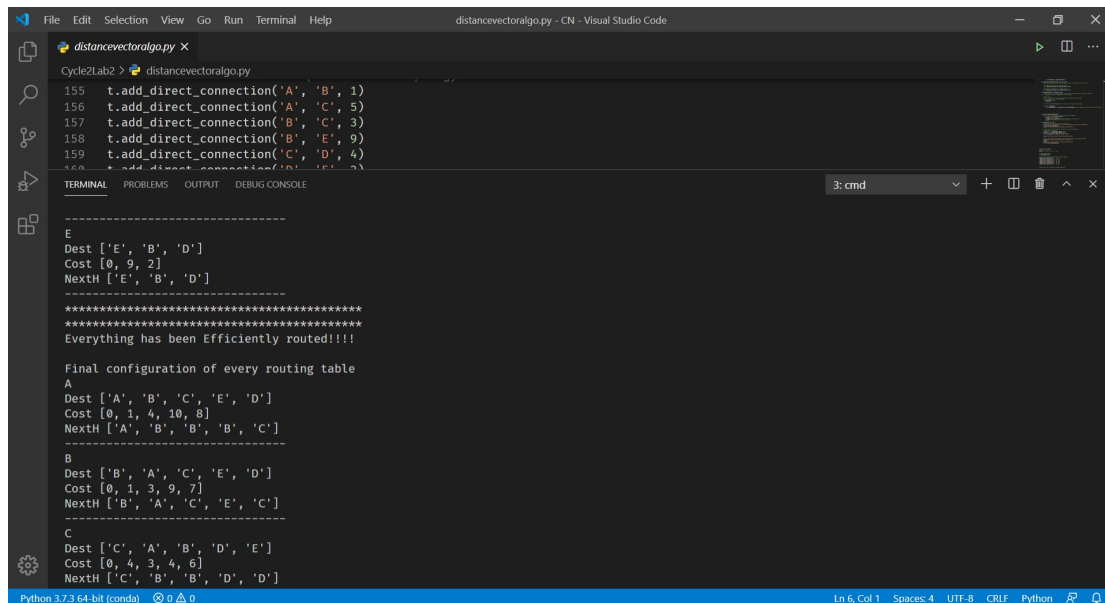
# Output



```
File Edit Selection View Go Run Terminal Help distancevectoralgo.py - CN - Visual Studio Code
distancevectoralgo.py X
Cycle2Lab2 > distancevectoralgo.py
155 t.add_direct_connection('A', 'B', 1)
156 t.add_direct_connection('A', 'C', 5)
157 t.add_direct_connection('B', 'C', 3)
158 t.add_direct_connection('B', 'E', 9)
159 t.add_direct_connection('C', 'D', 4)
160 t.add_direct_connection('D', 'E', 2)

TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE 3: cmd + - + - x

(base) C:\Users\User\Desktop\Sem 5\CN\Cycle2Lab2>python distancevectoralgo.py
Initial configuration of all routing tables after direct connections
A
Dest ['A', 'B', 'C']
Cost [0, 1, 5]
NextH ['A', 'B', 'C']
-----
B
Dest ['B', 'A', 'C', 'E']
Cost [0, 1, 3, 9]
NextH ['B', 'A', 'C', 'E']
-----
C
Dest ['C', 'A', 'B', 'D']
Cost [0, 5, 3, 4]
NextH ['C', 'A', 'B', 'D']
-----
D
Dest ['D', 'C', 'E']
Cost [0, 4, 2]
NextH ['D', 'C', 'E']
-----
E
Dest ['E', 'B', 'D']
```



```
File Edit Selection View Go Run Terminal Help distancevectoralgo.py - CN - Visual Studio Code
distancevectoralgo.py X
Cycle2Lab2 > distancevectoralgo.py
155 t.add_direct_connection('A', 'B', 1)
156 t.add_direct_connection('A', 'C', 5)
157 t.add_direct_connection('B', 'C', 3)
158 t.add_direct_connection('B', 'E', 9)
159 t.add_direct_connection('C', 'D', 4)
160 t.add_direct_connection('D', 'E', 2)

TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE 3: cmd + - + - x

-----
E
Dest ['E', 'B', 'D']
Cost [0, 9, 2]
NextH ['E', 'B', 'D']
-----
*****
*****
Everything has been Efficiently routed!!!!

Final configuration of every routing table
A
Dest ['A', 'B', 'C', 'E', 'D']
Cost [0, 1, 4, 10, 8]
NextH ['A', 'B', 'B', 'B', 'C']
-----
B
Dest ['B', 'A', 'C', 'E', 'D']
Cost [0, 1, 3, 9, 7]
NextH ['B', 'A', 'C', 'E', 'C']
-----
C
Dest ['C', 'A', 'B', 'D', 'E']
Cost [0, 4, 3, 4, 6]
NextH ['C', 'B', 'B', 'D', 'D']
```

The screenshot shows a Visual Studio Code editor with a Python file named `distancevectoralgo.py`. The code defines a graph with nodes A, B, C, D, E and their connections with costs. It then prints the shortest paths from node A to all other nodes. The output in the terminal shows the paths and costs for each node.

```

Cycle2Lab2 > distancevectoralgo.py
155 t.add_direct_connection('A', 'B', 1)
156 t.add_direct_connection('A', 'C', 5)
157 t.add_direct_connection('B', 'C', 3)
158 t.add_direct_connection('B', 'E', 9)
159 t.add_direct_connection('C', 'D', 4)
160 t.add_direct_connection('D', 'E', 2)

TERMINAL PROBLEMS OUTPUT DEBUG CONSOLE
3: cmd

Dest ['A', 'B', 'C', 'E', 'D']
Cost [0, 1, 4, 10, 8]
NextH ['A', 'B', 'B', 'B', 'B', 'C']
-----
B
Dest ['B', 'A', 'C', 'E', 'D']
Cost [0, 1, 3, 9, 7]
NextH ['B', 'A', 'C', 'E', 'C']
-----
C
Dest ['C', 'A', 'B', 'D', 'E']
Cost [0, 4, 3, 4, 6]
NextH ['C', 'B', 'B', 'D', 'D']
-----
D
Dest ['D', 'C', 'E', 'B', 'A']
Cost [0, 4, 2, 7, 8]
NextH ['D', 'C', 'E', 'C', 'C']
-----
E
Dest ['E', 'B', 'D', 'A', 'C']
Cost [0, 9, 2, 10, 6]
NextH ['E', 'B', 'D', 'B', 'D']

```