

Homework Assignment 3: An Doan

This program has been successfully compiled with g++ version 5.4.0 and GNU make 4.1 on Ubuntu 16.04.1.

This program has been tested on 3 data files, all of which are zipped with the code.

1. small.graph COST: 1.81

```
an@ai1:~/cpp/hw3$ ./prim small.graph
MST of graph generated by txt file:
Cost of MST: 1.81
(7->0: 0.16)
(1->7: 0.19)
(2->0: 0.26)
(3->2: 0.17)
(5->7: 0.28)
(4->5: 0.35)
(6->2: 0.4)
```

2. large.graph COST: 10.4635

```
an@ai1:~/cpp/hw3$ ./prim large.graph
MST of graph generated by txt file:
Cost of MST: 10.4635
(225->0: 0.02383)
(49->225: 0.03314)
(44->49: 0.02107)
(204->44: 0.01774)
(97->49: 0.03121)
(202->204: 0.04207)
(176->202: 0.04299)
(191->176: 0.02089)
(68->176: 0.04396)
(58->68: 0.04795)
```

3. test.graph COST: 30

```
an@ai1:~/cpp/hw3$ ./prim test.graph
MST of graph generated by txt file:
Cost of MST: 30
(2->0: 2)
(9->2: 1)
(8->9: 3)
(4->8: 1)
(7->4: 1)
(15->4: 2)
(10->7: 2)
(19->15: 2)
(13->9: 3)
(12->9: 3)
(3->12: 1)
(11->12: 1)
(17->12: 1)
(14->11: 1)
(1->17: 1)
(18->14: 1)
(6->1: 1)
(5->18: 1)
(16->5: 2)
```

To Run The Program In Linux:

1. Unzip zip file to new directory: unzip mst.zip
2. Compile code with makefile: make
3. Run program with test files: ./prim <file name>