CS 341
Machine Problem 3
Due April 29, 2019

For this machine problem you should write code to input a weighted graph edge by edge along with the weight of each edge. The graph should be maintained as an edge list as discussed in class. Your program should prompt you for the name of a file that contains the data that defines the graph. Next your program will prompt you for the starting vertex and the destination index. These whould be input from the command line.

To complete the program, add code to implement the algorithm discussed in class to find the shortest path through the graph. The program should print out the shortest path (you may choose to print the path out in "reverse order"). Your code should be well organized and well documented. If no such path exists your program should print out that no such path exitst

You should test your program against the following test data. The file `graph1.dat` should contain:

```
a,b,1
a,c,4
b,c,2
c,b,2
b,d,7
b,e,5
c,e,1
d,e,3
e,d,3
d,z,2
e,z,6
```

You should search from a to z, from a to c from c to z and from e to a.

The file `graph2.dat` should contain:

```
a,b,23
a,c,10
c,b,5
```

You should search from a to b, from a to c and from c to a.