Assignment 4

Due date: November 20th, 2017
Total points: 10

Implement Dijkstra's shortest path algorithm and call it from R:

- When implementing Dijkstra's algorithm, you can use the indexMinPQ class given by: https://algs4.cs.princeton.edu/24pq/IndexMinPQ.java
- Add a method to `DijkstraSP` called '`arrayPathTo`' that returns an integer array of the shortest path from the source to a given vertex.
- In R, load and parse the data file https://algs4.cs.princeton.edu/44sp/1000EWD.txt
- Use `rJava` to create the `EdgeWeightedDigraph` and `DijkstraSP` objects and populate the digraph using the data in the given file.
- You R code should assume that both the data file and the compiled Java class files are in the working directory of R.
- Find the shortest path from 0 to 6 and the path length by calling '`arrayPathTo`' and '`distTo`'.

Submit:
IndexMinPQ.java
DirectedEdge.java
EdgeWeightedDigraph.java
DijkstraSP.java
Your R code file
1000EWD.txt (you can modify/clean it for use in R)