

Assignment Name: Prim's and Kruskal's Algorithm

Assignment Specifications: Implement Prim's and Kruskal's in Java using only **our in class provided classes for Graphs and Vertices**. For information on Prim's Algorithm and Kruskal's Algorithm, visit:

Prim's: https://en.wikipedia.org/wiki/Prim%27s_algorithm

Kruskal's: https://en.wikipedia.org/wiki/Kruskal%27s_algorithm

You are to implement the following methods: readGraphFromFile, prims, and kruskals. The specifications for each method is as follows:

1. readGraphFromFile – read in a text file containing information about the graph you want to use Prim's or Kruskal's algorithm on – Your instructor will leave this to you how you want to have the layout of the data in the textfile be set up (do make sure you document this well!).
2. prims – perform Prim's algorithm on the graph generated from readGraphFromFile and display the results.
3. kruskals – perform Kruskal's algorithm on the graph generated from readGraphFromFile and display the results.

Assignment Grading Rubric:

Major functionalities ⁽¹⁾	50 pts
Project Correctness ⁽²⁾	40 pts
Documentation ⁽³⁾	10 pts
Total	100 pts

1. All required functionality implemented, properly tested, and working for full credit.
2. Project specifications met, and project compiles (your instructor will not fix compile errors – make sure your project compiles) for full credit.
3. Properly fill out Programmer Documentation text file.

Additional Notes:

Provide in your project a test driver main class demonstrating the project correctness (I will give 5 points extra credit if you are adventurous in creating a Junit test class with a minimum of 5 test methods per method listed above).

This project must be done using Netbeans 8.1+ (as this is the IDE your instructor will be compiling your project when grading).

Name your project: your-lastname-your-firstname-prims-kruskals

School policy on academic honesty is strictly enforced on this project. Your work is to be your own individual work, no copying from other students or Internet sources. Plagiarism in any form will result in an automatic zero!