The real world data I decided to use was a complete undirected graph connecting 10 real major cities. The major cities were my vertices for the graph. The cities I used were NewYorkCity, Scranton, Charlotte, Tallahassee, Miami, Tampa, Atlanta, Nashville, Chicago, and St.Louis. The edges for my graph were the distances between each city and the weight for each edge was the amount of miles between each city. With 10 vertices and using a complete undirected graph, there was a total of 45 edges in the graph.

To get the real world distance in miles between the major cities, I used google maps and used one of the cities as a the starting location and another city as the destination location. The amount of miles in between these cities was the weight I used for taking that edge.

After inserting all of the collected data into a text file to run with my program, I ran the program and directed the output to another file. I then traced the Minimum Spanning Tree that was produced and confirmed that that my calculated Minimum Spanning Tree was the same one produced from my program. There were no cycles in the Minimum Spanning Tree which was another confirmation that the implementation was correct. The results were (using → as a edge connecting two cities the Minimum Spanning Tree):

NewYorkCity → Scranton
Scranton → Charlotte
Charlotte → Miami
Miami → Tampa
Tampa → Atlanta
Atlanta → Tallahassee
Atlanta → Nashville
Nashville → Chicago
Chicago → St.Louis

When reviewing the complete graph, these were the cheapest edges in terms of fewest miles that could be taken between each city.