Shortest Path

CSIS-2420

Turning in:

Turn in your code as a **running jar file** via Canvas.

Make sure to include the code

Description:

Find the shortest path between 2 cities

Table of Distances

	SEA	SFR	LA	LV	PHO	OKC	DAL	MIN	MIL	CHI	NOR	NYC	WDC	MIA
SEA	0	808	0	0	0	0	0	0	0	2060	0	0	0	0
SFR	808	0	414	0	0	0	0	0	2257	0	0	0	0	0
LA	0	414	0	272	0	0	1440	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	1780	0	0	0	0
PHO	0	272	0	0	0	0	0	0	1771	0	0	0	0	0
OKC	0	0	0	0	0	0	0	792	0	0	0	0	0	0
DAL	0	0	1440	0	0	0	0	949	0	0	571	1614	0	0
MIN	0	0	0	0	0	792	949	0	0	0	0	1217	0	0
MIL	0	2257	0	0	1771	0	0	0	0	0	0	0	811	0
CHI	2060	0	0	1780	0	0	0	0	0	0	948	0	0	1423
NOR	0	0	0	0	0	0	571	0	0	948	0	0	0	0
NYC	0	0	0	0	0	0	1614	1217	0	0	0	0	237	0
WDC	0	0	0	0	0	0	0	0	811	0	0	237	0	0
MIA	0	0	0	0	0	0	0	0	0	1423	0	0	0	0

Requirements:

1. Build a graph based on the data provided in the table.
   Use one of Sedgewick's graph classes.
2. For each city on the map, show the city and each connected (adjacent) city and mileage to that city.
3. Allow the user to choose a start and destination city
4. If the cities are not connected let the user know that the cities are not connected
   Otherwise show the shortest distance and each city along the shortest path from source city to destination city.
5. Repeat 2 – 4 unti the user want to quit

Note:

If I echange the graph that was created in step 1 with a graph that represents a different number of cities and different distances between the cities, step 2 – 5 still need to work.

You can use any of Sedgewick's classes from the book site , however this time you are **not allowed to modify any of his classes**.