

CECS 451
Assignment 2
Total: 40 Points

General Instruction

- Submit uncompressed file(s) in the Dropbox folder via BeachBoard (Not email).
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1. (40 points) Implement a route finder program using **A* algorithm** with Jupyter Notebook.
 - i. Find `map.txt` and `distances.txt`.
 - ii. `map.txt` stores **actual** distances between connected cities.
 - iii. `distances.txt` stores **straight-line** distances between cities and Bucharest.
 - iv. The program should be able to take a departing city as an input.
 - v. The program should output a best route (based on A* algorithm) from the departing city to Bucharest.
 - vi. An expected output.

```
From city: Arad
To city: Bucharest
Best route: Arad - Sibiu - RimnicuVilcea - Pitesti - Bucharest
Total distance: 418
```
 - vii. Submit `a-star.ipynb` file.