

ASSIGNMENT #02

This file includes the instructions for compiling and running the code written as a solution for Question#1 for Assignment#2.

SearchUSA.java

Prerequisites:

Installing the latest jdk version

```
add jdk
```

Compiling the code

```
javac SearchUSA.java
```

Running the Code

```
java SearchUSA <<search_type>> <<source_city>> <<destination_city>>
```

search_type:

The type of search you wish to perform between the cities. Search Type can take the following values -

- **astar:** Perform A-Star search on the cities
- **greedy:** Perform Greedy Best First Search on the cities
- **uniform:** Perform Uniform Cost Search on the cities

source_city: The source city for this search

destination_city: The destination city for this search

Sample Test Case

```
java SearchUSA astar houston omaha
```

OUTPUT:

A-STAR SEARCH RESULT:

Expanded Cities: houston, mexia, dallas, beaumont, austin, lafayette, batonRouge, sanAntonio, newOrleans, laredo, pensacola, denver, coloradoSprings, tallahassee, elPaso, albanyGA, wichita, albuquerque, macon, santaFe, atlanta, chattanooga, nashville, lincoln, lakeCity,

Number of cities expanded: 25

Cities in final solution path: houston, mexia, dallas, denver, wichita, lincoln, omaha,

Number of cities in solution path: 7

Total Distance(f) = 1898.0

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