USC/Huawei Project Code

Python Files:

algorithm.py	The code for the single-order single-driver algorithm
alternative_algorithms.py	The code for alternative algorithms used for benchmarks/comparisons
alt.py	The code for the double-order single-driver algorithm
compare.py	Functions to compare cost, execution time, and deadlines
objects.py	Code for the objects generated and used by all algorithms
functions.py	Code for general functions used by all algorithms
generate.py	Code that pulls data from Yelp data or randomly generates data.
pruning.py	Code to compare execution time of each algorithm's pruning step

How to run the code:

You can run any algorithm individually on by running the following commands. Remember that the data is pulled out of data folder, specifically the companies, drivers, and restaurant JSON files. To generate new data, include three arguments for the number of orders, companies, and drivers. If you don't want to regenerate data, do not include any of these arguments.

Single-order algorithm **->** python algorithm.py *<num orders> <num companies> <num drivers>*

Double-order algorithm **->** python alt.py *<num orders> <num companies> <num drivers>*

To run tests on each algorithm, you'll have to edit the compare.py file at the bottom to run the specific tests you want.

How the data is formatted:

Company, order, restaurant, and driver data is all stored as JSON files in the data folder. It should be all self-explanatory on the format. The restaurant data in pulled from the business JSON file but only includes restaurants from Las Vegas.