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Project 4 Report

Big Os

StreetMap:

load(): O(N) with N being the number of GeoCoords

getSegmentsThatStartWith(): O(S) with S being the number of street segments associated with the specificGeoCoord

PointToPointRouter:

generatePointToPointRoute():

I implemented the A\* algorithm. I used two hash maps to represent a graph of nodes (and each node represents a geocoord). One map has the geocoords mapped to their associated street segments. The other map has the geocoords mapped to an associated Node which contains the necessary heuristic data for the A\* algorithm. I used a local and global heuristic score for each node. Each node also has a parent node pointer that points to the previous node through which the most optimal path lies.