Requirements and Assumptions

* The first release of the route planning management software system will only operate in a city.
* Each bus line is a straight line and has eight or more bus stops/stations on the line.
* Minimum of 5 lines for functionality. So, 5 lines x 8 stops = 40 stations, can be more, not less.
* There are at least two horizontal bus lines and three vertical lines, and they intersect, so at least six shared stops.
* Bus stops are preplaced, i.e. for initial prototype/build 01, have a pre-existing set of stations and routes with no user input. This will be our test case for the software before upgrading to user input version.
* Sure, all the bus stops can also be generated by the user through the key board; this will be more beneficial for implementing long distance travel. If you choose approach to building city bus stops, make sure there exist eight or more stops/stations for each line before testing.
* Each bus travels along one line only. Not refuel is needed; this only applies to city travel.
* Cities will be defined as being no more than 14,000 mi² and assumed to be square or circle. The New York Metro area is approximately 13,318 mi².
* System should recommend 2-3 routes if there are more than one direct paths from start to finish.
* Pathfinding operates within the confines of the user-established bus routes.  
  i.e., no random stopping/bus hopping
* Bus-related attributes will cover make, model, fuel burn rate, cruise speed, and tank size.
* A method can be established to calculate range based on the attributes of the bus and the routes available.