Big-Oh Discussion

Method – tripCreator

tripCreator is a recursive function that calls two other functions, LoadIDs and FindNextRestaurant, both run in O(n) because of the size of the vector each function is passed. However, the tripCreator runs in O(nlogn) because every iteration is results in less execution time because the size of the vector is being decreased by one.

Method – listRestaurants

listRestaurants runs in O(n) time because it iterates through a restaurant vector and simply outputs the restaurant names to the UI restaurant widget. The restaurant vector is given through the dbmanger class.

Method - databaseToRestaurants

This function iterates over rows of the database and populates our restaurant objects with the necessary information. The function runs in O(n2) since there are is at least one loop within the outside loop which over n number of items.