Project 2 Writeup
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Quick description of organization:
Restaurants are read into a BinaryTree which acts as the knowledge file
The Binary Tree nodes contain LinkedLists to handle restaurants that have the same name
Restaurants are indexed in the following indexing structures:

- BTCity - Binary tree of the cities, sorted lexicographically. The internal nodes have LinkedLists of restaurants to handle restaurants that are in the same city
- CityIndex - Contrary to the name, stores the categories (we don't actually use this in the search feature)
- CostIndex - One underlying linked list for each cost ($, $$, $$$)
- TimeIndex - One underlying linkedlist for each day of the week. In each of those linked lists restaurants are sorted by their opening time (earliest to latest)

The main file where everything runs from is NewController.c

Things that work:
Basic functionalities

- Reads in restaurants from restaurants.txt
- Printing all of the restaurants
- Disjunct and conjuncts for category searches
- Adding a new restaurant
- Modifying existing restaurants
- Removing restaurants
- Write all of the restaurants to a text file
- Search for exact matches (can include wildcards)
- Searching using the e command (matches by name and location of restaurant)
- Results of printed restaurants follow a sorting order (rank: highest->low, cost: low->high)
- Makefile
- Cleans up (most) memory on program exit

Things that do not work:

- Some memory leakage especially with regards to removals and modifies
- For modifying a restaurant, if there are commas in the list of times, then the times are read in a little bit wrong. On an older file version it did not have commas and I only realized that it did have commas at the very end. My current function just takes it like the format in the restaurant.txt where the days and times are listed out with no commas. Since there is no times line specified in the example, I interpreted it as the times being taken in with the same format as in restaurants.txt