Final Project Proposal: Restaurant Simulator

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Introduction

Are you wondering how to onboard new staff at your restaurant? Look no further than the Restaurant Simulator. A simplified program designed to show the process which takes place to prepare and serve valued customers!

It all starts with the user/customer, ordering from the options on the menu. "I will have the number 2 meal, Grilled Cheese sandwich".

The ticket is placed in line (**queue**), where first come first self is practiced. After going through the book (**list**) of recipes using a searching algorithm, finding and reading up on the preparation steps, and required ingredients are grabbed from the labeled shelf, (**Hash Table**), The ingredients are put on top of one another (**Stack**) and the delivery person delivers them through the nearest route (**Graph**).

Strategy & Implementation of Data Structures

Data Structures:
- Queues: Ticket orders received,

- Lists: of trees/recipes
- Trees: The recipes of ingredients made in the sandwiches.
- Hash Table: Inventory, grab what they need form the inventory
- Stacks: for ingredients made in the sandwiches, if asked to be taken off
- Graph: Delivery to customers