DuckDuckQuaff
Seong Hyeon "Ryan" Kim, Woosuk Lee, Raymond Wu

APCS2 pd 8
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Final Project Proposal
Wok Wok

General Description of Project:
Our final project proposal is to create an in-terminal simulation of a restaurant.
The goal of the game is to serve the pre-determined amount of customers in the least amount of time.

There will be a queue (Array) of customers who wish to order an item off of the menu, which will be represented by a binary search tree (ArrayList). Once a customer reaches the dequeue end of the line, the user must gather the materials needed to make the requested product, and must search through the BST. If the contents of the menu item cooked matches that of the one that the customer ordered, the customer is dequeued, and the process repeats for the remaining customers.

Prioritized To-Do List
1. Have a fully functioning game
    a. Implement timer for game duration
    b. One-level game with predetermined amount of customers (e.g. 10)
    c. Create customer priority queue, menu BST
    d. Create selection menu
    e. Create Customer and Cook classes
2. Expand on one-level game
    a. Variable amount of customers
3. Change customer queue into priority queue
    a. Customers with least amount of requests dequeued first
    b. Customers have VIP tag (boolean instance variable) for priority queue

Concepts Addressed in Our Project:
- `.equals()`
- ArrayList/Binary search
- Binary search trees/in-order traversal
- Queues/Array
- Creating an ADT (abstract data type) to store all menu items

Prospective:
- *Priority queues*