Landon, Ron, Aakrist
4th period

About our game-

Shemmy's Subbaria is inspired by Papa's Pizzeria, where instead of fulfilling pizza orders, the objective is to create sandwiches. The objective of the game is to prepare customer's sandwich orders to near perfection, as the precision affects how many points the player earns. Points can be used to buy upgrades to the shop and ingredients to make higher valued sandwiches

What our data structures are going to be-

The first data structure that we will be using for our game will be a Queue. We chose a Queue for the first of our advanced data structures because of our time-based point system and special customer precedence. The Queue will be used to store the customers' orders, which will be outputted into GUI to instruct the player when making sandwiches.

Then our second data structure will be a Set. This will be important because the Set will be used to store the various ingredients, which will be accessed based on the customer order from the Queue.

Our third data structure will be a Map for shop upgrades. The Map would contain String values for the keys as they represent the upgrade being purchased, and that key would be mapped to an item boost Object.

How our data access will be optimized-

The data will have optimized access because since we're using a map there is easy access to shop upgrades and item Object creations that take effect when playing the game. Then next the queue is also the right tool for the job because of its ability to store customer requests in order of when the player receives them. Lastly, the Set would be efficient in storing the different ingredients, which would be implemented inside the ingredients superclass to allow for easy accessibility of each unique ingredient.

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Our GUI/Graphical component-

The GUI will consist of a view of the lobby where the customers will appear and the player can click on them to take their order. A button for constructing the sandwiches can be clicked to switch the scene to the kitchen where the sandwich will be constructed in different stations, each with their own scene that can be switched back and forth through onscreen buttons. Once the orders are complete and ready to be handed to the customer, the customer will run through an animation based on the satisfaction with their respective sandwiches, as well as a tip amount being displayed on the screen which would add to player points.

How the users interacts-

The user has the ability to click on each customer that walks up to the counter, which allows for food order objects to be created and added to the queue. The user can also buy upgrades in the shop window that would display objects or ingredients inside the store. Each kitchen station has upgrades along with the lobby.

Application instructions-

We will be adding the instructions for the game on a pause menu which will be able to be accessed anytime during the game. These instructions will include basic control of the game and what they do. Also it will include the number of days the player has gotten through, as well as the button for accessing the shop to buy upgrades.