

Final Project Proposal

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Motivation for why this is an interesting project

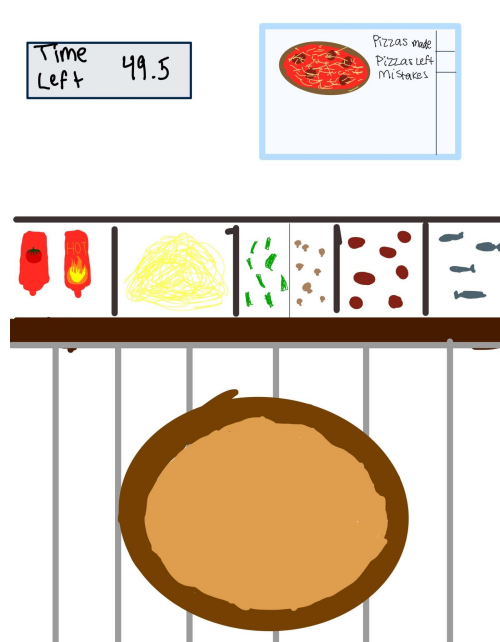
This is an interesting project to us because it is a fun interactive game that is an adaptation of a game we all loved and played in our childhood. The project also incorporates our interests outside of computer science like drawing and food.

Description of what task/problem you're trying to solve

Create a game that allows that user to race against time and other players in building different types of pizza. If there are no other users on the server then players can play against themselves and try to beat their own highest time.

Description of the GUI along with a sketch

For this project, there will be multiple GUIs used. We will create a GUI for the start page, login page, and then the main game image. The start page will have a button for the user to start the game and an instructions button that will pull up the instructions for the game. The login page will allow the user to connect to the server and pick other players to compete against. The main part of the game will have the buttons to add the toppings to the pizza and be able to pause the game.



Description of how your project incorporates networking and/or multithreading

Our project will include networking by having the players connect to a local server so that they are able to interact and compete with each other users. Our project will also incorporate multithreading by creating a new thread for each user that logs onto the game. These threads will run simultaneously and at the end interact with each other to see the winner of the game.

Description of how and why the project is sufficiently challenging

This project will utilize many different techniques we have learned throughout the class. For example, we plan to of course use a GUI but our GUI will have many pictures and action listeners to make it interactive and visually appealing. Adding pictures will also make it easier to play and more intuitive. In addition to a complex GUI, we will implement a level of competition by making another thread that allows a second user to play. This will make it a race between the two players and whoever makes the pizzas first wins. Lastly, we plan to make the pizza order random so it is not the same pizza order every time.

Description of a testing plan and its deliverables

- Functional:
 - Makes a GUI with all the correct visuals
 - Once the “finish!” is pressed the time stops
 - There is at least a second player able to play
 - There is an accurate comparison of the player's times
 - The pizza orders are randomized every time
- Nonfunctional:
 - The game is engaging and competitive
 - Like survey that is sent to people and ask them their rating of the game
 - Does not crash
 - Test the speed of the screen changing and the button speed.

A description of how the manager’s workload will be adjusted to account for the extra work they are doing

Maria has agreed to do lots of the drawing for the GUI, while Kealia and Gillian implement most of the action listeners and other components that are beyond the GUI.