Pizza Party Game

By Shoaib, Jasper, Nagi, and Dhivas

Group 207

Description of Features Implemented

Add ingredients on the pizza to fulfill order

Click on the trash can to reset your pizza

Click on customer when you have the right set of ingredients on the pizza

Cheese and Sauce Toppings

Pepperoni, Mushroom, Anchovies, Olive, Onion, Pepper, Sausage

Tap to cook pizza

Customize Pizza by selecting topics around the oven
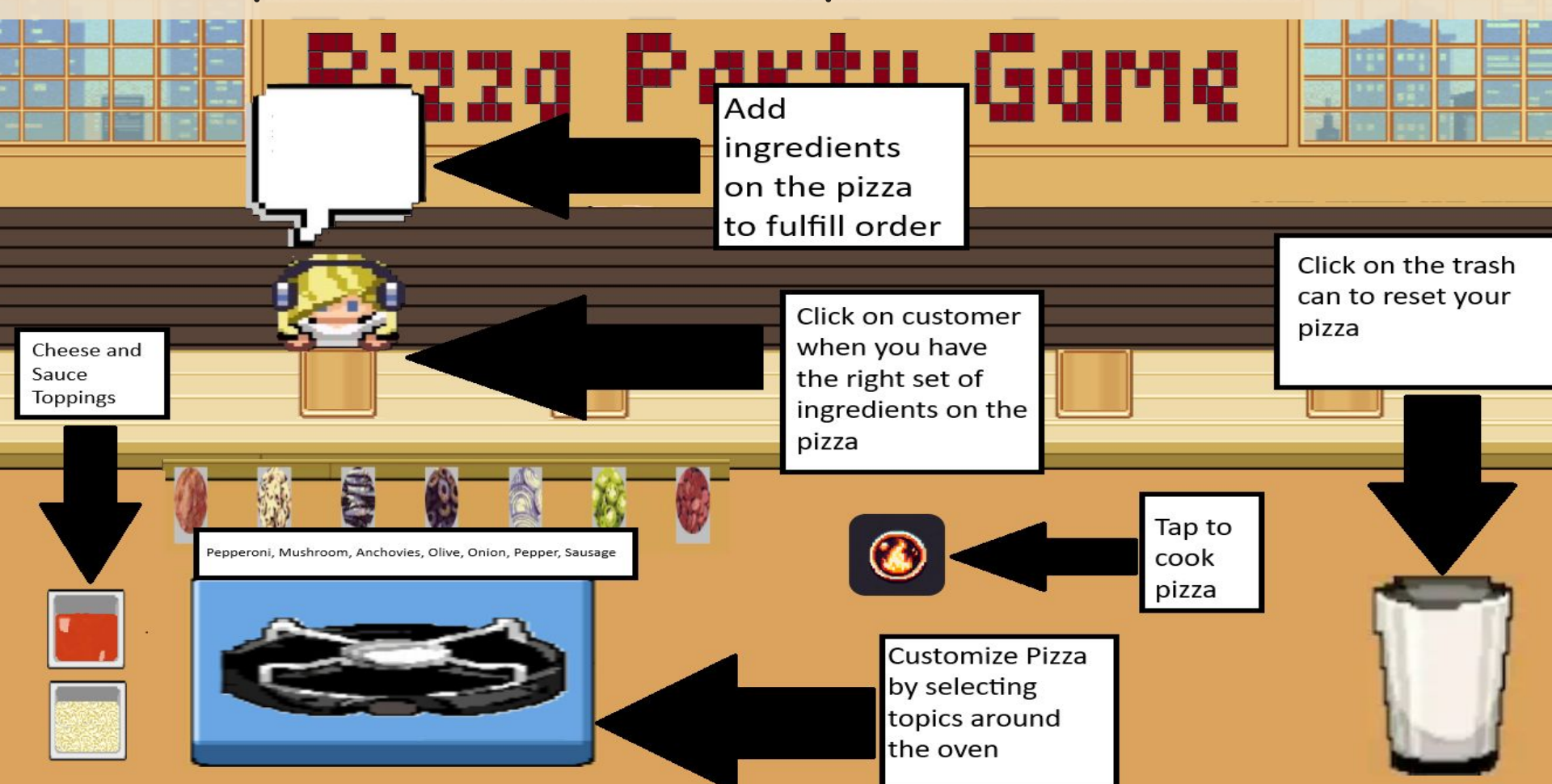
Technology Stack and Design Decisions

- **Covey.Town Codebase:** Implementation of Pizza Party Game

- **React Engine:** Components are dynamic and update over time

- **Render.com** and **Heroku:** Our continuous development pipeline

- **MongoDB** (DAO Pattern): Player scores saved to our database

User Stories

User story 1: As a typical Covey Town player, I want the new game to be incorporated into the overall Covey Town environment (so that I can compete in food preparation against my friends)

User story 2: As an early 2000s online game enjoyer, I want Pizza Party to include the same animations and UI design (similar to the charm of the popular Papa's Pizzeria so that I can relive the beautifully crafted front-end)

User story 3: As a casual gamer, I want the difficulty to scale up (as I continue playing so that the game offers an appropriate level of challenge to keep me playing)

Conditions of Satisfaction (1)

- Timed pizza preparation with increasing difficulty
- Diverse customers with specific orders and impatience
- Intuitive controls, clear objectives, and scoring
- Leaderboard for a friendly competition (on a database)

Conditions of Satisfaction (2)

- Drawings of characters, food, kitchen, and more ✓
- Kitchen space area to start the game ✓
- Ability to restart and leave a game at will ✓
- Game is complete with a game area implemented into Covey.town ✓
- Oven functionality to ensure correct baking of the pizza ✓

Extensions of Product

- Visual cues for pressure and challenge
  - Customers pop up over time and display countdown
- Player Profiles and Social Features
  - Name and scores show during game and in leaderboard
- Garbage bin to clear pizza toppings
- Placed helpful instructions at the start of the game
- Covey.Town players can watch other player's game
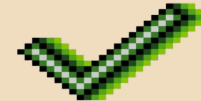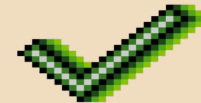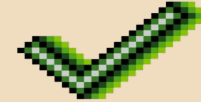
Extensions Not Completed

- Skill customization and side objectives.
- Unlockable ingredients, dishes, and tools.
- Animations for preparing the food and serving to customers.
- Customer preferences and dietary restrictions

Individual Contributions

- **Dhivas**: frontend and backend foundation, UI layering, order generation

- **Shoaib**: Game area functions, ApplyMove, Backend testing, increasing difficulty

- **Nagi**: leaderboard/MongoDB, timing framework, Customer display

- **Jasper**: sprite creation, project display, code integrator and reviewer
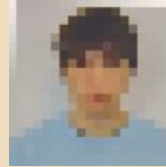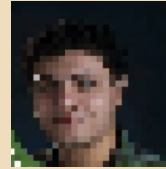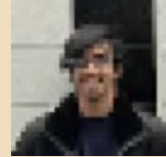
Estimated Time Spent (per member):

65+ hours

Percent Contributions

- **Shoaib** 25%
- **Dhivas** 25%
- **Jasper** 25%
- **Nagi** 25%

Challenges

- Having customers generate in a specified time interval
  - setinterval in React use-effect and controller communication
- Having items overlap with the background
  - implement divs with CSS coordinates and array mapping
- Connecting leaderboard to mongoDB database
  - grab values from controller and update score of the player

Deviations

- Placed the pizza initially on the oven
  - Allows for more seamless gameplay
- Placed leaderboard at the end of the game on a pizza
  - Adds a fun touch for friendly covey.town competition
- Made increased difficulty tied to current score
  - Difficulty affects points awarded and customer patience

Demo and Source

- Our demo site:
  https://pizza-party-exbp.onrend
  er.com/

- Our code:
  https://github.com/neu-cs4530/s
  pring24-project-s24-group-207