Project Report

Amir Partow Aug 4, 2025

Bet with Bubble Pop Game

Introduction & Inspiration

This game was designed and coded by myself by using my own ideas. However, I also did research for inspiration. My main sources were all the course labs—especially Lab 5-2 and Lab 7-2—because the betting idea originally came from those labs. I also searched on Google and found out, based on my current skills, that I could make a bubble pop style game, which matched my abilities and the course topics. Another important resource was YouTube. I watched a video (YouTube video link) from a developer who used similar logic (not using canvas and building the game with clickable shapes that fit all screens). I also adopted the idea of having a "Start" button before the game begins, but I improved it by adding mouseover and mouseout highlights (yellow) for better interaction. These features were not included in her original video. All code and logic for the main game flow, levels, betting, and scoring were designed by me, but I acknowledge inspiration and recommendations from my instructor, Steven Bojiang Ma, who taught me key skills in both CPSC 1030 and CPSC 1045.

How the Game Works

When you enter the game, you see a start environment. There are 6 info boxes at the bottom of the screen, including two boxes in the middle for betting. You must add money to your balance and place a bet before you can start the game. If you do not add money, the game will not start. After you add money, you can start the game, which has 5 levels. Each level uses a different shape: circle, square, triangle, tall rectangle, oval , and each level uses random RGB colors. If you win a level, your bet is doubled for that round. If you lose, there is a 50% chance (random) that you win 1.5x your bet or lose everything. The game then stops, and you need to bet again if you want to continue. Each level win plays a "win" sound; for the final round (level 5), the win sound is different, and an emoji celebration fills the screen. If you lose, a "game over" sound play. Every time you pop a bubble, a pop sound plays. The info boxes also show your number of popped bubbles, missed bubbles, high score (with a reset button), and your current level.

Coding Used

HTML & CSS: For structure and styling, as taught in CPSC 1030 and reinforced by Steven Bojiang Ma.

JavaScript: All game logic and interactivity, following course recommendations for CPSC 1045.

References and Acknowledgements

Course Labs: All labs, especially Lab 5-2 and Lab 7-2 for the betting idea.

YouTube: Inspiration for DOM-based bubble pop: https://youtu.be/B-QKjhE3IC4 Adapted, not copied—added my own features such as highlight effects and improved betting logic.

Instructor: Special thanks to Steven Bojiang Ma for creative teaching and helpful recommendations in JavaScript.

W3Schools: I used W3Schools as a reference for basic JavaScript syntax and DOM manipulation examples.

Course Concepts Used

Variables, Expressions: JavaScript Basics and Expressions (Week 2)

Functions: JavaScript Functions (Week 3)

Conditionals: Conditional Statements (Week 5)

Loops: Loops (Week 8)

Events: Event-driven Programming (Week 4)

Graphics/Shapes: Canvas (Week 7) I did not use <canvas> directly, but I used similar shape logic with div and CSS.

Animation/Timers: Animation and Array (Weeks 9 and 10)

Arrays: Animation and Array (Weeks 9 and 10)

Objects: Objects (Week 12)

Local Storage: Final Review (Week 13)

DOM Manipulation: JavaScript Basics (Week 2)