

2.1 The Game

The game is based on a 2D arcade-style board game. The main character is a programmer who is trying to get all the codes (regular rewards) before running the code (endpoint). However, the character faces errors in this journey (punishments). The player should try to avoid errors as much as possible because they reduce the code quality (score). Moreover, there are bugs on the board as well. If bugs and the character exist on the same tile, the player loses the game instantly. Furthermore, the player can get the energy drinks that pop up on the board to enhance their score (bonus rewards). In short, the goal in this game is to collect all codes and reach the endpoint without encountering the bugs and collecting energy drinks to get a better score.

We changed the storyline of the game in phase 2. The game was supposed to be about a singer who is trying to make money by going to concerts. The player's goal was to perform in all concerts (regular rewards) and get into the mansion (endpoint). However, we changed the game into *Coding Mania*. We did not know how to design the character and rewards, so it was decided to change the storyline. The new storyline was easier to design and sounded more interesting than the previous one. We also wanted to have a trophy system, but we agreed that is not a good idea. We also added levels to the game which was not a part of our initial plan. Finally, we designed 5 characters for the game so the user can choose the character they want.

During this project, we learned how to work as a team and enhance our product quality together. It is not possible to present a good product without finding an efficient way to communicate with your teammates, so we had to find a solution. Fortunately, we learned how to manage our meetings and get the best out of every session. We divided the tasks among all the members based on our abilities, but we also tried to improve ourselves and our teammates.

2.2 Tutorial

The main features of *Coding Mania* include the standard requirements, a character select tool, and a level select tool. We created an instructions menu (Figure 1), available from the main menu by clicking instructions (Figure 2), which outline the rules and goal of the game. This menu also shows the player what each entity looks like so that when they play the game they won't be overwhelmed with unknown graphics on the screen. The character select menu (Figure 3) appears when the player selects play from the main menu (Figure 4), the players available to play as are the members of our group, Group 2: Sahba, John, David, and Dylan, as well as a guest character, which happens to be our initial character design before we thought of having a character select feature. If a player would like to select a specific level, maybe it was one they had a particularly hard time with and need to conquer from one of the four levels (7-10), we have the level select tool (Figure 5) available from the main menu (Figure 6).

To play the game there are a few important rules to follow (Figure 1). The player must collect all pieces of code then walk over the "run()" tile to win. When the game is over the player must restart the level. Pieces of code and energy drinks will increase the player's score. If the player's score drops below 0 then the game is over. If a moving enemy catches the player then the game is over. Finally, use the W, A, S, D keys to move.

INSTRUCTIONS

You need to collect all the code 
After collecting all the code, finish the level with run() 
Avoid the bugs  chasing you
Stepping on the Errors  will lose you points
If you run out of points or get caught by a bug, you lose
Semicolon walls  will block you
Collect energy drinks  for bonus points

Back

Figure 1

SELECT YOUR CHARACTER

Sahba



Guest



John



David



Dylan



Figure 3

Select a Level

Level 1

Level 3

Level 2

Level 4

Main Menu

Figure 5

Coding Mania

Play

Levels

Instructions

Quit

Figure 2

Coding Mania

Play

Levels

Instructions

Quit

Figure 4

Coding Mania

Play

Levels

Instructions

Quit

Figure 6

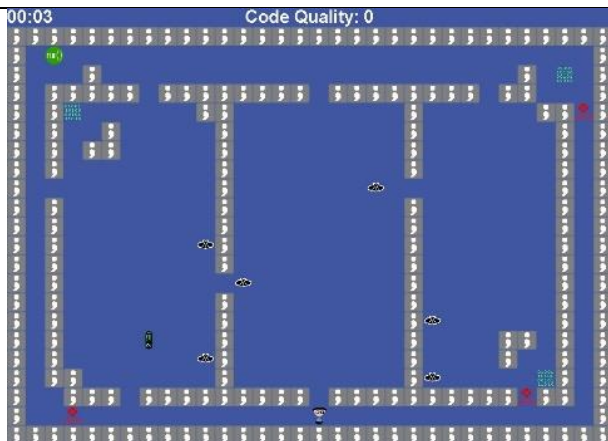


Figure 7



Figure 8



Figure 9



Figure 10