LMC 2700 team 4 final game write up: Kirby's Adventure

Game Concept

Our team's project concept is to build a game similar to Google Chrome's offline dinosaur game. Our idea is to design our own characters and in-game elements for the users to play. We followed the same rules in terms of the game-play mechanics and removed the flying obstacles to reduce our game difficulty.

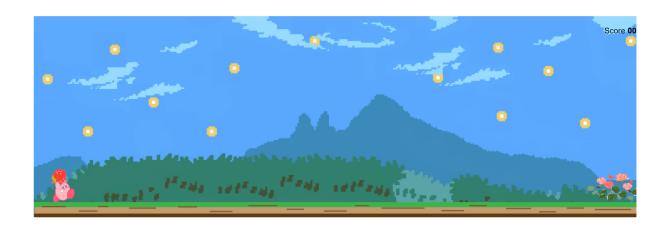
To start the game, players can press the spacebar to see the Kirby character move forward. Players then need to press the up arrow key to let Kirby jump and avoid the flower obstacles. If Kirby accidentally hits a flower obstacle, the game will end with "GAME OVER" showing on the screen, and players can press the spacebar again to restart the game.

During gameplay, the road, clouds, and flowers move backward to let players have the feeling that Kirby is moving forward and going to hit the flower obstacle. However, the clouds move at a different speed compared to that of the flowers and road, giving players a more dynamic gameplay experience.

Technical Execution

This game is made up of three files (Html, CSS, javascript) and a folder of picture assets. Each of these files is essential for building this game. The Html file constructs the visual elements of the game screen by putting all of the elements in the screen, while the CSS file manages the location of each element as well as the size and moving speed. Lastly, the javascript file is responsible for the player interaction, including pressing the spacebar to start, pressing the up arrow key to jump, and hitting a flower obstacle to end the game. All of these files work together to build up the overall game for the players to play.

Below is a screenshot of the game's start screen: the main character Kirby is located at the bottom left corner, and there is an upcoming flower obstacle at the bottom right corner. The overall theme of the game is based on the main character, Kirby, giving a dreamy and cartoony feel. The color scheme is mainly nature's color, blue and green, with some bright highlights. We used pink as the main character and the flower obstacles' color so that they stand out from the cool color background for players to easily notice.



When the game begins, the score at the top right corner will start to increase as the player continues to survive in the game. In the screenshot below, the flower obstacle moves towards Kirby, and the player needs to press the up arrow key to let Kirby jump to avoid this obstacle. Also, there are some white clouds at the top left corner, which start to show up when the game begins, and move backward as well but at a different speed from other elements.



Team Roles

Xinen Lyu(designer, programmer)

Ren Zheng(designer, programmer)

Yujiao Liu(designer, programmer, communicator)

Regarding each person's role in the group, every member contributed to the coding portion of the three files, and we divided up the work for designing in-game elements. Xinen Lyu designed the main character, Kirby, Ren Zheng designed the background and the moving clouds, and Yujiao Liu designed the road and flower obstacles.

Instructions for gameplay:

To start the game, players press the spacebar.

To avoid flower obstacles, players press the up arrow key.

If Kirby hits an obstacle, players press the spacebar to restart.

Next Steps

The team would continue to develop the game by adding more variables and functions such as time limit, character selection, or flying obstacles. There are many options when it comes to implementing more functions into this game, and our team is more than happy to continue developing it for the players to have more options to choose from and to have a better gameplay experience.