Final Project Pitch - CART 253

Summary

An endless vertical scrolling game, where players have to keep the character on the screen jumping up on the platforms. If they miss the platform they lose and the game is over and score restarts.

There will be two rows (left and right) that will randomly generate platforms as the games goes on. Players will use the left and right arrow key to choose which row they want to jump to. If they choose the one without the platform they lose. If not they gain 1 point for each platform they climb.

Each 20 points the scrolling speed increases which in turn gives them less time to choose a platform making the game more difficult. Once they reach 100 points the speed will stay constant and the game will go on until a player looses

The game will have a simple design. The jumping character will be a square with a cute face on it. The background will be a solid color probably grey, white or black white. The platforms will be random bright colors.

There will be a
- home screen: with a simple key press to start game
- game screen: which will run the game and display the score and potentially the high-score.
- a game over screen: where players can easily restart the game with a key-press.

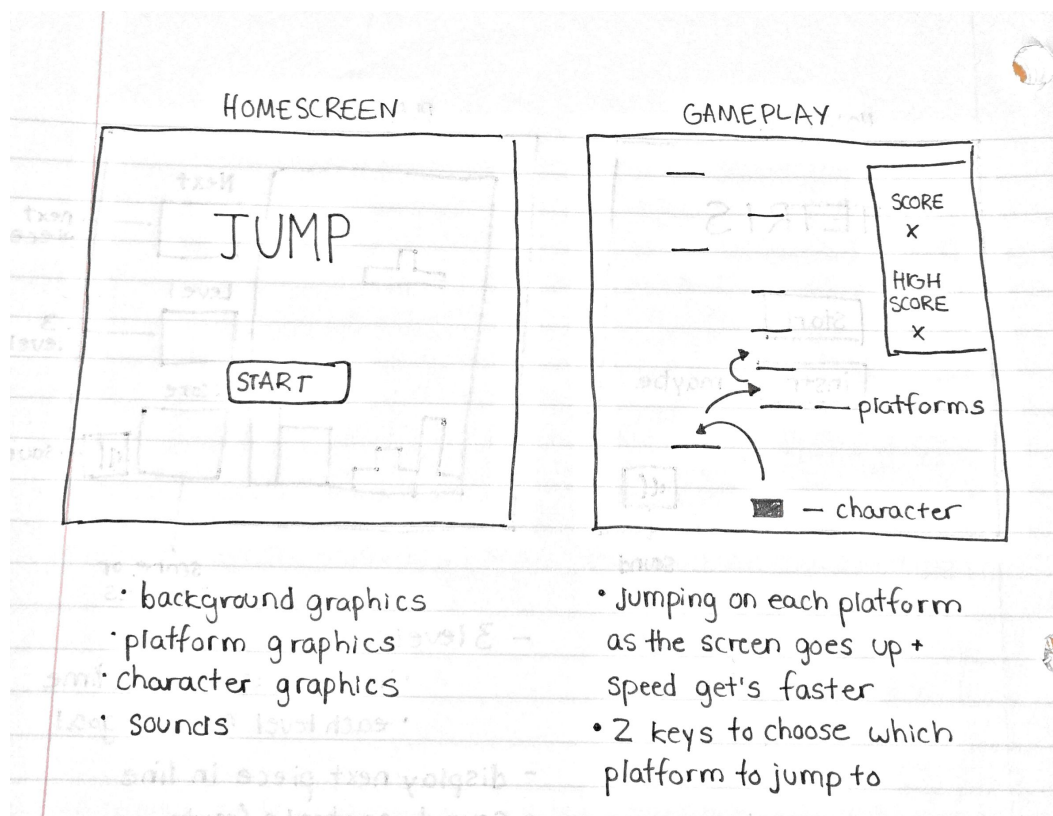The game will also have music playing in the background.

Media

Image 1: Initial sketches of home-screen and game screen

Image 2: Home-screen - features a volume switch and displays the name of the game as well as the character. Also gives start instructions

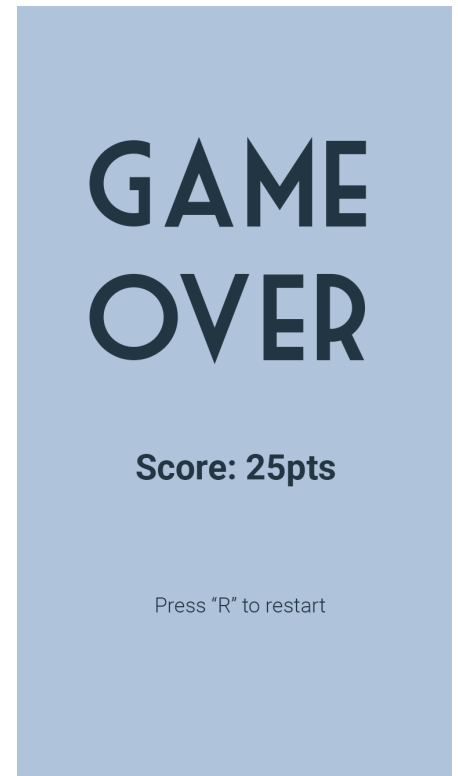Image 3: Home-screen - features the score, platforms and character.

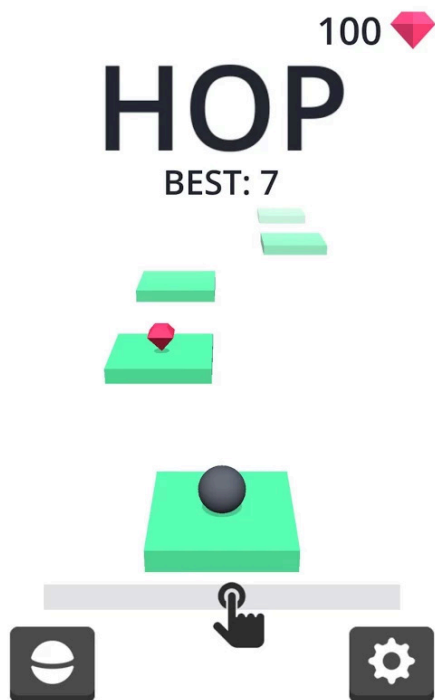Image 3 : Game Over - Displays score and restart instructions

---

Image 3: Hop Game-play Screenshot

Inspired by the Android Game Hop

Hop is an arcade game where you bounce off tiles and make as many hops as you can to gain points. You can make combos and gain diamonds.

My version is very similar except its flat and 2d. Instead of moving on a path you will be jumping up to the next platform. The controls are also different as Hop is a mobile game you use your touchscreen to control the game or the slider on the screen. I would use the keys on the keyboard to achieve this.

I also wont have any special rewards like the diamonds in Hop.

Basically they are both endless scroll games where you bounce or jump to platforms as the game speed ups while you try to miss a platform and die.

Technical Approach

Platforms:
- class with array of platforms for left and right sides
- x will be the same for each, y will change and be random each time
- reference https://www.youtube.com/watch?v=c9ZxyS2vyiM (tutorial example of platform game with code and explinations will be good to watch)

Endless Background *new concept
- for and if statements
          https://www.youtube.com/watch?v=C9l_5SOAFbg (tutorial on endless scrolling background, this one is vertical though not horozontal. Useful to see the concept and then i can modify for vertical)

Character:
- will be a class
- collison with platforms
- if statment if it misses the platform = game over
- jumps controlled with the left and right arrow keys

Score:
- each jump = 1 point
- 20 point intervals = speed up untill 100 (if statements that change speed variable)

Highscore (might implement)
- two functions (load and save scores)
- saveStrings() *new concept
          https://www.processing.org/reference/saveStrings_.html (about the function and how to use it)
- loadString() *new concept
          https://www.processing.org/reference/loadStrings_.html (about the function and how to use it)