GALS! THE GAME

First report for the final project

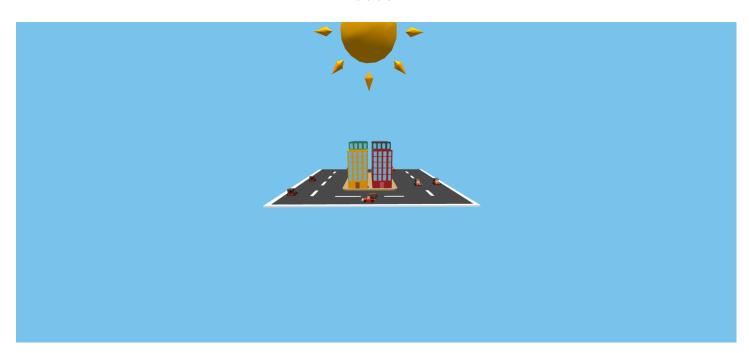Gonçalo Marques Ferreira

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URL / Github:	URL: galsthegame.netlify.app Github Repo: https://github.com/goncalomf20/ICG_107853
Idea:	Based on the child's tale "The chicken that crosses the road" , Gals! is a game about a chicken that is passing through a lot of situations. Be the best helping our chicken called "gals" survive several situations and compete with your friends through the several levels.
Levels:	• **Level 1: The first level is helping the chicken walk around or jump over the logs that are present in the forest, a little bit in the style of the mobile game "Subway Surfers". The score is based in the amount of time you spend alive, and the rate of the log that is increasing over time, making the game harder. You can play using WASD to moviment and Space to jump.** • **Level 2: The second level is where our chicken enters the city and sees itself stuck in the traffic. Help the chicken make the most possible points based in how many meters it can run in the city's most attended roundabout** • **Level 3: In the third level, "gals" will be the first chicken … in the moon! Help the chicken move from the different objects of appearing and win points based on how many points you scored**
Delivery Date:	Apr 18, 2024

Level 1

Level 2

Project Details

Requirements and Objectives

After the project is finalized, "Gals! The Game" should have the 3 levels up and running. I hope the system provides the user 2 different styles of user interaction, through the keyboard but also through the mouse. Should have light mode and dark mode, and all the shades and textures up and running. All the models shall be low polygonal to turn the game light and able to run in any browser. The game should have all the bugs reported fixed and all the scores balanced. All the games need to be increasingly getting more difficult, and adding some features on the way. I want to make a menu that leaves the game more interactive and easy to choose over the different levels, with the opportunity

to save scores and access them after, maybe with a cookies or a localhost system. If possible, that game should also give the possibility to add friends and challenge them to beat your scores in the game

What is done and How i did it

I used some models that I got in the [sketchfab](#) to help me decorate the game, in the format of .gltf, such as the sun, the city, the chicken and the forest. Textures are being applied to the logs, to give the wood aspect of it and there is also some the aspect. There are some points of light in the project. For the level 1, the game is already quite finished, with the score and the physics with the logs done, such as the mechanics involving the keyboard (WASD to move the chicken and the Space to jump). Although I think that's something to be worked on, the hitbox of the chicken is working and it cancels the animations on the screen once it its a log. There are also some transparent barriers that have no physics whatsoever, so for now they also cancel all animations in the screen. Apparently there are some bugs reported with the chicken jumping infinitely, but i'm aware and trying to fix it already. The level 2 is already started, making all the models to it and also making the cars, witch the hitbox is not the perfect, but the routes are working perfectly, with each car having is own route associated, having 10 different routes in the game.

What is left to be done?

- Shadows
- Mechanics of jumping fixed
- Some Bugs on level 1
- Adjust the difficulty and make several difficulties for each game based on the frame rate and spawn rate
- More decoration on level 2
- Physics for the walls
- New Movement Mechanics for level 2
- All the level 3
- Light mode
- HUD more developed
- Menu that gives access to all 3 levels
- Scoreboard
- Best Score (Score Tracker)
- Sounds
- Friends Competition
- User Testing
- Car and Chicken Hitboxes Fixed
- Camera Locked
- Mouse Movement

Potential Obstacles

- ☐ Time
- ☐ Difficulties with different browsers
- ☐ Bug Fixing
- ☐ Making the game scale correctly
- ☐ Play Between Friends
- ☐ Shadows in the Models
- ☐ Best Choice for Possible Spotlights
- ☐ Physics of the game might be strange