Week 1 assignment

Game name: “Rocket League: Lite Edition”

Team Composition: Madalina Tugui, Daria Popovici, Robert Frentz, Alexandru Cazan

Type of game: vehicular football(soccer for americans) video game

Core gameplay:

As the type of game suggests, the core gameplay idea is playing a football match with cars. Every car on the field is controlled by a player. The player, throught the car, can interact with the football field(driving around the field), the ball(hitting it) and with other cars(bumping). A match will have a timer of 5 minutes, 2 teams of 3 players and the game ends when the timer reaches 0:00. The winner is the team with the most goals scored(in case of 0-0 there will be a draw).

Links:
- https://www.rocketleague.com/
- https://en.wikipedia.org/wiki/Supersonic_Acrobatic_Rocket-Powered_Battle-Cars
- https://www.youtube.com/watch?v=riilLCDgf-s

Week 2-3 assignment

Over the last two weeks, we worked in pairs in order to achieve the desired prototype. Daria and Alex worked mainly on the environment while Robert and Madalina worked on the car physics and camera positioning.
Alex managed to create a basic environment with a field and side walls with collisions partialy restricting the action inside the walls. He also added a basic scoring system that resets the ball everytime the player score.
Daria provided the prototype with texture for the field and placed football gates in order to supply the player an objective in the game.
Madalina succeded in creating a ball camera and a car camera. The purpose of the ball camera is to rotate towards the ball without losing sight of the player car , providing him information with both his car position and the ball position. The car camera is a pretty basic racing camera that follows the car.
Robert worked on the car physics(movement, interaction with the environment) and on the ball physics(interaction with the environment). The player, through the car, can hit the ball and score.
In the future weeks we aim to add an upper wall to fully encapsulate the action inside, to improve the car and ball physics so we have a more stable gameplay and add multiplayer.

Week 4-5 assignment

Over the last two weeks we improved cars movement, stability and rotation, created a new environment with Rocket League like elements, created some HUD elements and added Photon Networking.

Alex implemented a basic Photon connection between clients and he is now working on clients communcation using RPC and Photon RaiseEvent system.
Madalina worked on the HUD, creating a small panel that provides the user with information about current score, the time that passed since the match started and small round panel suggesting remaining car boost quantity.
Daria worked on a new environment(new sidewalls, new roof etc.) with the purpose of achieving a Rocket League user experience.
Robert worked on smoothening cars rotation and movement with an increase precision based on user input. Currently working on cars jumping action and air rotation.

In the future weeks we aim to finish designing the environment, add the possibility of car double jumping and boosting, finish the HUD elements and start working on the overall game GUI.