This document contains a list of some prototypes which I feel would be very useful to have built when coming to do a full technical design of the 2D Car Game project.

The intention is by completing these prototypes: I will have a good understanding and practical grasp on each of the core elements of the final project BEFORE I do the full technical design.

This will hopefully help me break the project down into more manageable steps before combing them into the full project.

List of prototypes

<u>Driving and Collision detection and handling on client side (12/03/24 – 16/03/24) – 4 days</u>

- Realistic collision detection of rectangles(cars) and lines (track edges).
- Realistic application of impulses on collision
- Driving must feel intuitive and realistic and have drifting mechanic implemented

<u>Re-Building Driving and Collision detection with Unity's tools (18/03/24 – 19/03/24) - 2 days</u>

- Realistic collision detection of cars and track with Unity colliders.
- Realistic application of impulses on collision with Unity Rigidbody2D and Colliders
- Driving must feel intuitive and realistic and have drifting mechanic implemented
- Drifting score system and timer for 1 map
- 1st map created and drivable

<u>Menu Screen, Multiple maps, Multiple cars (20/03/24 – 23/03/24) – 4 days</u>

- Set up a menu screen scene and have the 4 different maps be loadable scenes
- Set up GameState class that stores information needed between Scenes
- Have menu selection for multiple cars so you can pick which car you'd like
- Post game scene or UI popup that shows score and will later be used for high-scores

<u>High-scores website and accounts databases (25/03/24 – 27/03/24) - 3 Days</u>

- Creating and managing user accounts (through steam/ linked with steam)
- POSTing and GETing of high-score and user data SECURELY.
- Link "Post game scene" to highscores so visible from In unity game

<u>Polishing, Distribution platform requirements (28/03/24 – 31/03/24) – 4 days</u>

- Linking account system with steam so you can sign in with steam to your GameAccount
- Add friends tab to highscores so you can see GameAccount friends and SteamFriends highscores
- General gameplay polish and bug fixing (get family and friends to play-test)