Karcerr Game Development Document

General

Description

- **Karcerr** is a mobile kart racing game featuring a dynamic free-roam map where players can explore, race, and unlock karts. The game includes mechanics such as driving, boosting, and handbrake drifting, all influenced by a dynamic weather system that impacts gameplay.

Theme:

- A vibrant and fast-paced kart racing game set in diverse environments with changing weather conditions, offering a mix of fun and competition.

Genre / Category:

- Mobile Kart Racing / Open-World Exploration

Platform:

- iOS and Android

Audience:

- Targeted at players aged 13-35 who enjoy racing games, competitive multiplayer, and dynamic gameplay experiences.

Art

Environments:

- Designs for various racing tracks, open-world areas, and weather effects.

3D Assets:

- 3D models of karts, environmental objects, and dynamic weather elements.

User Interface:

- Design and layout of in-game menus, HUD, and interactive elements.

Art Style:

- A bright and colorful cartoony aesthetic with dynamic lighting and weather effects to enhance the racing experience.

Audio

Music:

- A dynamic soundtrack that adapts to the in-game environment and weather conditions.

Music Moods:

- Upbeat and energetic tracks for racing.
- Calm and atmospheric tracks for exploration.
- Intense and dramatic tracks for competitive moments.

SFX:

- Sound effects categorized into character, environment, and UI sounds.

Character SFX:

- Engine roars, tire screeches, boost sounds, and character reactions.

Environment SFX:

- Weather sounds (rain, thunder, wind), ambient noises, and track-specific effects.

UI SFX:

- Clicks, selection confirmations, and other interface-related sounds.

Design

Design Priorities:

- Focus on creating a seamless blend of racing and exploration with an emphasis on dynamic gameplay influenced by weather.

Core Mechanics:

- Driving, boosting, handbrake drifting, weather-affected handling, and kart unlocking.

Menu / Game Flow:

- The structure and progression of menus and gameplay, from start to finish.

Menu Screens:

- Designs for splash screen, main menu, options, and pause menus.

Splash:

- The initial screen with the game's logo and branding.

Main Menu:

- The central hub for starting a game, accessing settings, and more.

Environments:
- Detailed city, and forest environment along with designs for the various locations within the game, including dynamic weather effects.

Programming

Standards:

- Using C#
-Car coded using physics of Wheels and Colliding with the ground.

Tools:

- Uses houdini to generate the wide cityscape along with creating skyboxes.

Prototype Prioritization:

- Game Mechanics:

Initial implementation of driving, boosting, and drifting.

- Level / Interactable Design:

Early designs of the free-roam map and key race tracks.

-Art Direction / Design:

The art style is heavily stylised to look solid in color, with very little textured surfaces.

Alpha Prioritization:

- Game Mechanics:

 Refinement of core mechanics and addition of dynamic weather.

- Level / Interactable Design:

 Completing design of all major environments.

- Art Direction / Design:

Finalization of key assets and UI elements.

Beta Prioritization:

-Game Mechanics:

 Polishing gameplay, bug fixing, and balance adjustments.

- Level / Interactable Design:

 Final level designs and optimization.

- Art Direction / Design:

 Complete art assets and visual effects.

Appendix A: Playtesting Notes

Alpha Milestone:

- Car Felt a bit slow and Hard to control

Beta Milestone:

-Car is a bit faster than alpha but isn't getting the sense of speed
-Enemies felt mindless

Final Milestone:

- The gameplay has came around a huge challenge and the controls feel fine, along with the enemies feeling a bit more challenging.