



## **Final Project - GDD**

**Game Name: HYPER RACING**

**Team Name: Drift Logic**

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### **Instructor Name:**

Ms. Saba Ghani

### **Group Members:**

Abdul Rafay (21L-5497)	Project Lead & Game Mechanics
Isbah Malik (21L-1843)	Level Design
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# 1. Game Overview

## Game Concept

The **HYPER RACING** is a fast-paced **arcade-style mobile racing game** that combines high-speed competition with power-up mechanics. Players race against AI opponents ("drivatars") on dynamic tracks, using boosts and projectiles to gain an edge. The game emphasizes accessibility, quick sessions, and progression through unlockable content.

## Game Genre

- **Arcade Racing** (Non-simulation)
- **Action-Combat Racing** (Power-ups, offensive/defensive abilities)

## Target Audience

Our game is designed for Mid-Core players who want fast, dynamic racing with a mix of strategy and combat.

- **Mid-core gamers:** Players who enjoy racing with action but don't want hardcore simulation.
- **Mobile gamers:** Perfect for quick, high-energy gaming sessions.
- **Fans of power-up racing:** If one loves Blur or Mario Kart, this game is for you.
- **Customization lovers:** Unlockable skins, cars, and upgrades add a sense of progression.

Short, intense races keep gameplay exciting, while progress-based rewards encourage daily play. This mix of strategy, competition, and progression makes it a thrilling mid-core racing experience.

## Unique Selling Point (USP)

The unique selling point of our game lies in its exciting power-up mechanics. During races, players can collect power-ups like NOS boosts for temporary speed increases and projectile power-ups to "confuse" rival "drivatars", adding a fun layer of strategy to each race. These power-ups create dynamic and fast-paced gameplay, allowing players to turn the tide of a race with the right timing and tactics. The combination of easy-to-learn controls, competitive drivatars, and these unique power-ups offers a casual yet thrilling racing experience, perfect for quick gaming sessions on mobile devices.

# 2. Story & Setting

## Game World & Environment

The game is set in a variety of dynamic, stylized racing environments designed to offer a fun and engaging experience. These environments range from stylized versions of real-world tracks to futuristic circuits and colorful creative locations (in the future), all aimed at providing players with visually appealing yet accessible tracks. The racing locations are designed with simplicity in mind, focusing on exciting track layouts rather than highly detailed environments, making them ideal for quick and casual gameplay.

In these tracks, players race against programmed "drivatars," opponents who maintain competitive behavior, ensuring that every race feels dynamic and challenging. The game is optimized to run smoothly on mobile devices, offering fast-paced races perfect for short gaming sessions. To further enhance the excitement, players can use power-ups like NOS boosts and the projectile ability to disrupt their opponents, adding strategic elements to each race. These power-ups, combined with the vibrant and varied track designs, make the game world feel alive and interactive without overwhelming the player.

## **Main Character**

This game in particular will focus on the player's car which they might be able to personalise to allow a sense of progression. These cars will follow a sleek aesthetic that will make them stand out on the tracks. The players' in-game avatar will be represented by their chosen car which will also serve as their identity on the tracks. This approach will keep the game consistent and ensure engagement.

## **3. Gameplay Mechanics**

### **Core Gameplay Loop**

The core gameplay loop is centered around fast-paced racing with the ability to use power-ups. Players start by entering a high-speed competition, choosing from two available modes: Easy and Difficult, against programmed opponents, or the "drivatars." Throughout the race, they collect and use power-ups like NOS boosts for speed bursts or projectiles to hinder rival cars. Winning races earns rewards like coins which the players can then possibly use to unlock in-game content like skins or tracks, encouraging them to continue improving their performance. Each race is designed to be quick but engaging making it ideal for short play sessions. The combination of skill-based driving, power-up usage and competitive rivals keeps the gameplay loop exciting and replayable.

### **Player Objectives**

In this fast-paced, single-player racing game, the player's primary objective is to outrun opponents and cross the finish line first while utilizing power-ups strategically. The player must navigate through tracks, and use speed boosts (NOS) and offensive power-ups to gain an advantage. Winning races unlocks new in-game content enhancing the overall gameplay experience.

### **Game Controls**

The game features intuitive on-screen controls designed for mobile gameplay, ensuring smooth handling and easy access to power-ups. The controls would be as follows:

1. Virtual left/right buttons for steering.
2. A gas pedal button for acceleration.
3. Brake button to slow down.

- 4. The power-up button to use collected weapons or defensive items.
- 5. The pause button to pause the game and access settings.

## 4. Progression & Economy

### In-Game Currency

- **Coins:** Earned from races (more for higher positions).
- **Gems (Optional):** Premium currency for faster unlocks.

### Unlockables

Content	Unlock Method	Example Cost
Tracks	Win X races or reach Level Y.	"Neon City" at Level 3.
Car Skins	Purchase with coins.	"Flame Decal" (500 coins).

### Progression Systems

- Levels: **Earn XP from races** → **Unlock rewards at milestones.**

## 5. Technical Specifications

### Platform

- **Primary:** Mobile (iOS/Android).
- **Engine:** Unity.

### Art Style

- **Low-poly 3D** with bright, stylized textures.
- **Optimized assets** for mobile performance.

### Sound Design

- Music: **High-energy electronic tracks.**
- SFX: **Engine roars, power-up activations, collision sounds.**

## 6. References & Inspirations

1. **Death race:** It takes battles between armored vehicles where survival is just as important as speed.
2. **Blur:** Players can grab boosts, shields, and offensive abilities mid-race, creating a dynamic battlefield where strategy and reflexes determine victory.
3. **Mario Kart (Battle Mode):** While lighthearted, Mario Kart’s battle mode showcases fun, pick-up-based combat in a racing setting.
4. **Asphalt 8:** Fast-paced arcade racing with nitro boosts, stunts, and high-speed action.

The game brings together racing and combat for a fast, fun, and action-packed experience. With

dynamic power-ups, fast-paced gameplay every race feels fresh and challenging. The progression system, unlockable content, and immersive environment ensure long-term engagement, making this a must-play arcade racing experience on mobile.