Product Backlog aka Priority List

1. Core Gameplay Mechanics (Must-Have)

- **Timer System**

o   Display a countdown timer on the screen.

o   Timer decreases as the game progresses.

o   Timer pauses when the game is paused.

o   Timer negatively iterates by (x) when hitting an obstacle

- **Acceptance Criteria:**

o   The timer is visible on the game screen.

o   The timer starts counting down when the game begins.

o   The timer pauses when the game is paused.

o   The timer stops when the game ends.

- **Obstacles**

o   Moving obstacles that reduce time on collision.

o   Different obstacle models for variety.

o   Potential difficulty scaling for obstacles.

- **Acceptance Criteria:**

o   Obstacles appear on the screen while the game is active.

o   Obstacles move in a set or randomized pattern.

o   Colliding with an obstacle decreases the timer.

o   Different obstacle models exist in the game.

o   Obstacles may have varying difficulty levels.

2. User Interface (Must-Have)

- **Menu System**

o   Start button.

- o Quit button.

- o Display the player's top 5 scores.

- **Acceptance Criteria:**

- o The menu displays a **Start** button that begins the game.

- o The menu displays a **Quit** button that exits the game.

- o The menu shows the **Top 5 player scores** when available.

- o The menu layout is clear and accessible.

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- **Game UI**

- o Characterized player ('Bucky').

- o Buttons for movement.

- o Three lanes for navigation.

- o Animations for:

- ▪ Collisions

- ▪ Start

- ▪ Finish

- ▪ Lane switching

- **Acceptance Criteria:**

- o The player character ('Bucky') is visible and identifiable.

- o The game has **buttons for movement** that respond to input.

- o The game has **three lanes** for navigation.

- o The game includes animations for:

- ▪ Moving between lanes.

- ▪ Colliding with obstacles.

- ▪ Starting the game.

- ▪ Finishing the game.

3. Optional Enhancements (Nice-to-Have)

- **Settings Menu**
- o Adjust difficulty, volume, or other game settings.
- **Acceptance Criteria:**
- o The settings menu exists and can be accessed from the main menu.
- o Players can adjust at least one game setting (e.g., sound, difficulty).
- **Custom Cars**
- o Option for players to select different cars.
- **Acceptance Criteria:**
- o The game allows players to select different cars before starting.
- **Tutorial**
- o Guide to help new players learn controls and mechanics.
- **Acceptance Criteria:**
- o A tutorial mode exists that explains controls and mechanics.
- o The tutorial can be skipped or exited at any time.