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| **Project Design Document** | |  | | --- | | *11/12/2023*  Michelle | |

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| **Project Concept** | | | |
| **1** **Player Control** |  | You control a   |  | | --- | | *Race car* | | in this   |  |  | | --- | --- | | *Top down* | game | |
|  | where   |  | | --- | | *Arrows* | | makes the player   |  | | --- | | *Move and interact with other objects in the game* | |

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| **2** **Basic**  **Gameplay** |  | During the game,   |  |  | | --- | --- | | *Oncoming cars and gas stations* | appear | | from   |  | | --- | | *The top of the screen* | |
|  | and the goal of the game is to   |  | | --- | | *Fuel up at gas stations to gain score while avoiding oncoming cars* | | |

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| **3** **Sound**  **& Effects** |  | There will be sound effects   |  | | --- | | *When fueling up and hit by other cars* | | and particle effects   |  | | --- | | *When (fueling up) and hit by other cars* | |
|  | [*optional*] There will also be   |  | | --- | | *Background music* | | |

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| **4** **Gameplay**  **Mechanics** |  | As the game progresses,   |  | | --- | | *More gas stations and cars spawn* | | making it   |  | | --- | | *More difficult to fill up gas tank* | |
|  | [*optional*] There will also be   |  | | --- | | *description of any other gameplay mechanic(s) and their effect on the game.* | | |

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| **5** **User**  **Interface** |  | The   |  | | --- | | *score* | | will   |  | | --- | | *Increase (or decrease)* | | whenever   |  | | --- | | *Fueling up at gas stations (or hit by cars)* | |
|  | At the start of the game, the title   |  |  | | --- | --- | | *“Fuel Up”* | will appear | | | and the game will end when   |  | | --- | | *Hit by other cars thrice* | |

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| **6** **Other Features** |  | |  | | --- | | * *When player fuels up at gas station, it will have the power to bounce off (destroy) oncoming cars (but the fuel up power will only last for a certain period of time)* * *Ability to restart the game* | |

# **Project Timeline**

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| --- | --- | --- |
| **Milestone** | **Description** | **Due** |
| **#1** | |  | | --- | | * *Project and camera set up with primitive objects for all gameplay objects* | | |  | | --- | | *mm/dd* | |
| **#2** | |  | | --- | | * *Player can move in all directions (within play area)* | | |  | | --- | | *mm/dd* | |
| **#3** | |  | | --- | | * *Objects randomly spawning from top of screen* * *When player collides with other cars, they bounce* * *(After player collides with gas stations, they disappear)* | | |  | | --- | | *mm/dd* | |
| **#4** | |  | | --- | | * *Primitive objects and background replaced with real 3D assets* | | |  | | --- | | *mm/dd* | |
| **#5** | |  | | --- | | * *Score/ gameover mechanics programmed* * *Particle and sound effects implemented, including scrolling background* * *UI* | | |  | | --- | | *11/26* | |
| **Backlog** | |  | | --- | | * *Feature on backlog - not a part of the minimum viable product* * *Feature on backlog - not a part of the minimum viable product* * *Feature on backlog - not a part of the minimum viable product* | | |  | | --- | | *mm/dd* | |

# **Project Sketch**

