Project Synopsis

Crazy Taxi

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Object Oriented Programming

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Contents

1 Introduction

Crazy Taxi is a game where the player controls the movement of a car left or right. The player has to avoid hitting any obstacles or oncoming traffic as long as the timer is running to win the game. If a player hits any obstacle or any of the other vehicles, a life is lost. If the player loses all lives, the game is over.

2 Assets

2.1 Driving Vehicles

There will be a variety of different vehicles to choose from in the game, and each vehicle will be available in multiple colors as well.

2.2 Traffic Vehicles

For the traffic vehicles, there will be a number of different kinds and colors of vehicles which will be randomly generated at each point in the game.

2.3 Objects

There will be assets for different objects including:

1. road blocks

2. traffic cones

3. barricades

4. trees

2.4 Time of Day

We want to introduce the aspect of the time of day in the game, which can be set to Day or Night or Automatic. And according to that setting the background, sky and the astral bodies will be shown.

3 Gameplay

3.1 Start Menu

The Start Menu that will be displayed when the game is ran will contain multiple options including:

1. New Game

2. Select Vehicle

3. Time

4. Leaderboard

5. Instructions

3.2 Controls

The controls of the game will be simple, either left and right arrow keys or "A" and "D" keys would be used to shift lanes in the game in order to dodge on coming traffic or objects.

3.3 Stats

The following stats will be added to the game and will be shown in the top right corner of the screen:

1. Lives

2. Time

3. Points

The game will begin with 3 lives and each time the player hits another car or an object, they will lose a life. And as they cross more and more vehicles/objects they will gain points accordingly.
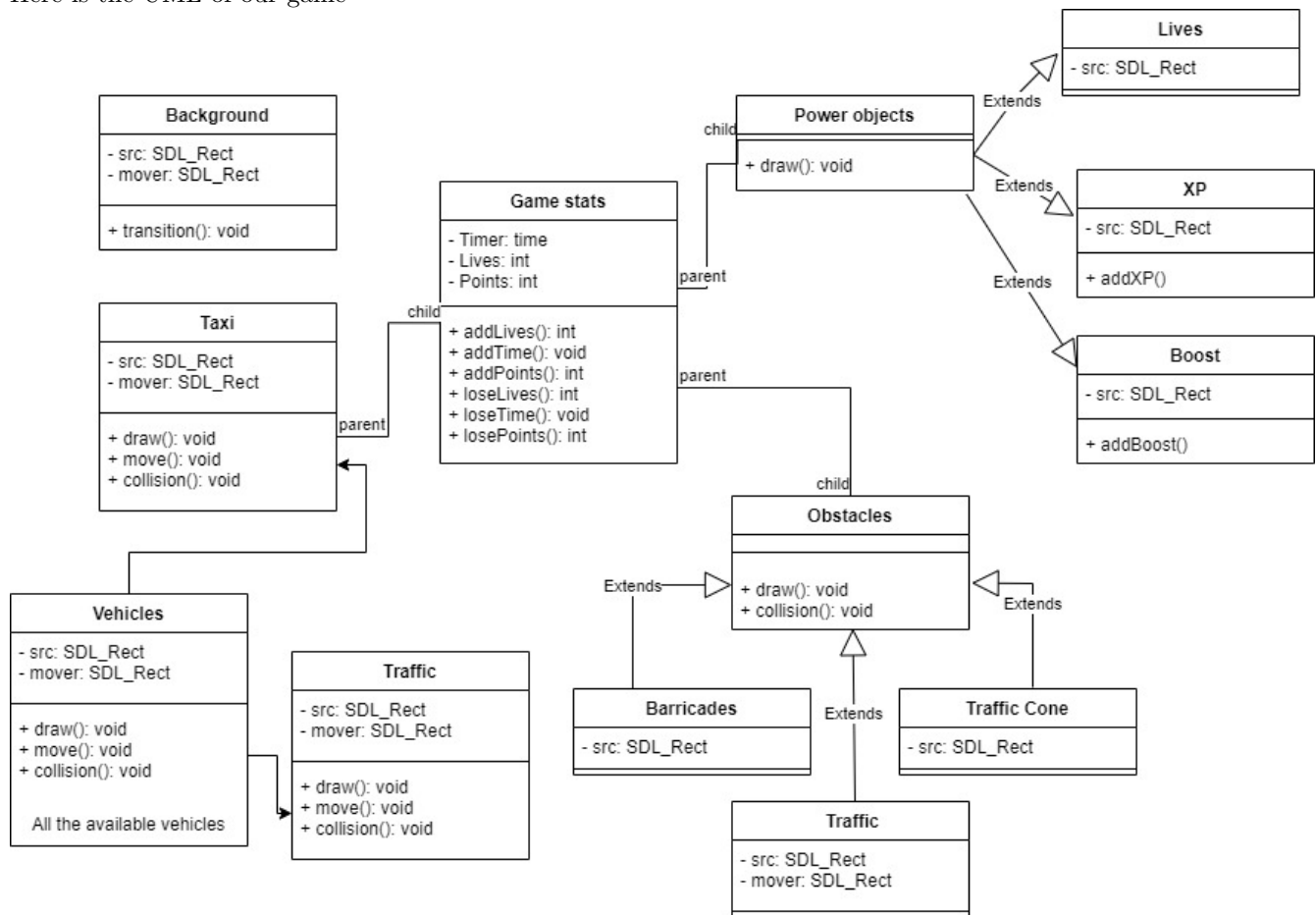
3.4 Power Objects

Along will traffic and obstacles on the road, there will be power objects available as well, which the user can consume to gain certain abilities, here a few examples:

1. XP multiplier

2. Boost

3. Extra Lives

4. Shields

4 UML

Here is the UML of our game

5 Sprites

Here are a few examples of the sprites of the vehicles and objects that the game will contain.

Figure 1: Courtesy: https://www.pngitem.com
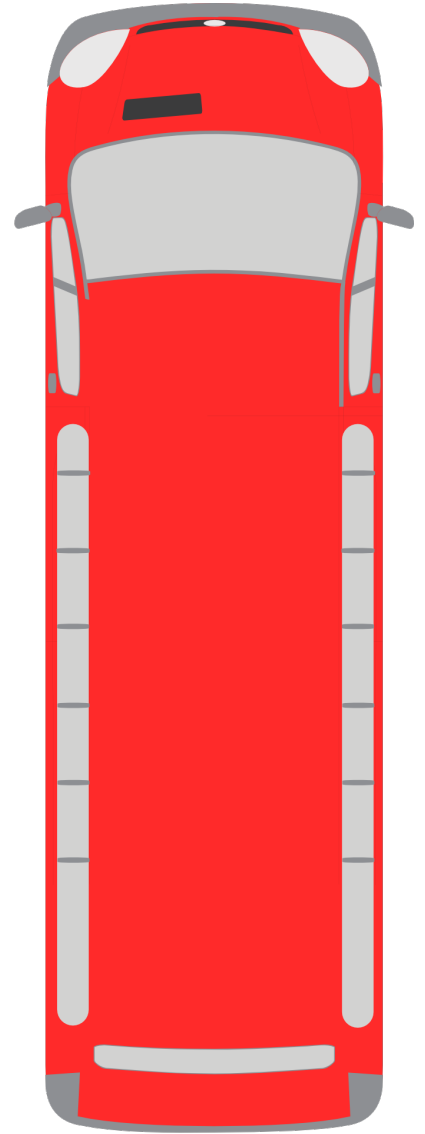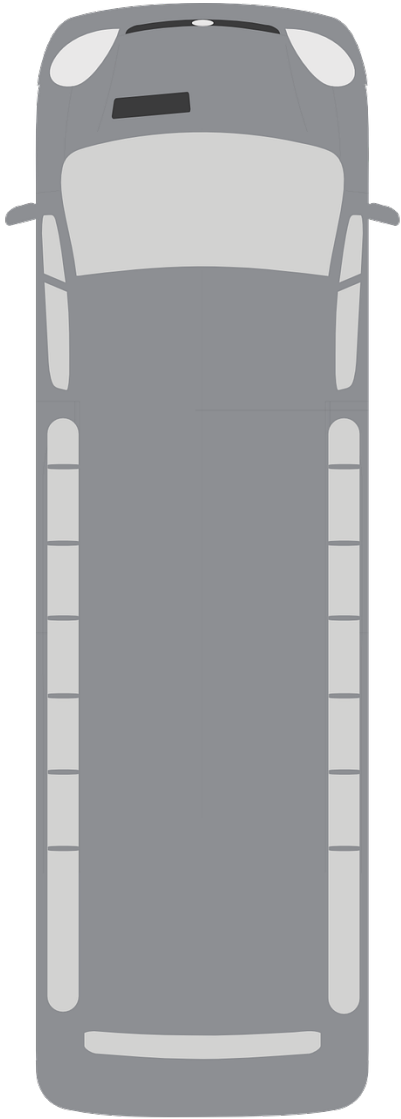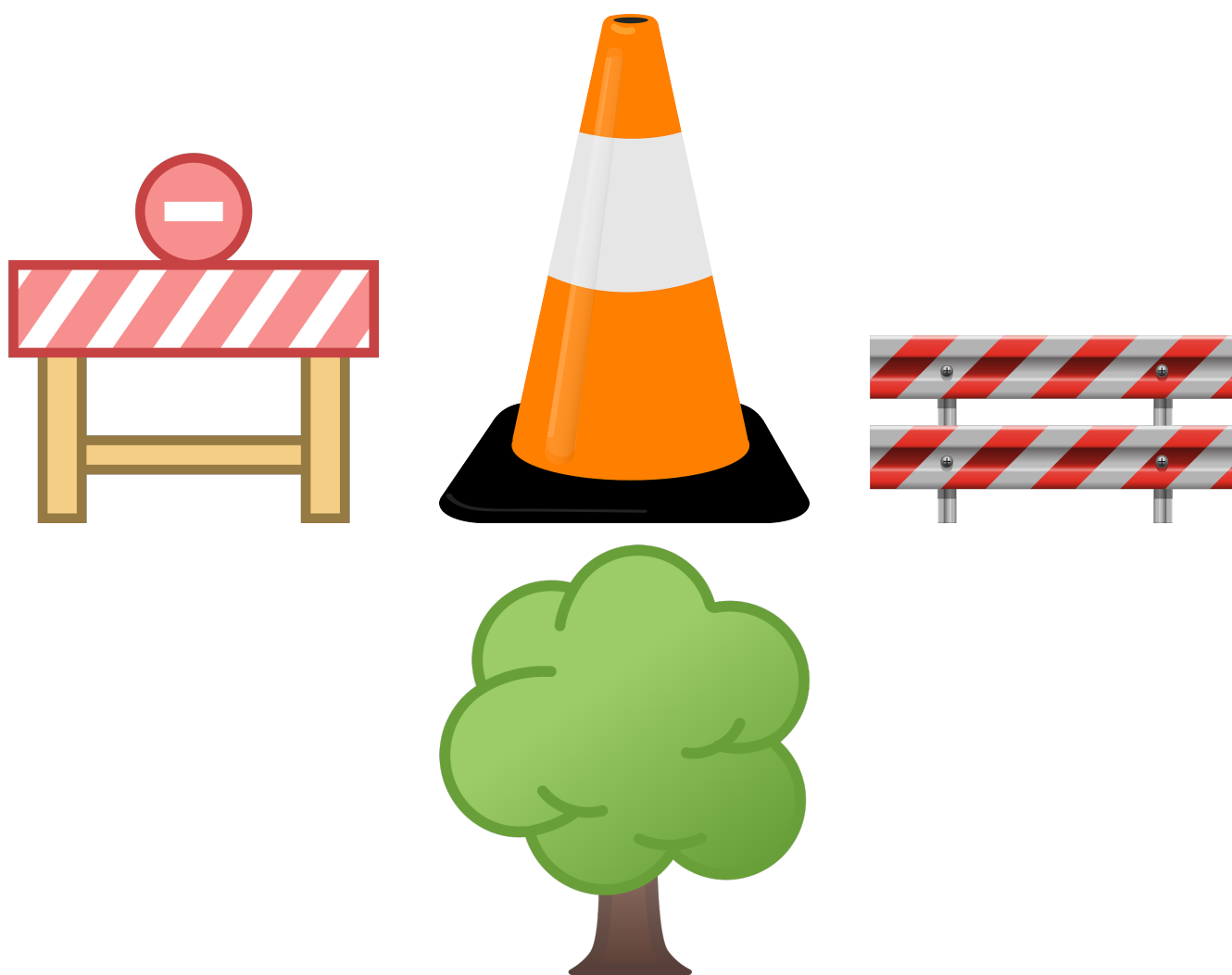

Figure 2: Courtesy: https://www.pngitem.com

Figure 3: Courtesy: https://www.pngitem.com

Figure 4: Courtesy: https://www.pngitem.com