**Project Report**

**Project Title: Zoom Car Game**

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**Plot**

The person driving the car goes by the name “Zoom.” He is trying to escape the police after robbing a bank. The mission of the player is to not be caught by the police car behind him while going against the traffic. The police car will keep chasing Zoom wherever he goes. The speed of the zoom car varies depending on the collectables the player collects on the road.

**Features**

**Health**

When the game starts, the player will be given three lives. Every time zoom collides with other cars, the player loses a life. Once the player losses all three lives, the game will be over. If a player collects the heart shaped collectables on the road, he’ll get one additional life. The number of lives a player has will be displayed next to the heart-shaped icon. Health does not matter if the car gets busted by the police.

**Bombs**

Bombs are randomly generated collectibles throughout the course. When the car collects them, it’ll be able to destroy every car around it for 3 seconds. But other cars will appear on the road once the player passes that area.

Code Working: We made it possible by disabling the display of the traffic and disabling the collisions with traffic as well, as soon as the user hits spacebar.

**Boosters**

Boosters are rocket-shaped collectables randomly placed on the road. The player will not be able to find as many boosters as the other collectables. However, if the player takes it, the car will automatically change to a rocket and it’s speed increases than normal. It will turn back to being a car, if the rocket collides with two cars in the traffic.

Code Working: We have car state which allows us to change the display of the car as the state of car changes (zoom or booster). There’s a counter as well which checks the collision of car in booster state to change it back to normal zoom state after 2 collisions. We increase the speed of car by using the Boolean variable (boosterValue).

**Traffic**

These are cars that are against the zoom car and whenever zoom collides with them it will lose 1 life. The cars in the traffic have different colors and shapes.

Code Working: We have a list of traffic where we appended all the car objects and displayed them. They keep on coming back after they go down the screen as we have a loop which changes its argument y-coordinate to send it back on the screen.

**How to play the game**

When the player opens the game, the first thing he sees is a menu with two options. The first option is “Play game”. If the player hits “Shift”, the game will automatically start. The game is played using arrows of a keyboard. After collecting a bomb, the player has to use the space bar to use it and destroy cars around the car. The other collectibles can be collected just by colliding with those objects. The other option is “Instructions”. The button to see the instructions is “Control”. All the guidelines are given on how to play the game and how the collectables are used.

**The components used to build it**

**Programming Language and Software**

The game is written in Python programming language and the developers have used “Processing” to work on Graphical User Interface.

**Images**

Most of the images have been downloaded from the web. However, they have been modified in order to integrate them within the Game.

**Audio and Music**

All of the audios and music included in the game are downloaded from the web. The audios have also been adjusted to integrate with the game.

**How to run the Game**

To run the game the player needs to download processing from [www.processing.org/download/](http://www.processing.org/download/) and also clone the game from GitHub. Then he has to open the main game file: Zoom.pyde in processing and play it in processing in order to play the game.

**Showcase**

The game will be showcased on the Intro Arcade exhibition on December 15, 2018.

**Screenshots**



