

Car Racing Game - PYGAME

GROUP 3 Team 4

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Abstract

Gaming is today's much needed part for teens. Pygame is such a tool from which we can make different games from python language . Our group created a 'Survival Death Valley' Car Racing game . Game is like saving our car from crashing. It is not just like a simple game but we also have many features like different sound effects, background images and moving effects. We have also made the project interesting by making car speed at an appropriate pace for users. We have made our code a bit big but it's to make the game run more systematically. We also add multiple obstacle parts to make the game more interesting.

Introduction

Car Race Strategy Board Game project is written in Python. The name of this game is "Survival Death Valley". It was created using the Pygame Module. This project was designed with a simple User Friendly Interface. It uses simple control functions to control the car. Talking about the gameplay, it is a strategic car racing 2-D game. The player can control the car via keyboard binding(Left Arrow Key to move leftwards, Right Arrow key to move rightwards). Talking about the game rules we can move sideways to dodge from all the upcoming cars .The Goal of the game is to avoid all the cars moving towards you and gain score as you continue to run. The game will stop after you have been hit by the enemy car. On running the program, the window will pop up and the program will run according to the flowchart of the game.

System Requirements

Python should be installed (use python 3.7. 7 or greater, we use python 3.9.0)

Pygame module should be installed in the IDE

A text editor to write code, we used 'VS code'

Make sure IDE support basic Linux GUI's

Basic PC Requirements:

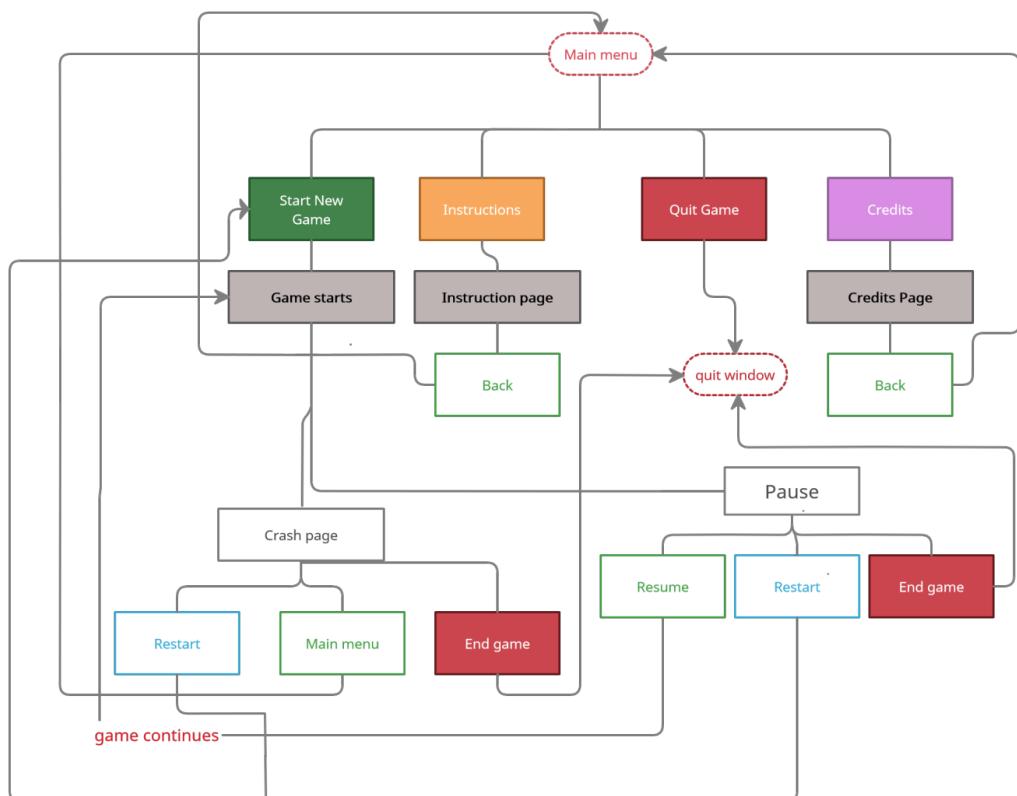
64 Bit windows 7 (or higher) or OS X 10.11 (or later)

Minimum RAM Required (4GB R.A.M)

Hardware: Basic things and audio output (since our game play audio)

Images and audio files and code should be in same directory to run the code

Flowchart



Future Aspect

How the game can be improved: The size of the road can be reduced to give some space to add trees and some houses. At regular intervals, traffic lights with zebra crossing can also be added. Increasing the difficulty of each level could improve the game. Recording a high score and encouraging people to break it ,builds up interest among the people.

References

1.The sources used for documentation, understanding and installing of pygame:

<https://www.javatpoint.com/pygame>

<https://www.pygame.org/docs/>

<https://www.pygame.org/wiki/about>

2.The sources used for learning the basics and understanding functions used in pygame:

<https://www.pygame.org/docs/ref/pygame.html>

<https://www.pygame.org/docs/tut/newbieguide.html>

<https://realpython.com/pygame-a-primer/>

3.The sources used for the tutorial of the pygame:

<https://www.youtube.com/watch?v=FfWpgLFMI7w&t=56s>

<https://www.pygame.org/wiki/tutorials>

<https://www.edureka.co/blog/pygame-tutorial#z4>

<https://www.youtube.com/watch?v=i6xMBig-pP4&list=PLzMcBGfZo4-lp3jAExUCewBfMx3UZFkh5>

4.Links used for finding required images and icons:

<https://www.shutterstock.com/search/top+view+of+cars>

<https://www.flaticon.com/>

<https://www.freepik.com/>

5.Link used for using different fonts in the game:

<https://www.dafont.com/>

6.Resources for clearing doubts regarding few functions:

<https://www.geeksforgeeks.org/>

<https://www.stackoverflow.com/>

Demonstration



INSTRUCTION

THERE IS ONLY ONE WAY TO FIND OUT THE DRIVING SKILLS OF BOB.
DRIVE THROUGH THE DEATH VALLEY WITHOUT COLLIDING WITH CARS
BY STAYING ON THE ROAD.

YOUR SCORE IS BASED ON THE NUMBER OF CARS YOU PASSED.

BACK

CONTROLS

P : PAUSE

ARROW LEFT : LEFT TURN

ARROW RIGHT : RIGHT TURN

ARROW UP : ACCELERATOR

ARROW DOWN : BRAKE

A screenshot of the game showing a black and orange muscle car driving on a road next to a chain-link fence and a wooden fence. The car has a prominent front grille and headlights.

CREDITS DONE BY

BACK

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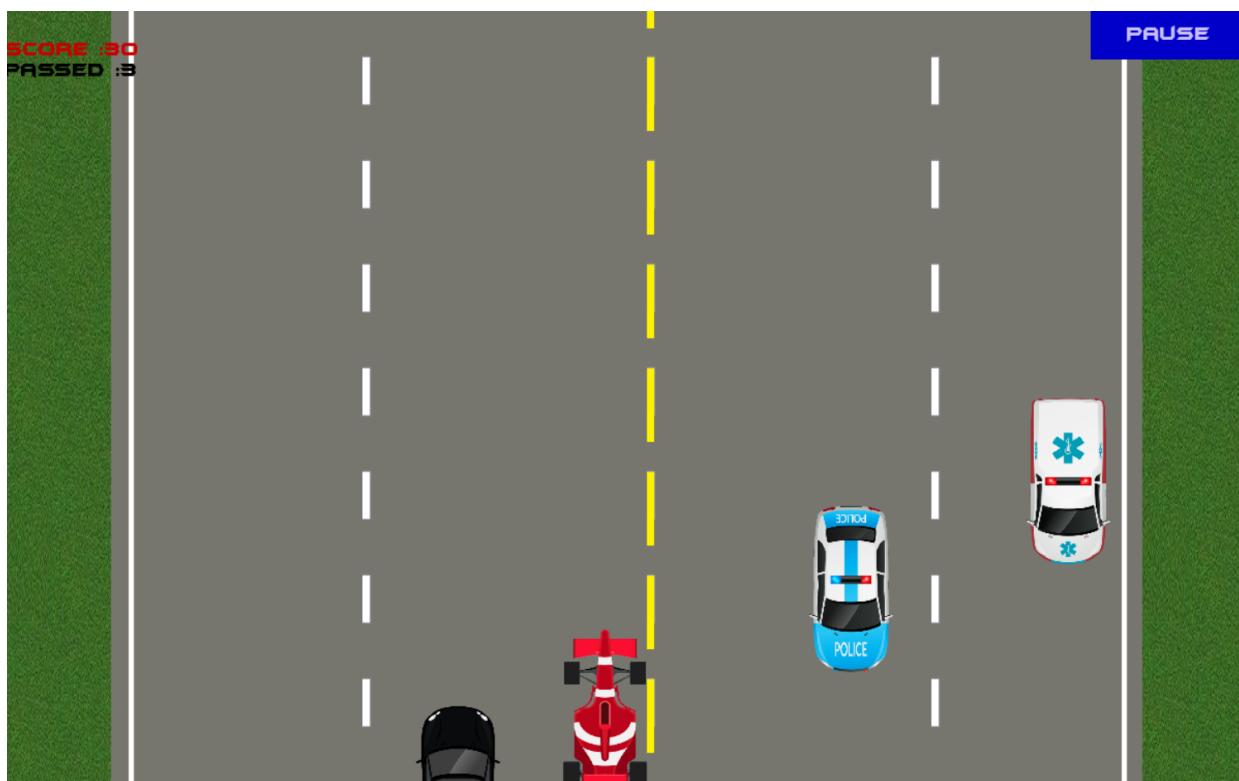
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Individual Contribution

PRUDHVI NATH REDDY SAGILI(**IMT2020082**):

```
countdown_background()
score_system(passed,score)
background()
car(x,y)
incomming_car(img, img1, img2, car1_x, car2_x, car3_x, car1_y, car2_y,
car3_y)
randimg1()
randimg2()
game_loop()
```

BALAJI SANKAPAL (**IMT2020090**):

```
countdown_background()
score_system(passed,score)
background()
car(x,y)
incomming_car(img, img1, img2, car1_x, car2_x, car3_x, car1_y, car2_y,
car3_y)
randimg1()
randimg2()
game_loop()
```

NANDULA SATYA PRASANNA REDDY(**IMT2020096**):

```
introduction()
button(msg,x,y,w,h,ic,ac,action=None,score=None)
credits()
instructions()
pause_game(score)
unpause_game()
countdown()
text_objects(text,font,color)
crash(score)
```

JAINAV SANGHAVI (IMT2020098):

```
introduction()
button(msg,x,y,w,h,ic,ac,action=None,score=None)
credits()
instructions()
pause_game(score)
unpause_game()
countdown()
text_objects(text,font,color)
crash(score)
Music System
```

Mode of Communication:

- Discord:

Created server to Discuss and solve Doubts regarding Project code, used screen share feature to share, discuss and write code simultaneously, to set up meetings to share ideas .

- Zoom:

To set up meetings to discuss ideas