Alexis Evans

Cs120

Apr 25 2024

Final Game Project

Game objective: user is a red car driving around a track freely, collect coins for 30 seconds and beat your previous score

Car png: https://openclipart.org/detail/218068/pixel-car-red-front

Race track:

https://thumbs.dreamstime.com/b/cartoon-race-track-top-view-curves-finish-line-flat-design-cartoon-race-track-figure-top-view-191145234.jpg

Background music: https://opengameart.org/content/happy-arcade-tune

Coin:

https://opengameart.org/content/coins-pixel-art-silver-gold-crystal-and-more

Coin sound effect: https://opengameart.org/content/picked-coin-echo

Sprites:

- redCar (image)

- Directions (label)

- btnPlay (button)

- btnQuit (button)

- lblScore (label)

- lblTime (label)

Functions:

- Class: coin

- Def: reset

- Class: redCar

- Def: process of car direction

- Class: score

- Class: timer

- Class: game screen

- Def: process of gameplay

- Class: instructions page

- Def: process of buttons

- Def: main game

Start by inputting pygame, simpleGe, and random

Import coin sprite*

Class coin

    Init scene

        Super init

        Image coin.gif

        Set size to 85, 85

        Reset

    Def reset

        Y gets random screen height

        X gets random screen width

Import car sprite

Class redCar

    Init scene

        Super that init

Set image to redCar.png

Set size to 40, 25

Process

Left arrow pressed

Turn by 3.5

Right arrow pressed

Turn by -3.5

Up arrow pressed

Forward 5

Down arrow pressed

Forward -3

Class score

Def init

Super init

Text "Score: 0"

Center at 100, 430

Class time

Def init

Super init

Text "Time left: 30"

Center at 540, 430

Game

Init scene

Super the init

Background fill (rgb color)

Set background image to "track"

Insert redCar sprite

Input button "quit" or btnQuit

Text "Quit"

Center at 540, 50

Pygame music "happy.mp3"

Pygame music volume 0.1

Pygame music play -1

Coin sound: " coinSound.wav"

Number of coins: 1

Score start at 0

Score label

Timer

Total time 30 seconds

Time label

Coin

Range number

Append

Sprites list

- redCar

- btnQuit

- lblScore

- lblTime

- Coin

Process

  For Coin

    If coin collides with the car

      Coin resets

      Add 1 to score

      Update score label text

    Timer text updates with time
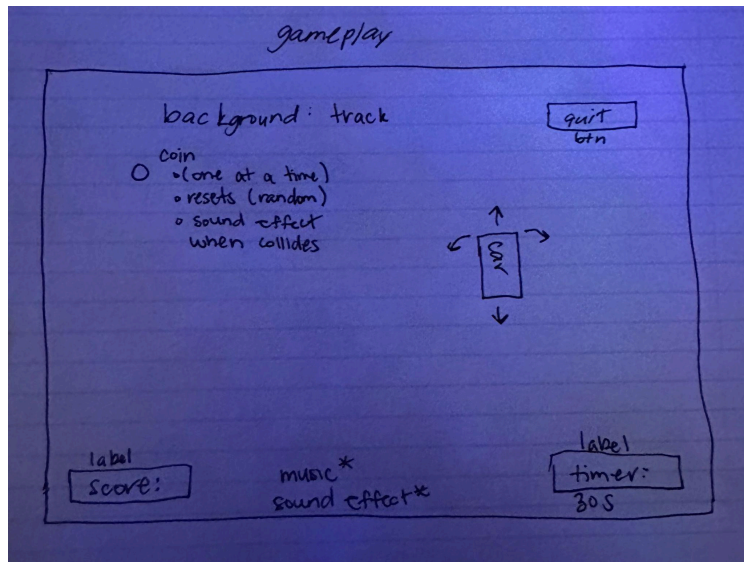
    If timer gets to lower than o seconds

      Print updated score

      stop

  If btnQuit is clicked

    Response "quit"

    Stop

Class Instructions

Init scene

Super that init

Previous score

Set background image as "track"

Response "quit"

Directions label

Directions text:

""You are a race car! Move with left, right, up, and down arrow keys. Drive around freely and collect coins in the time provided. Have fun!"

Directions centered at 320, 200

Directions sized at 400, 250

Insert play button or "btnPlay"

Text "Play"

Center button at 145, 400

Insert quit button or "btnQuit"

Text "Quit"

Center button at 495, 400

Label score

"Last score: 0"

Center at 320, 400

Text includes previous score

Sprites: directions, btnPlay, btnQuit, lblScore
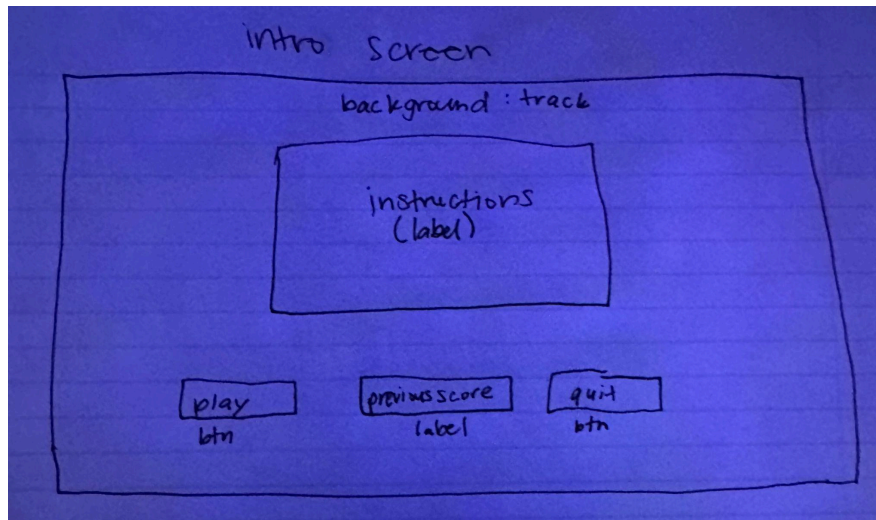

Process

    If play button is clicked

        Play response

        stop

    If quit button is clicked

        Quit response

        stop

Intro Screen

background : track

instructions (label)

play btn

previous score label

quit btn

Main function

    Keep going

    Last Score starts at 0

    While keepgoing

        Instructions insert with last score

        Instruction starts

        If response is play

            Play game

            Game starts

            Last score updates to game score

        Else

            Keepgoing gets false

If name equals main

    Main play