Architectural Design Of Pygame Project
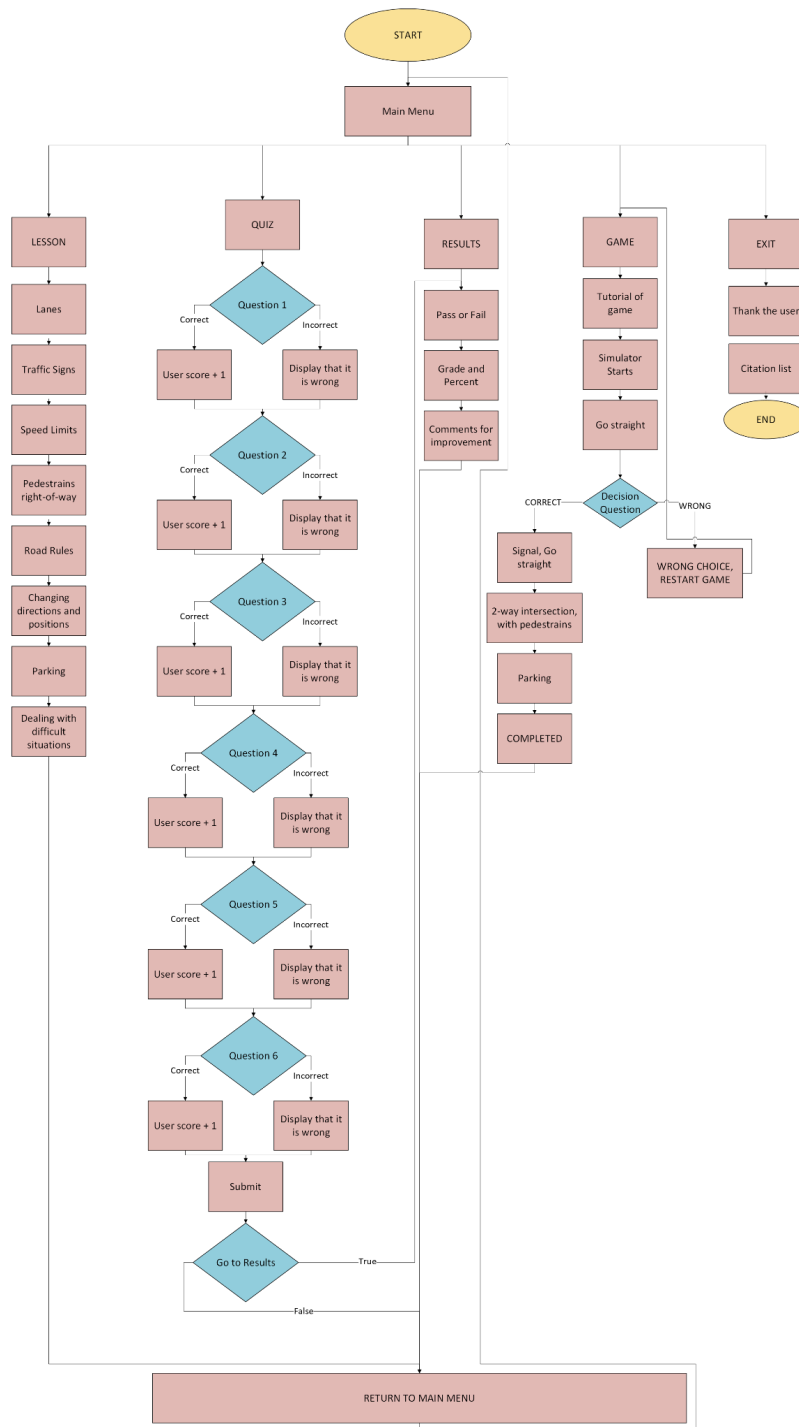
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[Flowchart link](#)

```
                              START
                                |
                            Main Menu
    _____|_____|_____|_____
   |                |                |                |                |
LESSON            QUIZ            RESULTS           GAME             EXIT
   |                |                |                |                |
 Lanes         Question 1       Pass or Fail    Tutorial of      Thank the user
   |         Correct / Incorrect      |            game               |
Traffic Signs  User score + 1 /  Grade and     Simulator        Citation list
   |          Display that it    Percent         Starts              |
Speed Limits   is wrong            |                |               END
   |                |          Comments for     Go straight
Pedestrains    Question 2     improvement           |
right-of-way  Correct / Incorrect              Decision Question
   |          User score + 1 /              CORRECT / WRONG
Road Rules    Display that it    Signal, Go      WRONG CHOICE,
   |           is wrong          straight        RESTART GAME
Changing            |               |
directions and Question 3      2-way intersection,
positions     Correct / Incorrect  with pedestrains
   |          User score + 1 /      |
Parking       Display that it     Parking
   |           is wrong             |
Dealing with        |           COMPLETED
difficult      Question 4
situations    Correct / Incorrect
              User score + 1 /
              Display that it
               is wrong
                    |
               Question 5
              Correct / Incorrect
              User score + 1 /
              Display that it
               is wrong
                    |
               Question 6
              Correct / Incorrect
              User score + 1 /
              Display that it
               is wrong
                    |
                 Submit
                    |
              Go to Results
              True / False
```

RETURN TO MAIN MENU

Start Button

- Takes the user to the Main Menu
- Displays all available options

Option 1: LESSON

- Opens the lesson section
- Covers the following topics:

  - Lanes
  - Traffic signs
  - Speed limits
  - Pedestrians' right-of-way
  - Road rules
  - Changing directions and positioning
  - Parking
  - Dealing with difficult situations
- Returns the user to the Main Menu after completion

Option 2: QUIZ

- Presents 6 questions one at a time
- For each question:
  - Correct answer adds +1 to the user's score
  - An incorrect answer displays a message indicating it is wrong
- Requires the user to press Submit after Question 6
- Sends the user to the Results page
- Allows the user to return to the Main Menu

Option 3: RESULTS

- Displays Pass or Fail status
- Shows grade and percentage
- Provides comments for improvement
- Returns the user to the Main Menu after viewing

Option 4: GAME

- Launches the driving simulator
- Simulator starts automatically
- Includes the following scenarios:
  - Tutorial of game
  - Go straight
  - Decision question

■ Wrong choice restarts the game
                        ■ The correct choice allows progression
                ○ Signal: go straight
                ○ Two-way intersection with pedestrians
                ○ Parking
        ● Marks the game as completed
        ● Returns the user to the Main Menu

Option 5: EXIT

        ● Displays a thank-you message
        ● Redirects the user to the citation list
        ● Ends the program