Technical Specification Design (TSD)

Cars & Peds

SUMMARY

The game needs to have other cars and pedestrians in place to give the game a more realistic feel and allow the player a wider range of driving situations to practice.

GOALS

We will be able to use the other cars and peds to:

* Monitor if the player:
  + Hit a ped
  + Hit another car

Future Goals:

* Count each traffic violation with a specific counter in order to generate a report at the end of the game.

SOLUTION

Creating 2 new classes under RoadUsers to handle computer-controlled cars and pedestrians.

CODE DESIGN

|  |  |
| --- | --- |
| **OtherCar**  **Class** | |
| +init() | Initialize the OtherCar object |
|  |  |

|  |  |
| --- | --- |
| **Ped**  **Class** | |
| +init() | Initialize the Ped object |

CHANGES IN EXISTING CODE

We would have to change the RoadUsers module to add these 2 classes.

TEST PLAN

* Manual tests – make sure:
  + Each road user is placed where it should be and moves like it should.
  + The system can recognize when the player is colliding with each of them.
  + The system counts each collision, and adds it to the corresponding counter.
* See if we can make the code better – more efficient and more lightweight.

WORK

|  |  |
| --- | --- |
| Task | Hours |
| Design and build relevant classes | 12 |
| Place all the road users on the screen | 24 |
| Build collision detection | 12 |
| Test & debug | 8 |
|  |  |
|  |  |