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| E:\AVPTI\ISRO\Logos_RKM\avpti.png  **Affiliated to Gujarat Technological University** |
| SEMESTER 3 COMPUTER ENGINEERING DEPARTMENT SCRIPTING LANGUAGE PYTHON(4330701) |
| TURTLE-CROSSING-THE-ROAD-GAME  STUDENTS’ GROUP DETAILS   |  |  | | --- | --- | | DARSHANA DAVE | 226020307046 | | DEV DAVE | 226020307052 | |
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INTRO TO MICROPROJECT

In this Python game, players are engaged in an exciting adventure with the Turtle Crossing the Road. Developed using the Turtle module, the game employs a modular design with several user-defined modules, such as the Player class, Scoreboard class, and Car Manager class. The foundation of these classes is the Turtle class, serving as the parent class that orchestrates various game elements.

At each level, players control the turtle using the up key on the keyboard. The objective is to navigate the turtle upward, avoiding collisions with oncoming cars. If the turtle collides with a car, a game-over message is displayed. However, if the player successfully guides the turtle across the road, the game resets with the turtle returning to its initial position. Additionally, the game intensifies as it progresses, with the speed of the cars increasing and the level advancing, providing an increasingly challenging and engaging experience.

With dynamic gameplay and a responsive interface, this Turtle Crossing game offers an entertaining blend of skill and strategy. By leveraging the Turtle module along with user-defined classes and the time module, players can enjoy an immersive and progressively challenging gaming experience, making each attempt to cross the road an exciting adventure.

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MODULES OF MICROPROJECT

* **PLAYER\_MODULE**:

It handles functionality related to player. It have class player that inherits Turtle class and have attributes of player.it have various functions like go\_to\_start() that set player again to starting position after each level.is\_at\_finish\_line() that check wether player has croseed finish line or not.and move\_up() function that moves player up when up key is pressed

* **CAR\_MANAGER\_MODULE:**

It handles functionality related to cars it create numerous turtle object that is Streched along its width to create rectangular car shape.cars will be randomly generated along y axis and all cars are appended in list initially they will movewith speed of 5 units but after each level it’s spedd will increase by 10 units.It has functions create\_car() that create car randomly on y axis and set it’s attribute and append it in list.move\_car() function will move car backwards.with given speed.and level\_up() function will increases speed after each level

* SCOREBOARD MODULE:

It handles functionality related to scores.it will show the current level.increase level after each successful crossing and show message of game over if player collides with cars

SAMPLE CODE











