



SOFTWARE ENGINEERING

UE21CS341A

5th Semester 2023-24

Mini-Project

| PROJECT TITLE:TRAFFIC CHALLENGER GENERATOR | |
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| TEAM -3 | |
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PROJECT DESCRIPTION:

This software's primary goal is to make the scattered process of viewing, paying, checking vehicles violation history, challen status for the vehicle owner easier by making it available online by providing a convenient setting. Additionally it also intends to provide the traffic police with a user friendly interface to detect a vehicle through its registered registration number, by mapping it with the details in the database and generates a challen

This project is supported by a well designed data base management system that integrates the vehicle data and a user friendly UI is offered that makes the queries made by the user to get accurate results.

Objective of the project:

- The System keeps track of the transactions.
- It is more user friendly: The section such as, registration, license, etc. are combined together in a single window.
- Automated generation of challen.
- Every detail of vehicle is maintained in a database.
- Easier accessibility
- Less time consuming.

Modules:

Module 1: Admin

a) Login: Admin need to login with their valid id and password first in order to access the below given modules.

b) Add User: System allows admin to add user with their basic registration details.

c) Add Vehicle: Admin will add details of Vehicle and user details or select from existing user's and will also assign the card to that vehicle.

d) Add Police: Admin will add details of police authorities who can access the android application, using the id and password provided.

e) Add Laws: Admin will add Law no., Law details, charges, etc. and users / police can view them.

f) View/Edit/Delete Police: Admin can get details of police.

g) View User's: He will see the Users their details and their registered vehicle. There will be a filtering Section.

h) Vehicle Details: Admin can have a look on the added vehicle.

i) Add Penalties: Admin will check vehicle no., and add any Penalties/warrant to it.

Module 2: Police

a) Login: Police will receive an id and password from the admin to login into the system.

b) Check Vehicle: he can scan a card and check of any Crime / Penalties / and Documents and even other vehicles added in that account will be shown.

c) Raise a Fine: He can raise a fine for a vehicle.

Module 3: User

a) Login: User will receive an id and password from the admin to login into the system.

b) View Vehicles: User will get all the details of vehicle added in his account.

c) View Fine: If any fine is raised, he can make a dummy payment, and solve it.

d) View Laws: List of all the laws will be displayed to the user with its details and fine.

e) View status: the status of the challen will be displayed to the user.

Plan of Work:

Phase 1: Project Planning and Requirements Gathering

- Define the project scope, objectives, and constraints
- Identify stakeholders and establish communication channels.
- Gather detailed requirements for each module.

Phase 2: System Design and Architecture

- Create the system architecture, including database structure and
- technology stack.
- Develop wireframes and user interface designs for each module.
- Design the database schema for storing

- Plan for security measures, including authentication and authorization mechanisms.

Phase 3: Database Implementation

- Set up the database system.
- Create tables and relationships based on the database schema.
- Implement data access methods for the application.

Phase 4: admin module implementation

Develop admin module with the following functionalities

- Login page
- Add police, vehicle and user data
- Modify data and control authorization

Phase 5: police module implementation

Develop police module with following functionality

- Police should be able to login to the page
- Check vehicles history
- Generate challen
- Also raise a fine

Phase 6: user module implementation

Develop the police module with the following functionalities

- User should be able to login view his vehicle and access his vehicle's violation history

- User should be able to see the challenges, pay it, and see the challenge status.
- User should be able to read and go through the rules and regulations and safety guidelines.

Phase 8: Integration and Testing

- Integrate all modules and ensure they work together seamlessly.
- Perform thorough testing, including unit testing, integration testing, and user acceptance testing.
- Resolve any bugs or issues discovered during testing.

Product Ownership:

Member 1: admin Module

Member 2: user Module

Member 3: police Module

Member 4: integrate the modules to create a usable software once all the modules and functionalities have been developed.