Software Test Document for Raftaar

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1 Introduction

1.1 System Overview

This project aims at implementing and developing an e cient Automated toll management and automobile security at the city level which will eliminate the need for the physical presence of the tra c police. The authority will be able to keep a track of the user where-abouts and rules violated if any. The main purpose of this system is to help boost the percentage of genuinity of tra c rules in all the people. There will be 6 main steps in this process :

- Registration of User
- Login
- Dashboard
- Toll management
- Automobile security
- Installation of a chip

Toll will be deducted at the toll stations by viewing the number plate of the car.This helps easy scanning and payment.Automatic toll deduction through an app(E-wallet) and linkint it with the owner's bank account.At the same time it ensures that user becomes aware that he has violated the rules and he should be aware now.Police and tra c authorities will be assigned to seize the vehicle once the account balance reaches into -100Rs and they will be updated with owner's details through an automatic mail.

1.2 Test Approach

Test	Description
Functionality Testing	All the links in web pages, database connection, user interaction forms will be tested.
Compatibility Testing	The system will be run on different web browsers to check its compatibility.
Usability Testing	The system will be checked to see whether the website is easy to user interface or not. The content on each page is checked.

Figure 1: Testing Approach

2 Test Plan

2.1 Features to be tested

The software features which are to be tested include:

1. Home Page - TC-1,
2. Add Money in e-wallet -TC-2,
3. Withdrawal - TC-3,
4. Display of Fines & Toll Payments - TC-4,
5. Balance Transcript - TC-5

2.2 Features not to be tested

Not Applicable.

2.3 Testing Tools and Environment

Testing of the website & componenets will require three weeks time. Manual testing approach will be applied.For manual testing,NetBeans IDE is used since this is a desktop application arranged in java. NetBeans is an open source portable software building and testing environment.

3 Test Cases

3.1 Home Page Testing TC-1

3.1.1 Purpose

To verify and validate the details entered by the user.

3.1.2 Inputs

1. User ID
2. Bank ID
3. Car Details

3.1.3 Expected Outputs and Pass/Fail criteria

If all the details entered by the user are correct then on clicking the "Submit" button the user will be redirected to the transaction selection page. If any of the information entered is incorrect, appropriate error message would be displayed.

3.2 Change pin Testing TC-2

3.2.1 Purpose

To help user add money in e-wallet

3.2.2 Inputs

1. User ID
2. Bank ID
3. Amount to be added

3.2.3 Expected Outputs and Pass/Fail criteria

After login, the user can add money in e-wallet to pay toll as well as pay fines.

3.3 Withdrawal Testing TC-3

3.3.1 Purpose

To ensure the transaction process is carried out successfully.

3.3.2 Inputs

1. Withdrawal Amount

3.3.3 Expected Outputs and Pass/Fail criteria

If the amount entered by the user is more than the account balance of the user an error will be displayed asking the user to re-enter the amount or abort the transaction.

3.4 Display of Fines & Toll Payments TC-4

3.4.1 Purpose

The user can check a history of payments done in the criteria of fines and toll payments.

3.4.2 Inputs

1. User ID
2. Car details

3.4.3 Expected Outputs and Pass/Fail criteria

A display of fines and toll payments will be provided for the user

3.5 Balance Transcript TC-5

3.5.1 Purpose

To display the balance transcript when the transaction has been carried out successfully or other-wise.

3.5.2 Inputs

1. Selection of Transcript Option

3.5.3 Expected Outputs and Pass/Fail criteria

If the ow of process is broken due to entry of incorrect details then the transcript will not be displayed.

3.6 Test Cases

Test ID	Test Case	Input	Output	Pass/Fail Criteria
1	Home Page	User ID=100001 Bank ID=XXXX29844 Car details=MH03X1024	Redirect to transaction page	-
2	Add amount in e-wallet	User ID=100001 Bank ID=XXXX29844 Amount=10000/-	Amount added successfully in e-wallet	-
3	Withdrawal	Withdrawal amount=2000/-	Amount withdrawn successfully	-
4	Display of Fines and toll payments	User ID=100001 Car details=MH03X1024	Table of Fines and toll payments	-
5	Balance Transcript	Amount=1000/-	Balance of the user	

Figure 2: Test Cases