Department of Computer Engineering

Academic Term: First Term 2023-24

Class: T.E /Computer Sem – V / Software Engineering

Practical No:	**1**
Title:	**Software Requirement Specification**
Date of Performance:	25-7-2023
Roll No:	9540
Team Members:	Saahil, Aaron, Neil

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding(02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

Signature of the Teacher:

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SAAHIL FERNANDES , 9540 TE COMPS B

1 Abstract

The Vehicle Registration app helps users keep track of their subscription end dates for insurance, PUC, etc. It also centralizes a user's vehicle data in one place, eliminating the need to carry physical documents during inspections.

2 Introduction

Purpose

The purpose of this project is to keep track of the users subscriptions and all the users documents together.

Scope

The Vehicle Registration app is designed to cater to users within our country and provides a range of services tailored specifically for them. It allows users to keep track of their vehicle-related information and subscription end dates, ensuring they comply with local regulations and requirements. By focusing on users within our country, the app can offer more relevant and localized features, making it a valuable tool for vehicle owners in our specific region.

References

1.Digilocker Official Website: https://digilocker.gov.in/
2. Ministry of Electronics and Information Technology (MeitY), Government of India: https://www.meity.gov.in/
3. National e-Governance Division (NeGD), Government of India: https://negd.gov.in/

3 General Description

Product Functions Overview

The vehicle registration app offers the following functions:

- User registration and authentication
- Profile management for updating personal information and profile picture
- The documents are cross checked with the real databases as the user uploads
- The databases keep track of the day when their subscriptions expire
- The user doesn’t have to carry hard copies as these are well authenticated

User Characteristics

The main users of this app are certified driver’s license overs the age of 18.

General Constraints

The system should run on all android and IOS mobile devices.

Specific Requirements

Inputs and Outputs

Input: User Registration

- Full name

- Email address

- Phone Number

- Password

Input: Documents PDF

- Users aadhar card, driver's license

- Various insurance and PUC details with date of issue

Input: vehicle details

- Vehicle name

- Vehicle description

- Price with papers of ownership

- Photo of the vehicle

Output: user owned vehicles

This displays all the vehicles owned by the user with various documents etc.

Output: user details if searched for by authorised device.

Accessed by the users phone number will show all details

Functional Requirements

1. User Registration and Login:

- Users can register using their driver's license.

- Existing users can log in with their credentials.

2. Home Page:

- The home page shows owned vehicles and details of documents.

- Users cannot search for other users details however the police authorities can search for any users details via their authorised account.

- The app provides notifications for expired subscription that have to be renewed.

3. Searching for other users:

- Users cannot search for other users.

- The police authorities can search for any user's details via their authorised account.

4. Profile Management:

- Users can update their profile information, including profile picture and bio.

-These details will be cross checked against the authorised databases.

External Interface Requirements

User Interface: The app will have an intuitive and user-friendly interface, with sections for the home Page, profile, and databases.

Performance Constraints

The app should provide real-time data retrieval and messaging for a seamless user experience, maintaining responsiveness during peak usage.

Software Constraints:

The app will be developed for Android devices using Android Studio and Java programming language.

Hardware Constraints: The app should run on Android devices and IOS devices with internet connectivity.

Acceptance Criteria

Before acceptance, the app will undergo rigorous testing to ensure smooth functionality and bug-free operation. User feedback will be taken into account for improvements, ensuring a flawless user experience.

Post Lab Importance of SRS in Software Development and Requirement Elicitation Techniques

A) Importance of a well-defined Software Requirement Specification (SRS): SRS facilitates clear communication between stakeholders, reducing misunderstandings and ambiguities. It defines the project scope, preventing scope creep and managing expectations. Establishes requirement traceability,
ensuring customer needs are met and validating the final product. Provides a basis for estimations, aiding in project planning and resource allocation. Enables risk mitigation by identifying potential issues
early in the development process. Facilitates change management, helping assess proposed changes' impact. Improves quality assurance by enabling comprehensive testing.

B) Analysis and Improvements of SRS: Common ambiguities: vague language, lack of completeness, conflicting requirements, missing assumptions, inconsistent terminology, ambiguous use cases. Proposed
improvements: conduct stakeholder reviews, use diagrams, define acceptance criteria, document assumptions, address non-functional requirements.

C) Comparison of Requirement Elicitation Techniques: Interviews: Effective for understanding specific needs but time-consuming and resource-intensive. Surveys: Efficient for gathering a broad overview of
user needs but may lack detailed insights. Use Case Modeling: Aids in identifying functional requirements and system interactions, requires a clear understanding of system boundaries. Effectiveness in Gathering User Needs: Interviews capture detailed requirements but are more suitable
for critical projects. Surveys provide quantitative data from a larger audience but lack qualitative depth.
Use case modeling complements other techniques and visually represents system behavior. Ultimately, a
combination of these techniques can ensure a comprehensive understanding of user needs and contribute to a successful software development project.