



384110618-live-mechanic

Software Engineering (Lovely Professional University)

Software Requirements Specification

For

**livemechanic-
clickmechanic.com**

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ACHKNOWLEGMENT

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List of diagrams

- ☐ Diagram of major component of website
- ☐ Data flow diagram
 - ☐ Level 0
 - ☐ Level 1
 - ☐ Level 2
- ☐ Activity diagram
- ☐ Use case diagram
- ☐ Entity relationship diagram

List of tables

- ☐ Test cases

1. Introduction

1.1 Purpose

To book a mechanic for various kinds of problems for different types of vehicles. One can easily book and get a mechanic in a short time period and get a perfect one. This will reduce the time of the customer and they will have a worthy mechanic.

1.2 Document Conventions

The bold word in the SRS has more emphasis and sub-section heading.

1.3 Intended Audience and Reading Suggestions

This document is to be read by the development team, the project managers, marketing staff, testers and documentation writers. The SRS has been organized approximately in order of increasing specificity. The developers and project managers need to become intimately familiar with the SRS.

1.4 Product Scope

ClickMechanic is the UK's market leading platform that connects car owners who need **repairs, servicing and inspections** to the UK's best mobile mechanics. We match thousands of customers every month with trusted professional mechanics in cities across the UK. Our instant quoting functionality, fast booking and secure payment makes us the simplest and most convenient way to book a car mechanic.

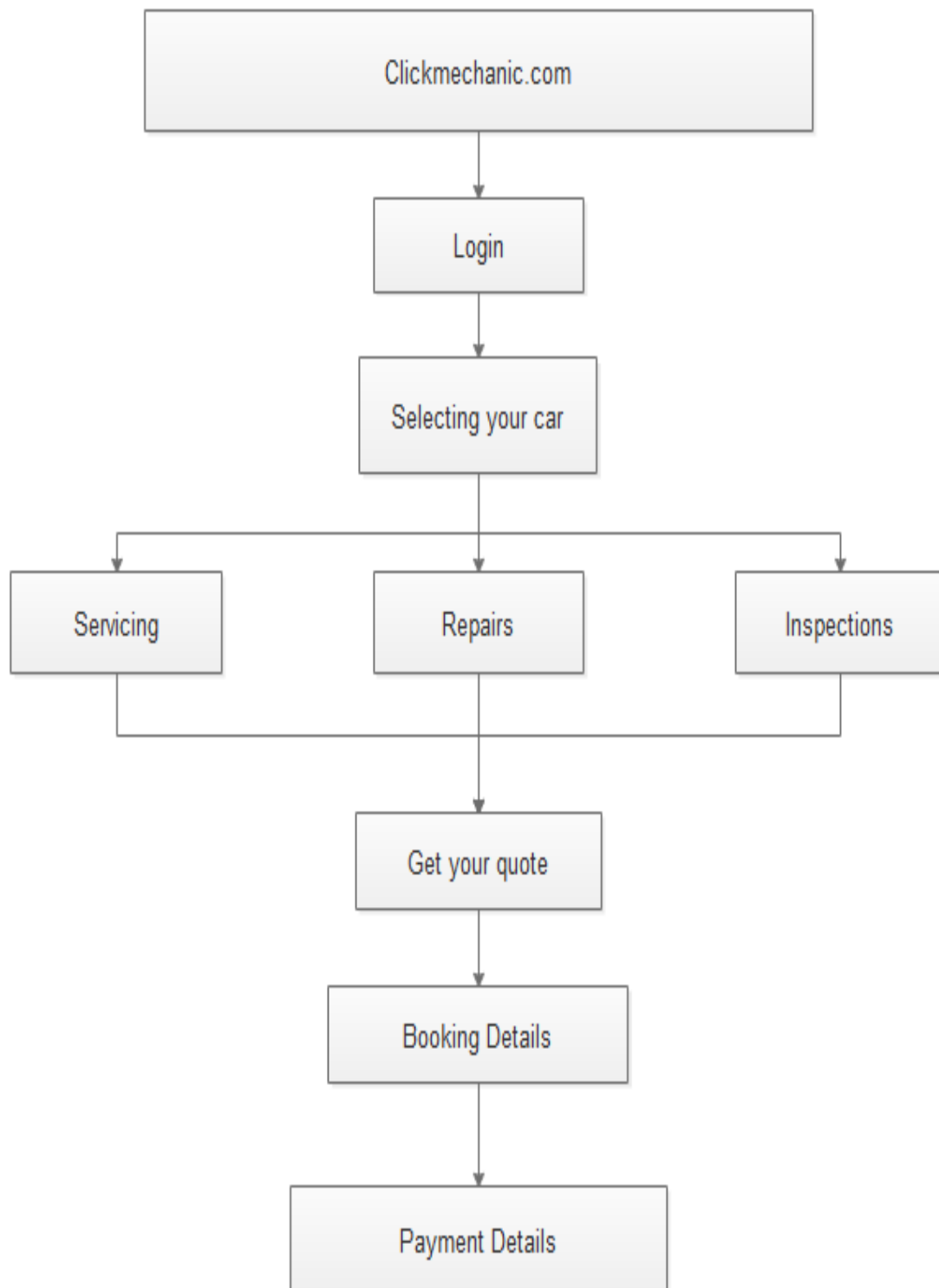
1.5 References

- ☐ Clickmechanic home page - <https://www.clickmechanic.com/>
- ☐ Help page of clickmechanic.com - <https://www.clickmechanic.com/help>
- ☐ How it Works page of clickmechanic.com - <https://www.clickmechanic.com/how-it-works>
- ☐ Click mechanic – servicing - <https://www.clickmechanic.com/bookings/work/?type=service>
- ☐ Click mechanic – repairs - <https://www.clickmechanic.com/bookings/work/?type=repair>
- ☐ Click mechanic – inspections - <https://www.clickmechanic.com/bookings/work/?type=inspection>
- ☐ Click mechanic – your quote - <https://www.clickmechanic.com/bookings/quote>
- ☐ Payment details page - <https://www.clickmechanic.com/bookings/payment>

2. Overall Description

2.1 Product Perspective

ClickMechanic was founded in 2012 as a simple solution to the age-old problem of getting an honest, trustworthy and transparent mechanic for your car. While running a previous car parts aggregator business, **Andrew** found there was a problem with many customers not trusting their mechanics. After further investigation and a chat with his mechanic brother he realised there was just no easy way to book a trusted mechanic. He then decided to study a research masters in **Manchester** where he devoted himself to understanding these problems better. After writing an 85,000 word thesis on the space he moved to London to join accelerator EF where he met **Felix** who had identified these same problems. The pair decided to then team up and develop ClickMechanic with the goal of building the easiest and most transparent way for car owners to book trusted mechanics.



2.2 Product Functions

- ☐ Sign in
- ☐ The Basics
- ☐ The Booking Process
- ☐ Inspections
- ☐ Payments and Refunds
- ☐ Repairs
- ☐ Servicing
- ☐ The Appointment
- ☐ Estimate Price
- ☐ After the Appointment

2.3 User Classes and Characteristics

☐ **Customers:**

Customers are using this site to get a mechanic to repair their vehicles according to the problem they are facing.

☐ **Mechanics:**

Mechanics are also searching for job from here and they get paid from the customers by this site.

☐ **Administrator:**

The one who is managing the site is going to monitor all the tasking happening in this website. And he is going to perform according to the feedback from the customer.

☐ **Developer:**

Developer is the one who is going to re-engineer the website. Any updating required for the website is going to perform by the developer.

2.4 Operating Environment

- ☐ The synchronization procedures will be written to interface with Windows XP, Windows Vista, and Mac OS
- ☐ Recommended browsers are Chrome, Firefox, Safari and Internet Explorer 8 or higher.

2.5 Design and Implementation Constraints

- ☐ It should work in all the platforms.
- ☐ Understandable language should be used and easy to access.
- ☐ JavaScript Enable Browsers.

2.6 User Documentation

- ☐ How It Works
- ☐ Support Center
- ☐ Contact Us

2.7 Assumptions and Dependencies

- ☐ It is assumed that the system is secured and free from external agents.
- ☐ Users can connect with other social media like facebook.
- ☐ No multiple account of same user exists on the login database.

3. External Interface Requirements

3.1 User Interfaces

REQ-1: Popular

Popular repair services are put in this section. This includes Clutch replacement, Alternator replacement, etc.

REQ-2: Brakes

Various types of brake problems are here such as brake pads replacement

REQ-3: Clutch and Controls

A lots of problem related with clutch and controls are repaired.

REQ-4: Engine

A lots of problem related with engine is repaired.

REQ-5: General Electrics

A lots of problem related with general electrics are repaired.

REQ-6: Suspension

A lots of problem related with suspensions are repaired.

REQ-7: Engine management - Fuel

A lots of problem related with engine management – fuel is repaired.

REQ-8: Final drive, shaft & axles

A lots of problem related with final drive, shaft & ales are repaired.

REQ-9: Cooling system

A lots of problem related with cooling systems are repaired.

REQ-10: Exhaust system

A lots of problem related with exhaust system is repaired.

REQ-11: Steering

A lots of problem related with steering is repaired.

REQ-12: Body – Centre Section

A lots of problem related with body – centre section is repaired.

REQ-13: Manual transmission

A lots of problem related with manual transmissions are repaired.

REQ-14: Engine management – Ignition

A lots of problem related with engine management – ignition is repaired.

REQ-15: Air conditioning & heating

A lots of problem related with air conditioning and heating is repaired

3.1.1 Home Page: This is the basic layout having all the basic functions of the website.

3.1.1.2 Book a mechanic:

From here, the user can easily book a mechanic by giving the details of their postcode and registration number.

3.1.1.3 Working of the website:

To use the website, three basic steps are required – Choose your repairs, Pick a date, time and location, Sit back and relax.

3.1.1.4 Customers review:

Customer review is a very important part for growing a website. Reviews are display in the home page.

3.1.1.5 More features of the mechanics:

Here it shows what the things that mechanics are performing.

3.1.2 Sign In:

This is a required function to access the website and the user can login by entering their e-mail and password. Or he/she can do so from their facebook account.

3.1.3 Get Started:

This interface is dedicated to book a mechanic by giving details of your vehicle along with their locations.

3.1.3.1 Need Help:

While booking for a mechanic there is an option to take help at any point of time.

3.1.4 How it Works:

This shows us how to use the website to get the full benefits.

3.1.5 For Mechanics:

Mechanics can register themselves to get job and the details for this is written here.

3.1.5.1 Register mechanics:

New mechanic can register here by giving name, email, mobile number and postcode.

3.1.5.2 How it works:

This shows how a mechanic is working. He will sign up, receive a job, decide that he want to do it or not, and get paid after doing the job.

3.1.6 Support:

Support is the bunch of helping option for any part while working in this website.

3.2 Hardware Interfaces

- ☐ **Minimum requirement:** 500 MB RAM

3.3 Software Interfaces

- ☐ Browser
- ☐ JavaScript Enable
- ☐ Operating System

3.4 Communications Interfaces

- ☐ **Contact Us:**

In this dialog, we can directly communicate with the people working on this website. For this we have to submit our name and e-mail. We can have direct chat and if direct chat is not available then we can leave a message for that.

- ☐ **Browser:** Chrome/Firefox/Safari/IE 8 or higher.

☐ **HTTP**

☐ **SMTP**

☐ Minimum Internet connection of 40 kbps is required for proper functioning of the website.

4. System Features

4.1 Selecting your car

4.1.1 Description and Priority

We can book a mechanic for the repairing of our automobiles. Booking a mechanic is the key feature of this site. And hence it has the **highest priority** than any other functions.

4.1.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Your postcode
- ☐ Select Make
- ☐ Select Model
- ☐ Select Engine
- ☐ Select Year

4.1.3 Functional Requirements

REQ-1: Your postcode

User should provide the postcode of their address so that the mechanic is easy to reach there.

REQ-2:**Select Make**

User is going to select the company of the automobile or the place of the origin of the vehicle.

Select Model

All the models related to the Maker are display here and the user is going select from that.

REQ-4: Select Engine

Types of engine with respect to the model are present her.

.

REQ-5: Select Year

Selecting the year of manufacturing model.

4.2 Servicing**4.2.1 Description and Priority**

Different types of services like full service, interim service etc. and the user can select among the options and put into the booking basket. And it has **medium priority**.

4.2.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Full Service
- ☐ Interim Service
- ☐ MOT with collection and delivery
- ☐ Schedule Service

4.2.3 Functional Requirements

REQ-1: Full Service

A full service that includes extra checks and additional replacement parts.

REQ-2: Interim Service

A quicker, cheaper option to keep you going between full services.

REQ-3: MOT with collection and delivery

A required annual test that checks your vehicles emissions, roadworthiness and safety. An MOT test must be carried out at an approved MOT test centre. Your mechanic will collect and return your car as part of their service.

REQ-4: Schedule Service

Servicing can be done by scheduling at a particular time, place.

4.3 Repairs

4.3.1 Description and Priority

Various kinds of repairing of the automobiles are available here. User can select among those according to his needs. And it has **medium priority**.

4.3.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Popular
- ☐ Brakes
- ☐ Clutch and Controls

- ☐ Engine
- ☐ General Electrics
- ☐ Suspension
- ☐ Engine management – Fuel
- ☐ Final drive, shaft & axles
- ☐ Cooling system
- ☐ Exhaust system
- ☐ Steering
- ☐ Body – Centre section
- ☐ Manual transmission
- ☐ Engine management – Ignition
- ☐ Air conditioning & heating
- ☐ Automatic transmission
- ☐ Body – Front section
- ☐ Body – Rear section

4.3.3 Functional Requirements

REQ-1: Popular

Popular repair services are put in this section. This includes Clutch replacement, Alternator replacement, etc..

REQ-2: Brakes

Various types of brake problems are here such as brake pads replacement

REQ-3: Clutch and Controls

A lots of problem related with clutch and controls are repaired.

REQ-4: Engine

A lots of problem related with engine is repaired.

REQ-5: General Electrics

A lots of problem related with general electrics are repaired.

REQ-6: Suspension

A lots of problem related with suspensions are repaired.

REQ-7: Engine management -Fuel

A lots of problem related with engine management – fuel is repaired.

REQ-8: Final drive, shaft & axles

A lots of problem related with final drive, shaft & ales are repaired.

REQ-9: Cooling system

A lots of problem related with cooling systems are repaired.

REQ-10: Exhaust system

A lots of problem related with exhaust system is repaired.

REQ-11: Steering

A lots of problem related with steering is repaired.

REQ-12: Body – Centre Section

A lots of problem related with body – centre section is repaired.

REQ-13: Manual transmission

A lots of problem related with manual transmissions are repaired.

REQ-14: Engine management – Ignition

A lots of problem related with engine management – ignition is repaired.

REQ-15: Air conditioning & heating

A lots of problem related with air conditioning and heating is repaired.

REQ-16: Automatic transmission

A lots of problem related with automatic transmissions are repaired.

REQ-17: Body – Front Section

A lots of problem related with body – front sections are repaired.

REQ-18: Body – Rare Section

A lots of problem related with body – rare sections are repaired.

4.4 Inspection**4.4.1 Description and Priority**

Checking of faults and defects of our automobile and we the user can select from the list.

And it has **medium priority**.

4.4.2 Stimulus/Response Sequences

List of sequences

- ☐ Diagnostic Inspection
- ☐ Car won't start Inspection
- ☐ Pre-purchase Inspection
- ☐ Plug-in diagnostic Inspection

4.4.3 Functional Requirements

REQ-1: Diagnostic Inspection

It will check the whole vehicle for the faults.

REQ-2: Car won't start Inspection

it will check for the starting up of the car.

REQ-3: Pre-purchase Inspection

Before buying a car user can take help to inspect the new car to be bought.

REQ-4: Plug-in diagnostic Inspection

Mechanics are equipped with diagnostic tools which plug into the vehicle and allow reading information from the engine management systems.

4.5 Get your quote

4.5.1 Description and Priority

Confirm selection of the desire service, repair or inspection of the vehicles. And it has **high priority**

4.5.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Get your quote

4.5.3 Functional Requirements

REQ-1: Get your quote –

Click the button to get your quote for the booking.

4.6 Booking details

4.6.1 Description and Priority

Giving details of the user and it will help the mechanic to reach easily. It has **high priority**.

4.6.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Your details
- ☐ Booking address & phone
- ☐ Date & Time
- ☐ Car Registration
- ☐ Collection & Delivery

4.6.3 Functional Requirements

REQ-1: Your details

User details should provide here.

REQ-2: Booking address & phone

Complete address details and phone details of the user should fill.

REQ-3: Date & Time

Date and Time for the mechanic to come is a must.

REQ-4: Car Registration

Detail of the car is required to know about the car

.

REQ-5: Collection & Delivery

Collection of the car from the user and delivered after completion.

4.7 Payment details**4.7.1 Description and Priority**

Payment details for the complete booking of the mechanic. It has **highest priority**.

4.7.2 Stimulus/Response Sequences

List of stimulus/response are

- ☐ Name on Card
- ☐ Card number
- ☐ Expire date
- ☐ Security code

4.7.3 Functional Requirements

REQ-1: Name on card

name of the user that is printed on his card

REQ-2: Card number

User's debit or credit card number

REQ-3: Expire date

Expire date of the card.

REQ-4: Security code

Secret code for the transaction through card.

5. Other Nonfunctional Requirements**5.1 Performance Requirements**

☐ The performance is best observed above 40 kbps. It is recommended that if the website is to be operated, then minimum of 40kbps speed is needed.

☐ Also if user is paying the amount through net banking of debit card, then for better synchronization a decent speed is needed so that transaction can happen smoothly.

5.2 Safety Requirements

- ☐ Login and sign up must be authenticated for the pre-existing users.
- ☐ Data of every user should maintain.
- ☐ Any transactions should be done in sessions in order to avoid inconsistency.

5.3 Security Requirements

- ☐ **Sign In:** Only registered user can access his/her account.
- ☐ **Sign Up:** No duplicate of the data of the user should be there.
- ☐ **Transactions:** Transactions should be encrypted in order to save them from external agents.

5.4 Software Quality Attributes

- ☐ **Availability:**

Anyone can use this site from any parts of the world using any platform.

- ☐ **Videos:**

We can watch videos for how the mechanic is working their job.

- ☐ **Achievements:**

Display of the information for the achievements of the site in various social media.

☐ **Customers Reviews:**

Reviews from the customers about the site.

☐ **List of Top Makers, Top Locations, Top Repairs, Top Services:**

Common services are present in this section.

5.5 Business Rules

- ☐ Making pricing super honest, transparent and quick.
- ☐ Giving instant quotes through our site that you can trust as we've partnered with some of the world's largest providers of official automotive data.
- ☐ There is warranty of 12 months of the parts supplied by the mechanic.

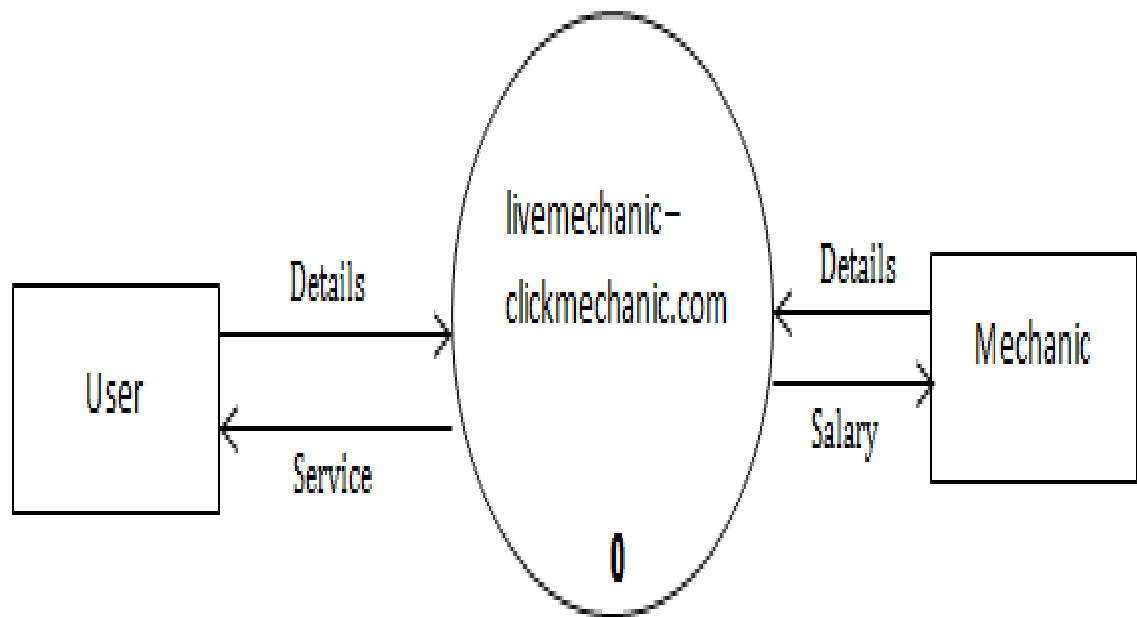
6. Other Requirements

- ☐ Maintenance of the website.
- ☐ Updating to the new functionality.
- ☐ Proper security of the database.

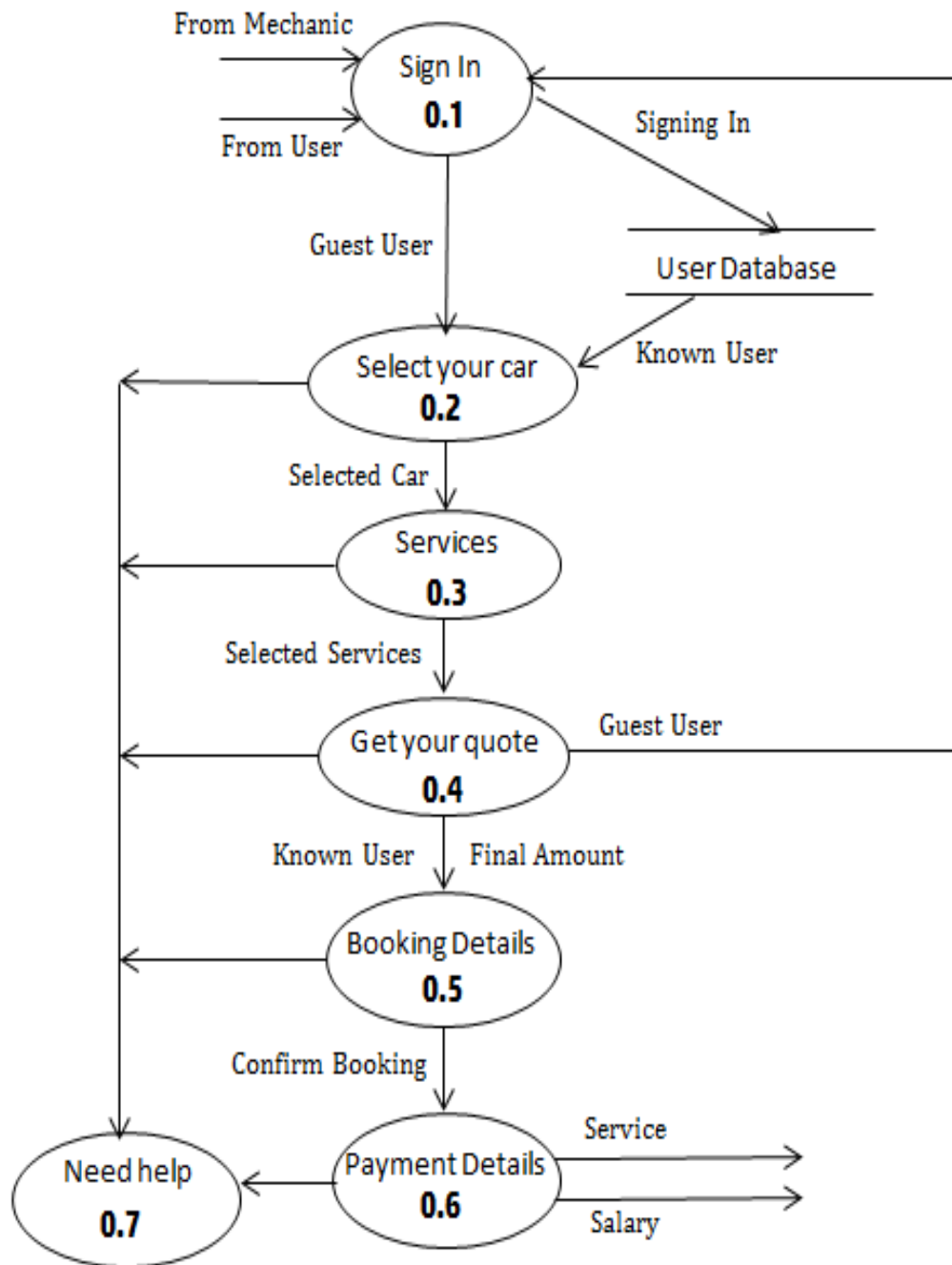
Appendix A: Glossary

- ☐ **User:** person using the website.
- ☐ **Priority:** Giving rate of importance to the system features.
- ☐ **REQ :** Functional Requirements
- ☐ **HTTP:** Hypertext Transfer Protocol
- ☐ **SMTP:** Server Message Transfer Protocol.

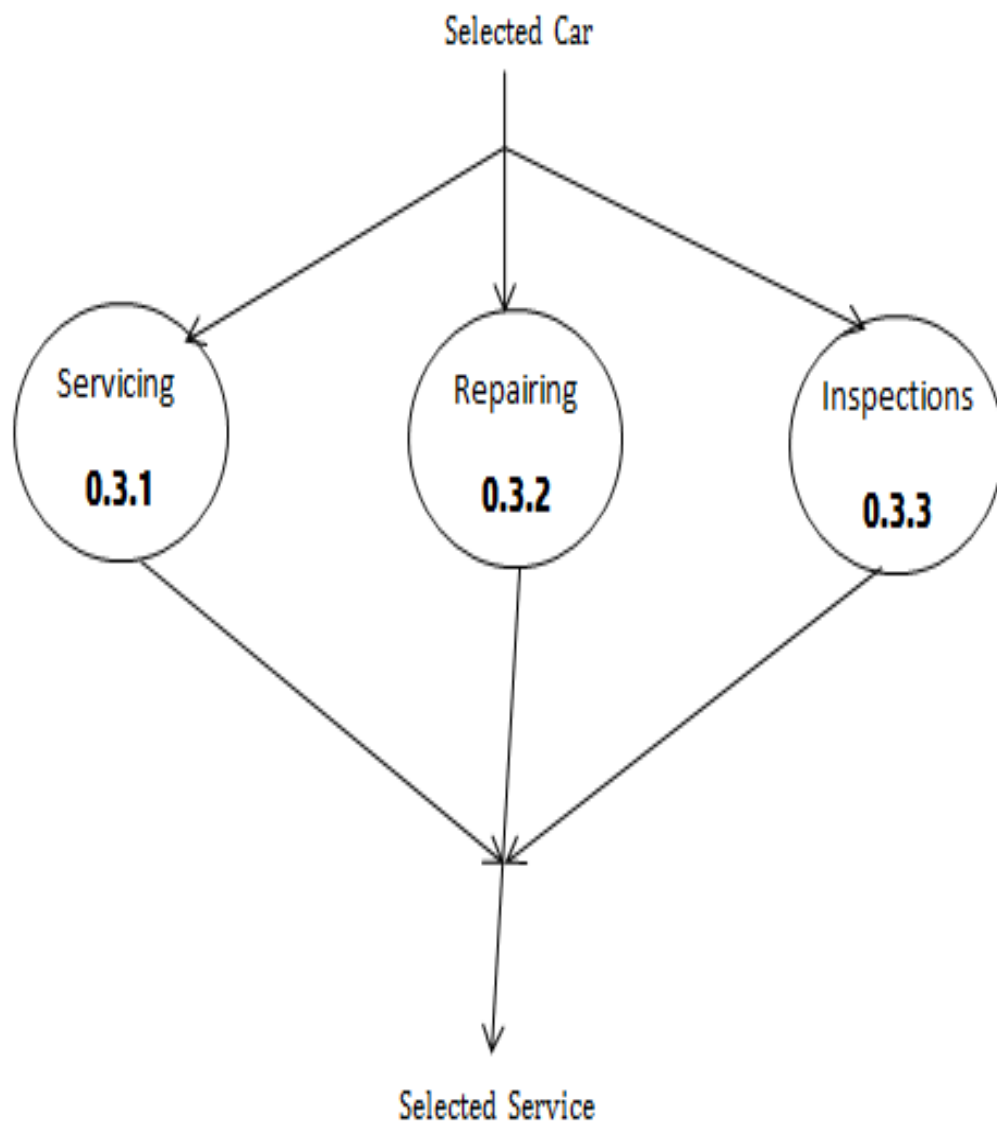
7. Data Flow Diagrams



Level 0

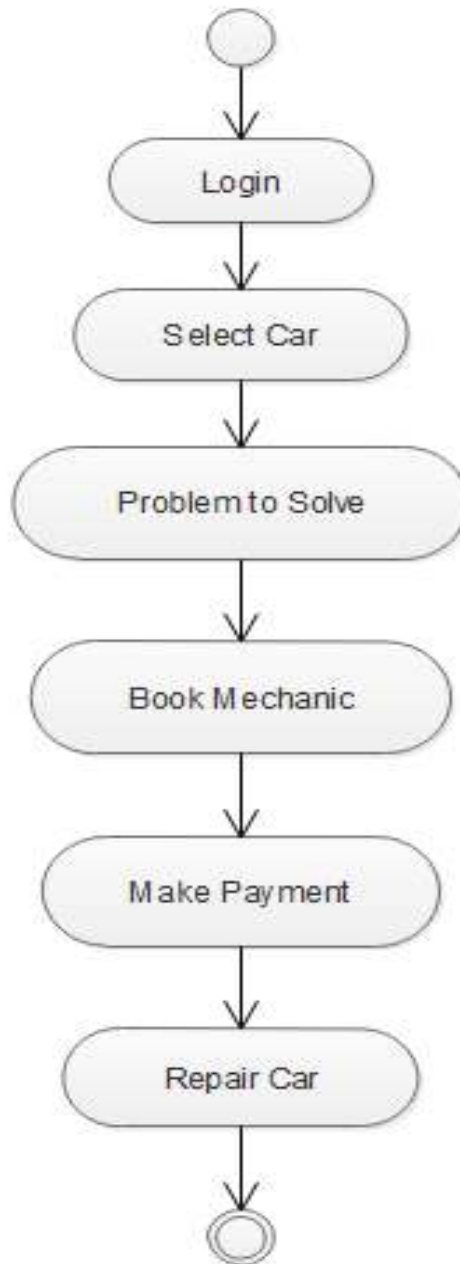


Level 1

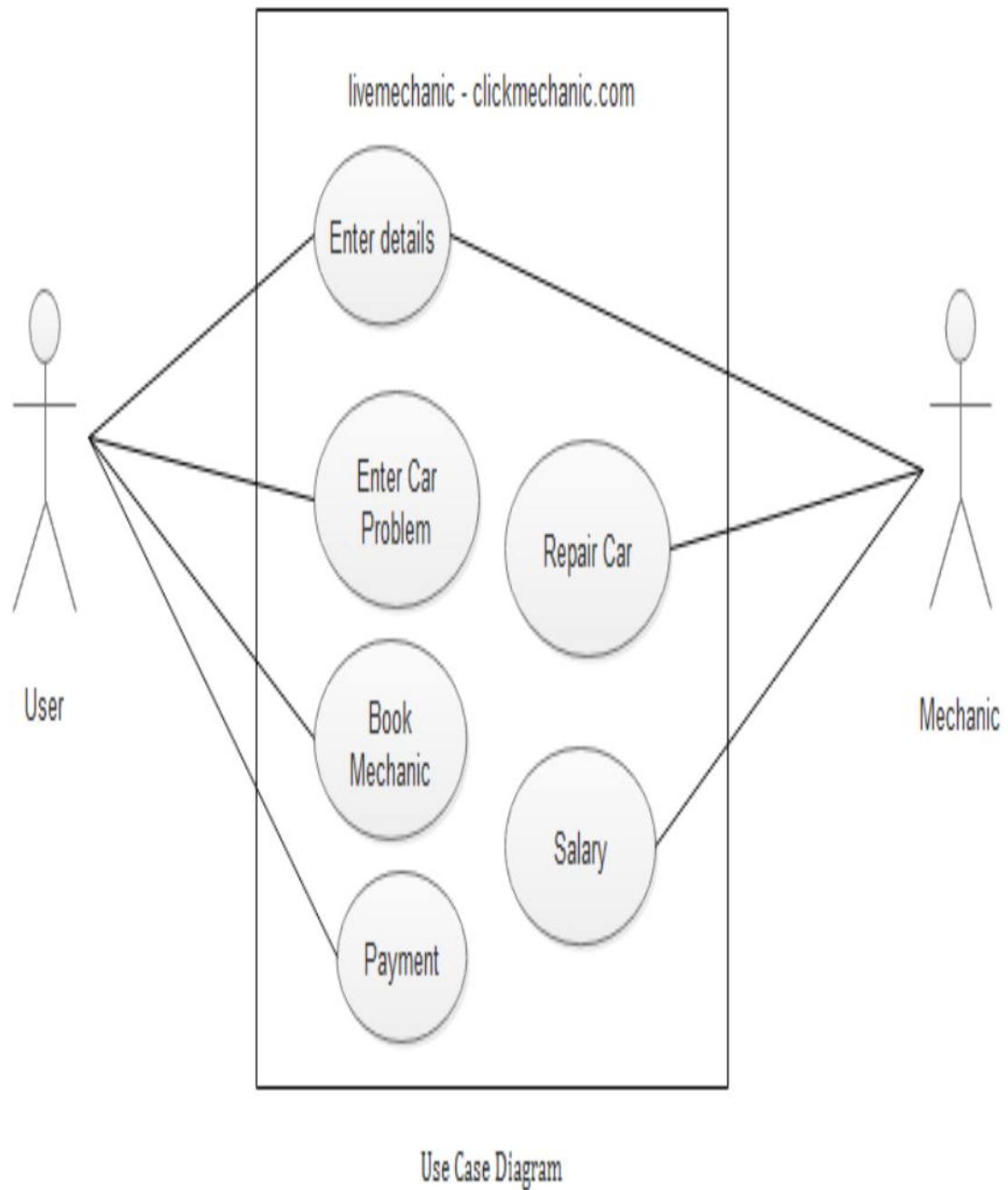


Level 2

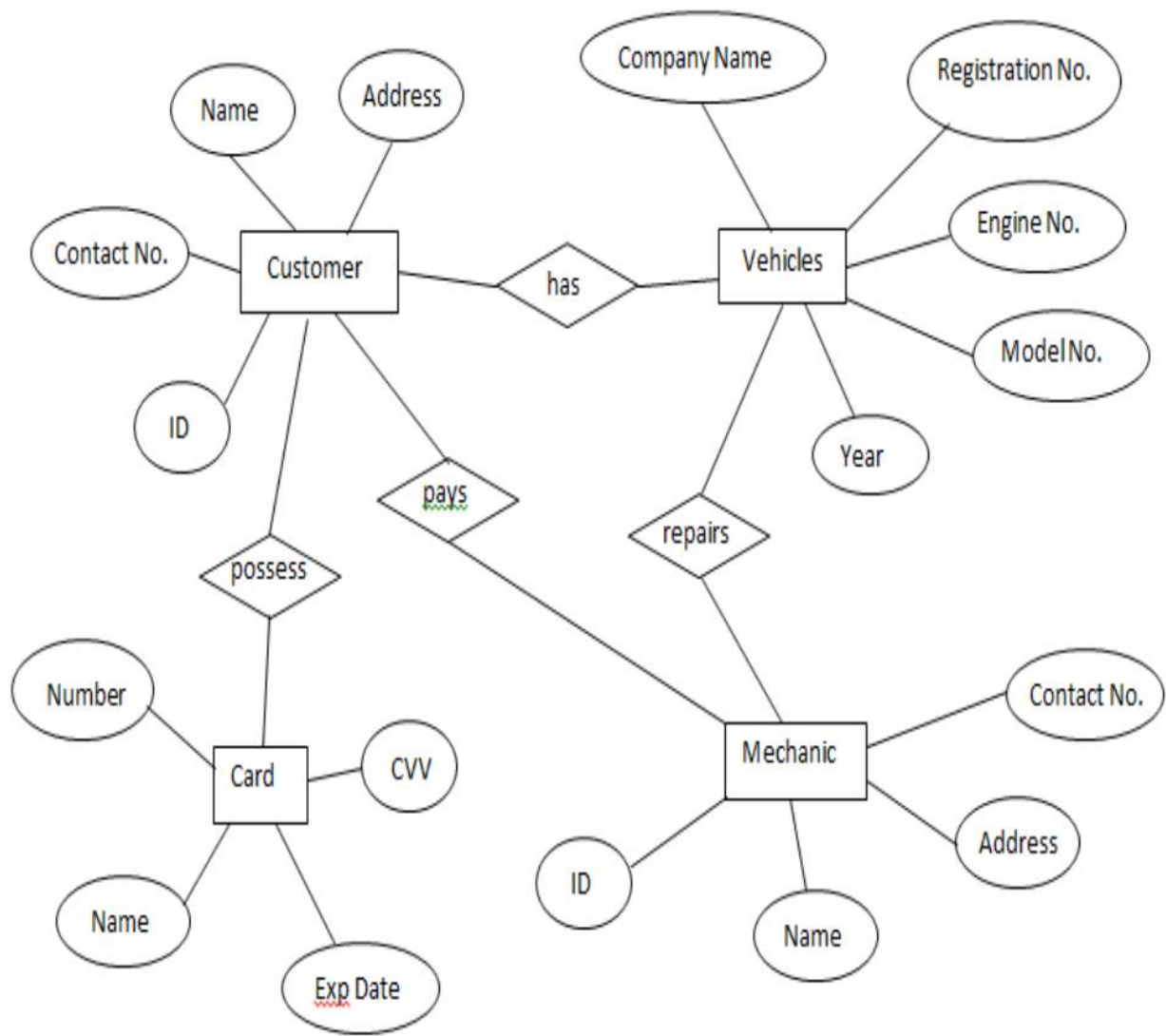
8. Activity Diagram



9. Use Case diagram



10. Entity Relation



Entity Relationship Diagram

11. Test cases

| S.No | Process | Expected Results | Actual Results | Pass / Fail / Not executed / Suspended |
|------|---|---------------------------|----------------|--|
| 1 | Navigate to https://www.clickmechanic.com/ | Site should open | As Expected | Pass |
| 2 | Enter Email & Password | Credential can be entered | As Expected | Pass |
| 3 | Enter random Email and Password | Show error message | As Expected | Pass |
| 4 | Enter Great Britain Postcode and Registration Number | Values can be entered | As Expected | Pass |
| 5 | Enter random Postcode and Registration Number | Show error message | As Expected | Pass |
| 6 | Select the services to solve the problem | Accept the selection | As Expected | Pass |
| 7 | Enter payment details | Credential can be entered | As Expected | Pass |

T

