
SOFTWARE REQUIREMENTS SPECIFICATION

for

Travel Agency Automation
Software (TAAS)

Version 1.0

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Contents

1	Introduction	4
1.1	Purpose	4
1.2	Document Conventions	4
1.3	Intended Audience and Reading Suggestions	4
1.4	Project Scope	4
1.5	References	5
2	Overall Description	6
2.1	Product Perspective	6
2.1.1	Use case diagram:	6
2.2	Product Functions	7
2.3	User Classes and Characteristics	7
2.3.1	Class diagram:	7
2.4	Operating Environment	8
2.5	Design and Implementation Constraints	8
2.6	User Documentation	11
2.7	Assumptions and Dependencies	11
3	External Interface Requirements.	12
3.1	User Interfaces	12
3.2	Hardware Interfaces	12
3.3	Software Interfaces	12
3.4	Communications Interfaces	13
4	System Features	14
4.1	Login	14
4.2	Book Car	14
4.3	Pay Advance	15
4.4	Collect refund/ pay extra	15
4.5	Give feedback	15
4.6	Buy a new car	16
4.7	Analyze statistics	16
4.8	Send Car For Repair	17
4.9	Sell or Condemn old Cars	17
4.10	Change Renting Price Of Car	18
4.11	About Software	18
4.12	Description and Priority	19

5	Other Nonfunctional Requirements	20
5.1	Performance Requirements	20
5.2	Safety Requirements	20
5.3	Security Requirements:	20
5.4	Software Quality Attributes	20
5.5	Business Rules	21
6	Other Requirements	22

1 Introduction

1.1 Purpose

The purpose of this document is to build Travel Agency Automation Software, which is a data management system aimed at handling all the data of a car rental company. The data can be of cars or of customers. It is very difficult to maintain all the data of an agency as a hard copy. The data can be changed, deleted or added anytime, such as a new car can be added to the travel agency, a car can be rented, car can be sent to repair etc. This data can be managed using a software. So, the website "TAAS" is a way to achieve this. This helps in automation of listing of the cars present to give for renting, calculate the cost for renting, give statistic etc.

1.2 Document Conventions

1. OS - Operating System
2. ATR - Action Taken Report
3. TAAS - Travel Agency Automation Software
4. SRS - Software Requirements Specification

1.3 Intended Audience and Reading Suggestions

This project is a prototype for Travel Agency Automation Software. This SRS document is for developers, project managers, users and testers. Further the discussion will provide all the internal, external, functional and also non-functional information about "TAAS WEBSITE".

1.4 Project Scope

The purpose of the project is to make data handling a very easy and efficient, to help the agency in organising and analysing the data of all cars and customers. It is an alternative to the conventional hard copy management of all the data. Advantages of TAAS is that:

- i. Common place for administrator and customers.
- ii. More control over the processes in agency

- iii. Ease of use and time-efficient.
- iv. Reduced risks of human errors.
- v. Easy sales analysis
- vi. Suggestions for price of rent to increase productivity.
- vii. Quick, easy and secure retrieval of information.

1.5 References

- <https://www.perforce.com/blog/alm/how-write-software-requirements-specification-srs-document>
- https://gephi.org/users/gephi_srs_document.pdf
- Previous years SRS documents

2 Overall Description

2.1 Product Perspective

An owner of an agency usually find it difficult to manage the accounts of all the cusotmer and to maintain every car in good condition,i.e, to send every car for servicing regularly. The "TAAS WEBSITE" is the replacement of the manual hard copy data management process. The data have been stored in the hard files or papers. This website will store all of those in a database file. The manager just need to see the sales graph and take decisions accordingly taking help from the suggestions given by this product's analysis. Main goal of this project is to minimize the work and maximize the efficiency of this data management system.

2.1.1 Use case diagram:

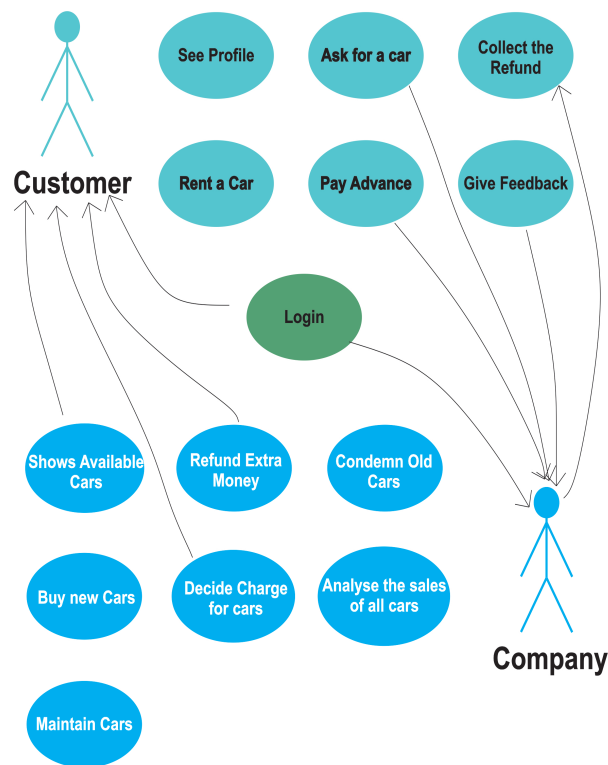


Figure 2.1: Use case diagram

2.2 Product Functions

Our Product functions include:

- Administrator Login
- Customer Login
- Book a car
- Show available cars
- Display the car details
- Add a new car
- Send a car for maintenance
- Sell or condemn old cars
- Calculate the amount of rent to be paid
- Taking feedback from the customer
- Making statistics of demands, consumption of fuel, revenue and cost of maintenance.
- Show previous journeys of a customer

2.3 User Classes and Characteristics

'TAAS Website" has typically 2 types of users:

- Customer who books a car for rent
- Administrator who do works such as deciding the rent of car, buying new car etc.

Customer : This class will contain the information about a customer. It stores all the previous journeys completed by that customer. The customer need to login or create new account on the website, then he can rent a car, give feedback on return, see his full profile, etc.

Administrator : This class will contain information about every car in the agency, see if they need to get repaired, sell them if they are old or add new cars if required. The administrator will be seeing the sales distribution analysis and can change the rant of the cars based on that.

2.3.1 Class diagram:

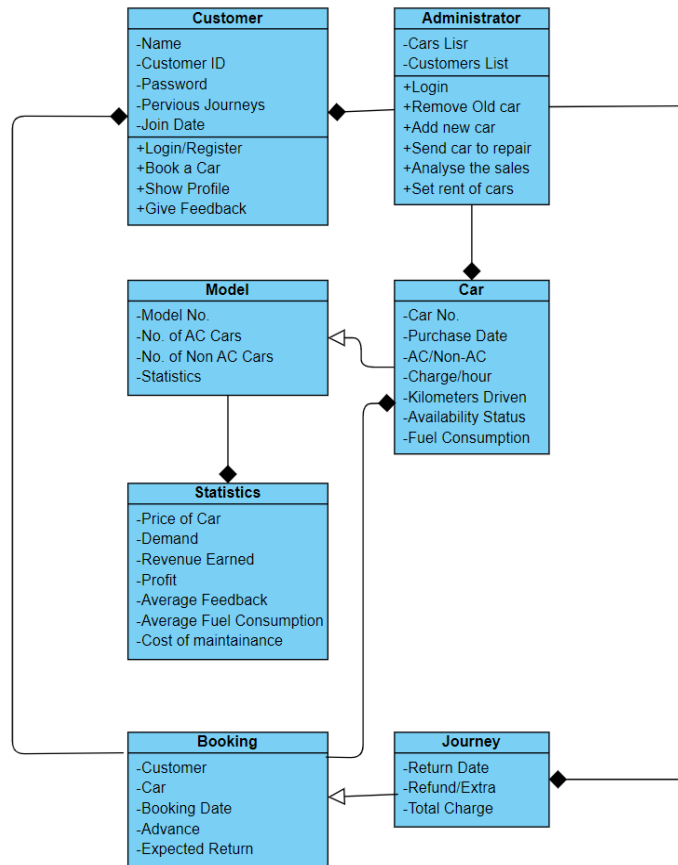


Figure 2.2: Class Diagram

2.4 Operating Environment

The website will be operate in all major Operating Environment - Mac, Windows, Linux, Android etc. with a browser and an active internet connection.

2.5 Design and Implementation Constraints

Customer can do:

- Login
- Book a car
- Pay advance
- Get refund or pay extra

- Give feedback
- See their profile

Notice will contain all the available cars of TAAS.

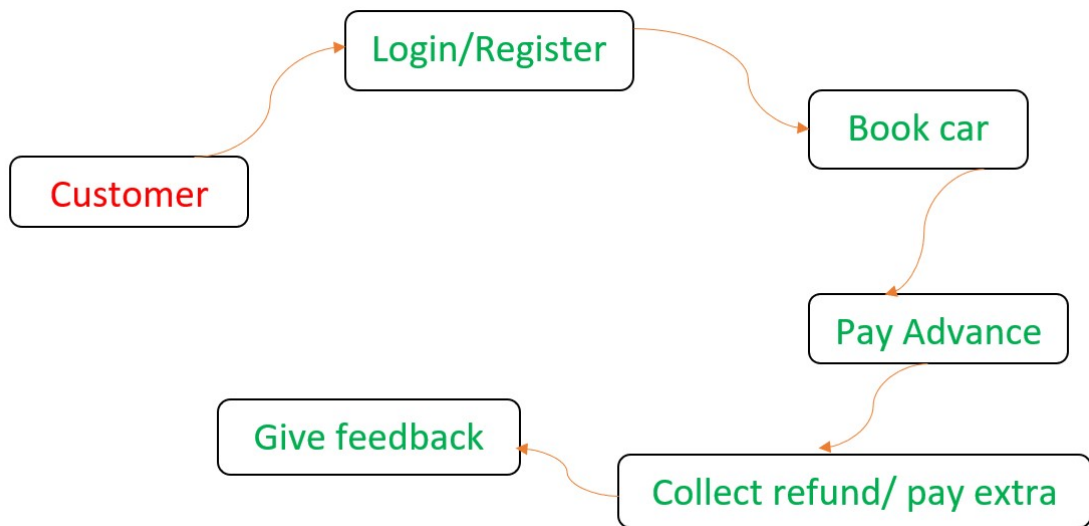


Figure 2.3: Customer Activities

Administrator can do:

- Buy a new cars
- Give a car for rent
- Send a car for repair
- Sell or condemn old cars
- Change renting price of a car

Administrator can see the statistics of demands for cars, fuel consumption and other things.

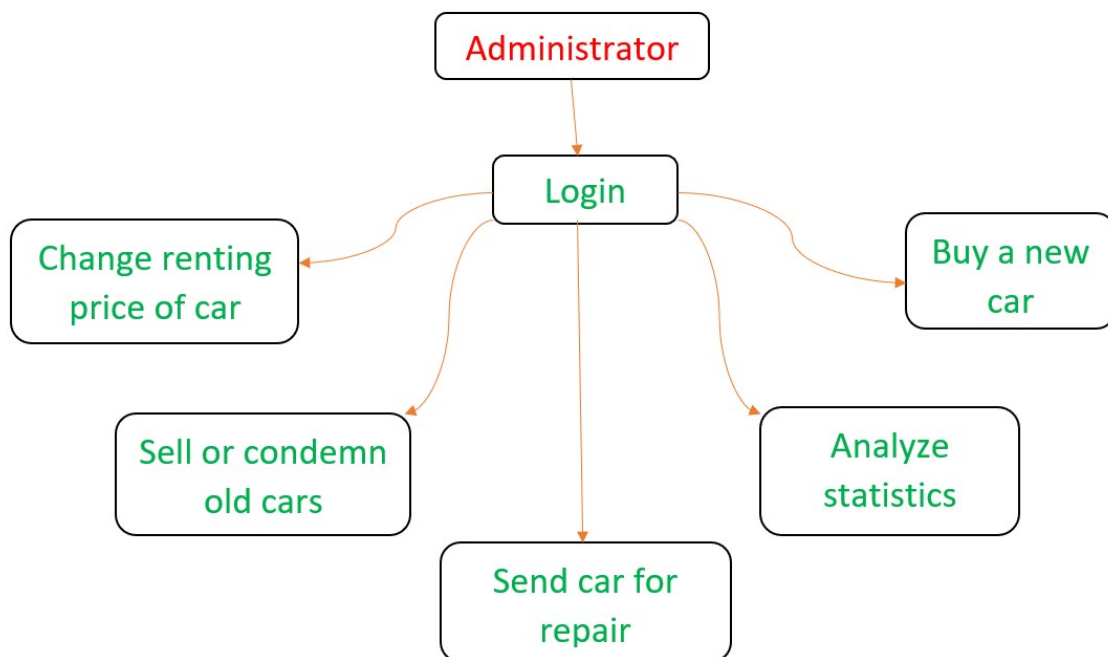


Figure 2.4: Administrator Activities

2.6 User Documentation

A guided user manual will be there inside the product with pictorial flow. The main points are :

1. The user need to login.
2. If a new customer is visiting, then he need to register first.
3. The customer can see which cars are available, and chose a car from them.
4. The administrator can see the sales distribution among various car models and among various customers.
5. He can buy/sell car and change the rent of cars.

2.7 Assumptions and Dependencies

The product will be a website, hence it will require a server to host the code. The backend needs a vast database to store all data. The user will need a web browser and an active internet connection to run this application. Also it is assumed that python is installed in the user's device and enabled javascript in the browser.

3 External Interface Requirements.

3.1 User Interfaces

- **Homescreen**
 - ◊ Customer Login
 - ◊ Administrator Login
- **Customer Login**
 - ◊ Profile
 - ◊ See the list of available cars
 - ◊ Book a car
 - ◊ Pay advance
 - ◊ Get refund or pay extra
 - ◊ Give feed back
- **Administrator Login**
 - ◊ Buy a new car
 - ◊ Change renting price of a car
 - ◊ Sell or condemn old cars
 - ◊ Send a car for repair
 - ◊ Analyse statistics

3.2 Hardware Interfaces

- The large database should be handled on the server-side.

3.3 Software Interfaces

- Html
- CSS
- Javascript
- Django

3.4 Communications Interfaces

- For communication of software, it is developed using html, css, javascript and django. **HTTP** communication standards will be used throughout.

4 System Features

4.1 Login

Priority: High

- **Use Case Name:** Login
- **Use Case Purpose:** The various actors use this functionality to login to their respective accounts
- **Use Case Precondition:** The actors have the correct login id and password
- **Use Case Post Conditions:** The actors enter the TAAS to perform activities
- **Actors:** Customers, Administrator

User Class: Customer

4.2 Book Car

Priority: High

- **Usecase Name:** Book Car
- **Use Case Purpose:** A customer can book a car for his journey
- **Use Case Precondition:** The customer should have the correct login id and password
- **Use Case Post Conditions:** The customer gets a car chosen for his journey and he need to pay the advance
- **Actor:** Customers

4.3 Pay Advance

Priority: High

- **Usecase Name:** Pay Advance
- **Use Case Purpose:** A customer should pay the advance to get the car allotted
- **Use Case Precondition:** The customer should have the correct login id and password
- **Use Case Post Conditions:** The car is given to customer for journey
- **Actor:** Customers

4.4 Collect refund/ pay extra

Priority: High

- **Usecase Name:** Collect refund/ pay extra
- **Use Case Purpose:** A customer should collect refund/ pay extra after his journey
- **Use Case Precondition:** The customer should have the correct login id and password
- **Use Case Post Conditions:** The car is given to customer for journey
- **Actor:** Customers

4.5 Give feedback

Priority: Medium

- **Usecase Name:** Give feedback

- **Use Case Purpose:** A customer can give feedback if he/she wishes to
- **Use Case Precondition:** The customer should have the correct login id and password and complete journey
- **Use Case Post Conditions:** The feedback given reaches the administrator and is used for the development of the agency
- **Actor:** Customers

User Class: Administrator

4.6 Buy a new car

Priority: Medium

- **Use case Name:** Buy a new car
- **Use Case Purpose:** The administrator can buy a new car and add it the list of available cars to show to customers
- **Use Case Precondition:** The administrator should have the correct login id and password
- **Use Case Post Conditions:** The new car gets added to the list of available cars
- **Actor:** Administrator

4.7 Analyze statistics

Priority: High

- **Use case Name:** Analyze Statistics

- **Use Case Purpose:**The Administrator should look into the profits and losses and the statistics of the business for well being and the long run of the business.
- **Use Case Precondition:** The administrator should have the correct login id and password
- **Use Case Post Condition:**After analyzing the condition and make a better plan for the future.
- **Actor:**Administrator

4.8 Send Car For Repair

priority: High

- **Use case Name:** Send Car For Repair
- **Use Case Purpose:** The Administrator must look into the car's condition so that he can send the car's to repair for the smooth and safety of the customers.
- **Use Case Precondition:** The administrator should have the correct login id and password
- **Use Case Post Condition:** After seeing the results he can make a list of car's which should be send to repair and the other list of car's which are available so that they can conclude that which car's need to to be shown to the customer for in the available condition.
- **Actor:**Administrator

4.9 Sell or Condemn old Cars

priority: Medium

- **Use case Name:** Sell or Condemn old Cars

- **Use Case Purpose:** The Old cars must be sold so as they might be damaged and most of them might be uncomfortable to travel and also for the safety for the customer
- **Use Case Precondition:**The administrator should have the correct login id and password
- **Use Case Post Condition:**After looking into this he can make a list and start selling them for recovering the losses or condemn them if they are int too bad conditions.
- **Actor:**Administrator

4.10 Change Renting Price Of Car

priority: Medium

- **Use case Name :** Change renting price of the car
- **Use Case Purpose :** For good maintenance of the business and for well being of the company.
- **Use Case Precondition :**The administrator should have the correct login id and password
- **Use Case Post Condition :** After looking into the statistics we can decide which rate should be increased and decreased depending in the purpose for the smooth and long run of the company.
- **Actor :**Administrator

4.11 About Software

”TAAS WEBSITE” is a data management web software. So the main art of this product is to enter, manage and analyse the data in a very efficient way.

4.12 Description and Priority

"TAAS WEBSITE" has many features that will help in organising the data and analysing the sales.

The main feature are -

1. **Analyse** : This is the main objective of this software. The administrator should be able to see the sales statistics easily.
Booking : The user should be able to see all the cars available for renting and chose from them.
2. **Send to Repair** : This is a very useful function for the administrator. It will remind him of the car servicing.

5 Other Nonfunctional Requirements

5.1 Performance Requirements

- We will be using htm, css, javascript and django.
- It should be able to handle multiple logins.

5.2 Safety Requirements

- All the users must remember their password.
- There is no option for "forgot password".
- If forgot they have to come by a new account.
- No one has to share their password.

5.3 Security Requirements:

- A user has to register himself before renting a car.
- One particular user can only perform his/her particular actions.
- No one can enter other's account without knowing one other's password, as all password's are stored in a database in an encrypted form.

5.4 Software Quality Attributes

- **Correctness:** This system should satisfy the normal Car rental operations precisely to fulfil the end-user objectives.

- **Efficiency:** Enough resources to be implemented to achieve a particular task efficiently without any hassle.
- **Integrity:** The system should focus on securing the hall information and avoid data losses as much as possible.
- **Portability:** The system should run in any of the Windows/Linux/ mac OS environments.
- **Usability:** The system should provide a user manual to every level of users.
- **Testability:** The system should be able to be tested to confirm the performance and clients specifications.
- **Maintainability:** The system should be maintainable.
- Database, logical and also UI test is required.

5.5 Business Rules

- "TAAS" is for storing user results and publish those results of particular programs.
- The software will be free to use for all the various stakeholders. The source code will be publicly hosted for free use, modification and to get any useful advice to enhance our system.
- Basically this helps to save working time and pressure.

6 Other Requirements

"TAAS WEBSITE" needs maintenance as it is a long process software. It will need re-factoring and further the requirements can be changed as the field is changing frequently.