



Software Specifications Document

Version 1

Antonis Andreou

Gabriel Vasile

Georgios Architektonides

Jorgos Xidias

Kyriacos Andreou

Stylianos Kyprianou

REVISION CHART

Version	Primary Author(s)	Description of Version	Date Completed
Version 1	Antonis Andreou Gabriel Vasile Georgios Architektonidis Jorgos Xidias Kyriacos Andreou Stylianos Kyprianou	In this initial version, the focus was on outlining and documenting all the fundamental specifications and details for the system.	05/02/2025
Final Version	Antonis Andreou Gabriel Vasile Georgios Architektonidis Jorgos Xidias Kyriacos Andreou Stylianos Kyprianou	Final version: During implementation some things changed, the document was updated accordingly.	14/04/2025

CONTENTS

1.	INTRODUCTION	6
1.1	PURPOSE	6
1.2	SCOPE	6
1.3	DEFINITIONS, ACRONYMS, AND ABBREVIATIONS	6
1.4	REFERENCES	7
1.5	OVERVIEW.....	7
2.	STRUCTURED SYSTEM ANALYSIS.....	8
2.1	DATA FLOW DIAGRAMS.....	8
2.1.1	User Access - Data Flow Diagram	8
2.1.2	Jobs Management - Data Flow Diagram	13
2.1.3	Part Management- Data Flow Diagram.....	23
2.1.4	Customer Management - Data Flow Diagram.....	35
2.1.5	Accounting Management - Data Flow Diagram.....	44
2.1.6	User Management - Data Flow Diagram	53
2.1.7	Invoice Management - Data Flow Diagram.....	59
2.1.8	Cars Management - Data Flow Diagram.....	69
2.2	DATA FLOWS	78
2.2.1	User Access – Data Flow.....	78
2.2.2	Jobs Management – Data Flow	79
2.2.3	Parts Management – Data Flow.....	87
2.2.4	Customer Management – Data Flow.....	91
2.2.5	Accounting Management – Data Flow.....	95
2.2.6	User Management – Data Flow.....	100
2.2.7	Invoice Management – Data Flow.....	102
2.2.8	Cars Management – Data Flow.....	109
2.3	LOGIC OF PROCESSES	114
2.3.1	User Access – Logic Of Processes	114
2.3.2	Jobs Management – Logic of Processes	117
2.3.3	Part Management – Logic Of Processes	123
2.3.4	Customer Management – Logic Of Processes	129
2.3.5	Accounting Management – Logic Of Processes.....	134
2.3.6	User Management – Logic Of Processes	139
2.3.7	Invoice Management – Logic Of Processes	142
2.3.8	Cars Management – Logic Of Processes	148
2.4	DATA STORES	153
2.4.1	Customers Database.....	153
2.4.2	Phone Numbers Database.....	153
2.4.3	Emails Database	154

2.4.4	<i>Addresses Database</i>	154
2.4.5	<i>Job Cards Database</i>	155
2.4.6	<i>Job Car Database</i>	156
2.4.7	<i>Invoice Job Database</i>	157
2.4.8	<i>JobCard Parts Database</i>	157
2.4.9	<i>Parts Database</i>	157
2.4.10	<i>Parts Supply Database</i>	159
2.4.11	<i>Users Database</i>	159
2.4.12	<i>Invoices Database</i>	160
2.4.13	<i>Cars Database</i>	161
2.4.14	<i>Suppliers Database</i>	162
2.4.15	<i>Car Associtation Database</i>	163
2.4.16	<i>Parts Supplier Database</i>	163
2.4.17	<i>Password reset Database</i>	164
2.4.18	<i>Security Question Database</i>	164
2.5	PHYSICAL RESOURCES	164
2.5.1	<i>Customers Database</i>	164
2.5.2	<i>Phone Numbers Database</i>	165
2.5.3	<i>Emails Database</i>	165
2.5.4	<i>Addresses Database</i>	165
2.5.5	<i>Job Cards Database</i>	166
2.5.6	<i>Job Car Database</i>	166
2.5.7	<i>Invoice Job Database</i>	166
2.5.8	<i>JobCard Parts Database</i>	167
2.5.9	<i>Parts Database</i>	167
2.5.10	<i>Parts Supply Database</i>	167
2.5.11	<i>Users Database</i>	168
2.5.12	<i>Invoices Database</i>	168
2.5.13	<i>Cars Database</i>	169
2.5.14	<i>Suppliers Database</i>	169
2.5.15	<i>Car Associtation Database</i>	170
2.5.16	<i>Parts Supplier Database</i>	170
2.5.17	<i>Password reset Database</i>	170
2.5.18	<i>Security Question Database</i>	171
2.6	INPUT/OUTPUT SPECIFICATIONS.....	171
2.6.1	<i>User Login</i>	171
2.6.2	<i>Reset Password</i>	172
2.6.3	<i>New Customer Information</i>	174
2.6.4	<i>New Part Information</i>	176
2.6.5	<i>New Job Card Information</i>	178
2.6.6	<i>Extra Expenses (Accounting)</i>	180
2.6.7	<i>Add an Invoice into the System</i>	181
2.6.8	<i>Add New User</i>	183
2.7	SIZING	185
2.7.1	<i>Customers Database</i>	185

2.7.2	<i>Phone Numbers Database</i>	185
2.7.3	<i>Emails Database</i>	186
2.7.4	<i>Addresses Database</i>	186
2.7.5	<i>Job Cards Database</i>	186
2.7.6	<i>Job Car Database</i>	187
2.7.7	<i>Invoice Job Database</i>	187
2.7.8	<i>Job Cards Parts Database</i>	188
2.7.9	<i>Parts Database</i>	188
2.7.10	<i>Parts Supply Database</i>	189
2.7.11	<i>Users Database</i>	190
2.7.12	<i>Invoices Database</i>	190
2.7.13	<i>Cars Database</i>	191
2.7.14	<i>Suppliers Database</i>	192
2.7.15	<i>Car Association Database</i>	192
2.7.16	<i>Parts Supplier Database</i>	193
2.7.17	<i>Password reset Database</i>	193
2.7.18	<i>Security Question Database</i>	194
2.8	HARDWARE REQUIREMENTS.....	194
3.	OBJECT-ORIENTED SYSTEM ANALYSIS	195
3.1	USE-CASE MODELLING.....	195
3.1.1	<i>User Access</i>	195
3.1.2	<i>Jobs Management</i>	196
3.1.3	<i>Parts Management</i>	199
3.1.4	<i>Customer Management</i>	202
3.1.5	<i>Accounting Management</i>	205
3.1.6	<i>User Management</i>	206
3.1.7	<i>Invoice Management</i>	209
3.1.8	<i>Cars Management</i>	212
3.2	CLASS MODELLING	214
3.3	STATE DIAGRAMS	215
3.3.1	<i>User Access – State Chart</i>	215
3.3.2	<i>Jobs Management – State Chart</i>	215
3.3.3	<i>Parts Management - State Chart</i>	216
3.3.4	<i>Customers Management - State Chart</i>	216
3.3.5	<i>Accounting Management - State Chart</i>	217
3.3.6	<i>User Management - State Chart</i>	217
3.3.7	<i>Invoice Management - State Chart</i>	218
3.3.8	<i>Cars Management - State Chart</i>	218
4.	ENTITY-RELATIONSHIP DIAGRAM	219
4.1	E-R DIAGRAM	219
4.2	RELATIONAL SCHEMA	220

5. SOFTWARE PROJECT MANAGEMENT PLAN221

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to define the functional and non-functional requirements of the system. It outlines the development process in terms of how the system is expected to behave, the features that will be included, and how users will interact with the system. This document caters for software developers, project managers, testers in the system's lifecycle.

1.2 Scope

The system caters to the specific needs of the company by providing a web application. From the administrator's perspective, the system will provide tools to effectively manage and update the inventory of parts, including the ability to add, edit, or remove items as needed. In addition, the system will maintain a detailed database of client information, including essential details such as name, contact information, service address, cars and transaction history. This ensures that all client interactions are efficiently recorded and tracked. Additionally, the system will include the details of each ongoing or finished job. Lastly, the system will offer the ability to generate detailed annual statistics to assist in analysing business performance and planning future strategies. By providing these functionalities, the platform will support the growth and operational efficiency of the Mobile Garage company.

1.3 Definitions, Acronyms, and Abbreviations

- **Administrator (Admin):** Refers to the individual responsible for managing the system. The administrator has the authority to oversee all system operations, including customer management, inventory control, job card creation, and the generation of statistical reports.
- **User:** Refers to the registered employees of the mobile garage company who interact with the system to manage customer records, schedule appointments, track job statuses, and update inventory.
- **Customer:** Refers to the customers of the mobile garage company who request services or purchase products. Clients may include individual customers or corporate entities.
- **Job Card:** A digital document created for each job undertaken by the company. It includes comprehensive information such as customer details, vehicle data, job descriptions, parts used, costs, and service completion status.

- **Part:** A digital document created for each part undertaken by the company. It includes comprehensive information such as supplier details, pieces purchased, date created, price per piece, selling price, VAT and Price Bulk.
- **Database:** A structured and centralized repository used to store and manage all system data, including customer records, inventory details, job information, and accounting.

1.4 References

1. Software Technology course CEI_324, Software Specifications Document.
2. Tool for Diagrams: [draw.io](#)
3. Tool for Gantt Chart: [onlinegantt.com](#)

1.5 Overview

This document will focus in detail on the system specifications of the company. More specifically, in Section 2, data flow diagrams for both Success and Unsuccess scenarios of the system will be analysed. Additionally, there will be a further analysis of data flows, process logic, data storage, the physical resources required by the system, input/output specification sizes, and hardware requirements. In Section 3, all use-case scenarios, the class diagram, and state diagrams will be presented in greater detail. Then, in Section 4, the entity-relationship diagram will be introduced. Finally, in Section 5, the detailed software project management plan (Gantt chart) for all phases is provided.

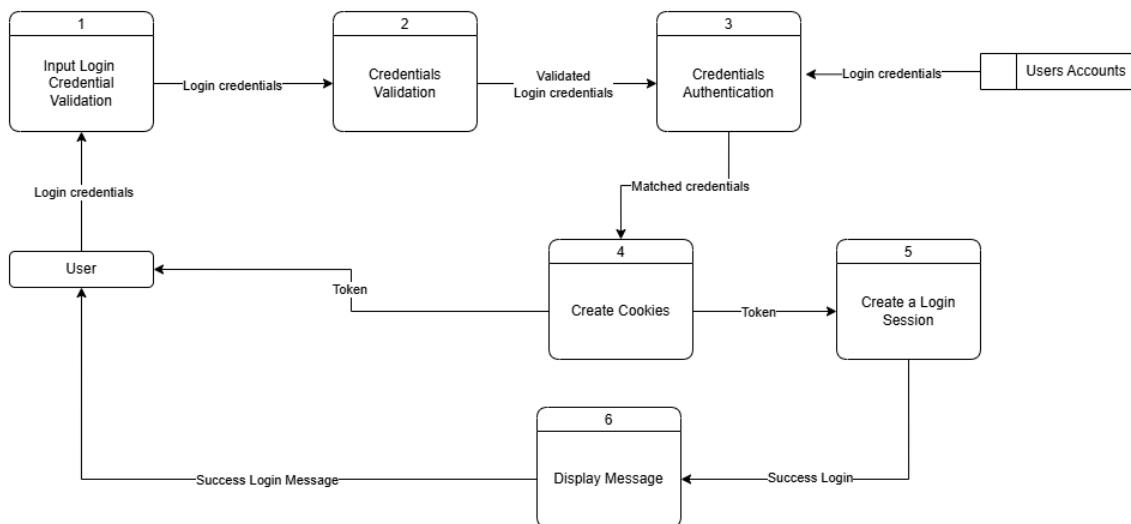
2. STRUCTURED SYSTEM ANALYSIS

2.1 Data Flow Diagrams

2.1.1 User Access - Data Flow Diagram

2.1.1.1 Login - Data Flow Diagram

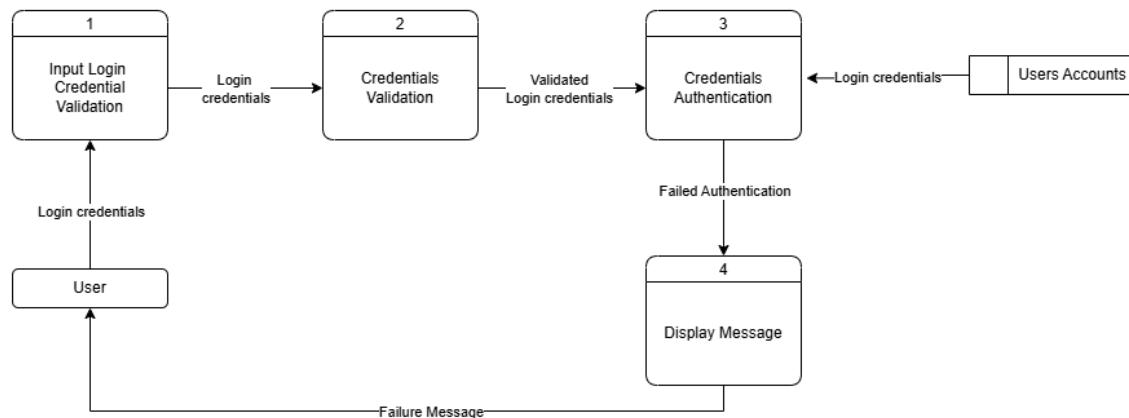
Scenario 1 – Successful Login



Scenario 1 – Brief Explanation for Successful Login

The user begins by inputting their login credentials (Process 1). The system validates the credentials (Process 2) to ensure they match format. Once validated, the credentials are authenticated (Process 3) by matching them against the user accounts database. If the credentials match, the system creates cookies for the session (Process 4) and establishes a login session (Process 5). Finally, the system displays a success message (Process 6), confirming that the user has successfully logged in.

Scenario 2 – Unsuccessful Login

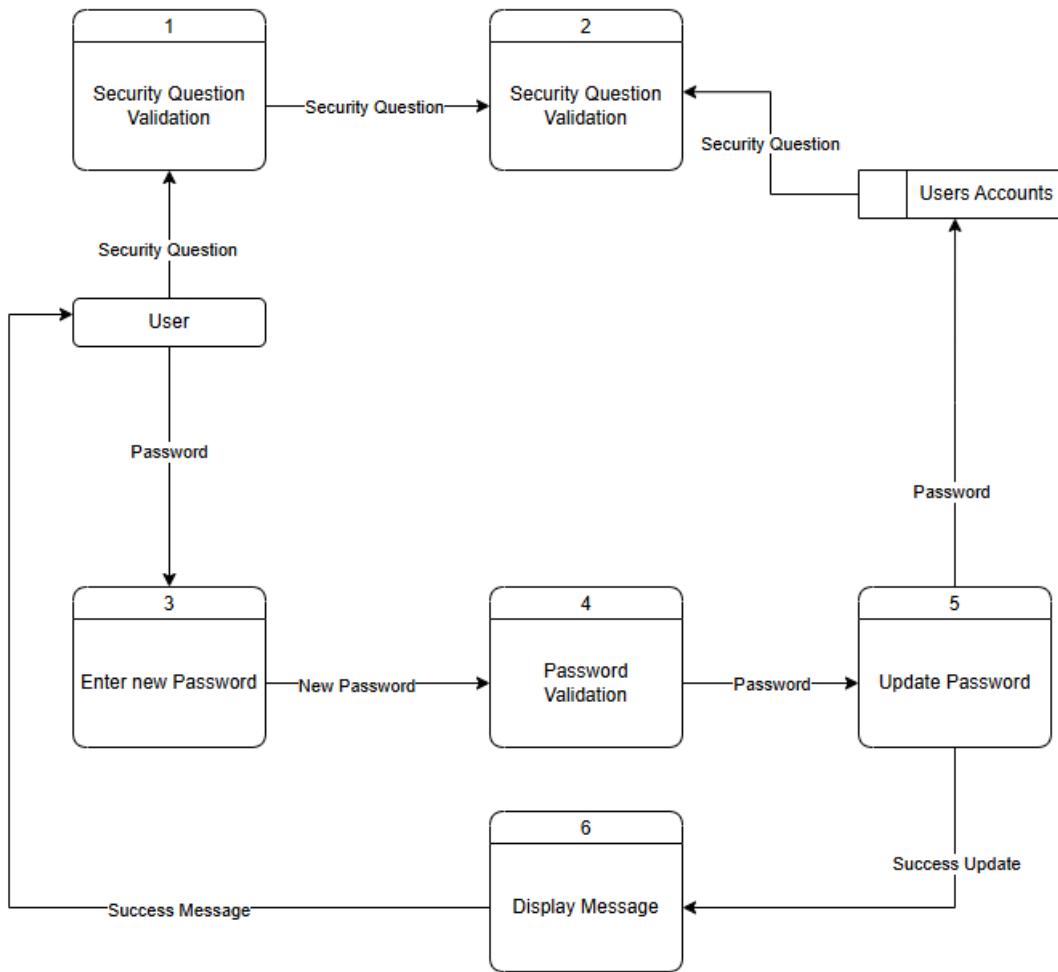


Scenario 2 – Brief Explanation for Unsuccessful Login

The user begins by inputting their login credentials (Process 1). The system validates the credentials (Process 2) to ensure they match format. Once validated, the credentials are authenticated (Process 3) by comparing them against the user accounts database. If the authentication fails, the system generates a failure message (Process 4) and displays it to the user, informing them of the unsuccessful login attempt.

2.1.1.2 Forgot Password – Data Flow Diagram

Scenario 1 – Successful Forgot Password

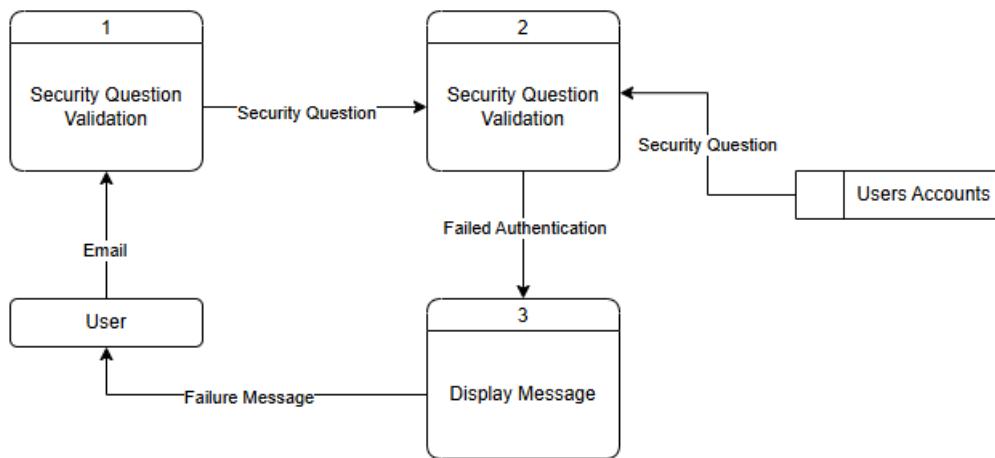


Scenario 1 – Brief Explanation for Successful Forgot Password

When a user forgets their password, they start the reset process by inserting their email and answering their Security Question. The system first validates the security question (Process 1) and then checks if the answer matches the stored data (Process 2) from the User Accounts database. If the security question is answered correctly, the user is allowed to proceed to enter a new password (Process 3). After entering the new password, the system validates it (Process 4) to ensure it meets the required criteria (such as password strength). Once validated, the new password is updated in the database (Process 5). A

success message (Process 6) is then displayed to inform the user that their password has been reset successfully.

Scenario 2 – Unsuccessful Forgot Password

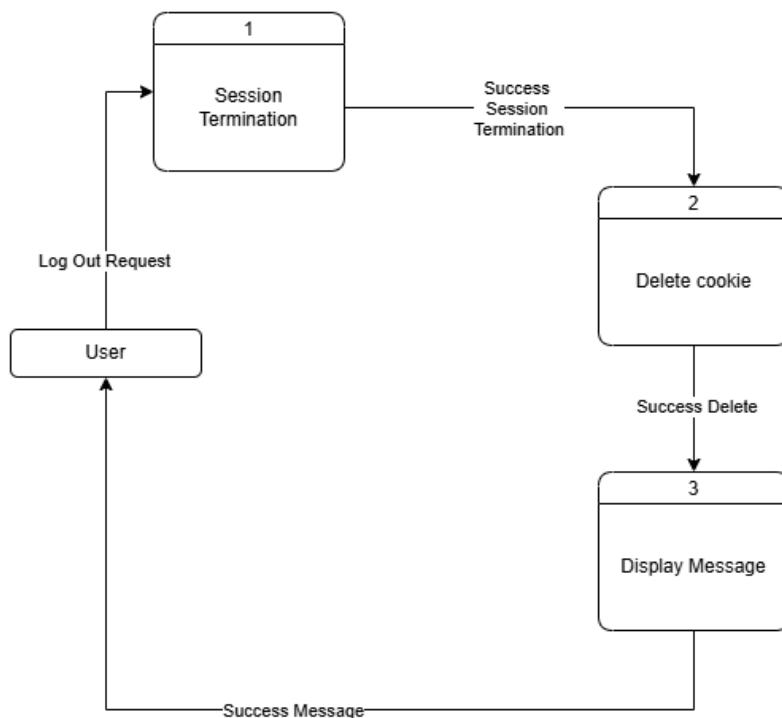


Scenario 2 – Brief Explanation for Unsuccessful Forgot Password

If a user attempts to reset their password but provides an incorrect security question (Process 1), the system checks the database and fails to find a match (Process 2). A message is displayed (Process 3) to indicate failure of reset Password.

2.1.1.3 Log Out – Data Flow Diagram

Scenario 1 – Successful Log Out



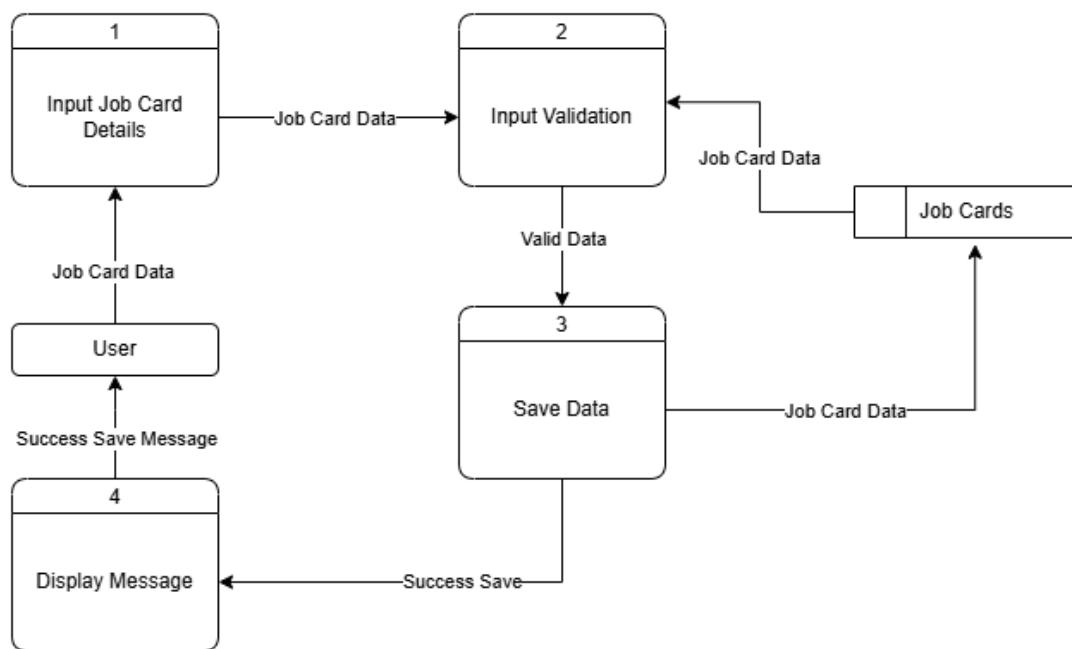
Scenario 1 – Brief Explanation for Successful Log Out

When a user decides to log out, they click the “Logout” button from the menu and the system then terminates their session (Process 1) and deletes the cookie from user (Process 2). Once the session and deletion successfully ended, the user is redirected to the login page or homepage, ensuring they must log in again to regain access. A confirmation message (Process 3) to indicate successful Log Out.

2.1.2 Jobs Management - Data Flow Diagram

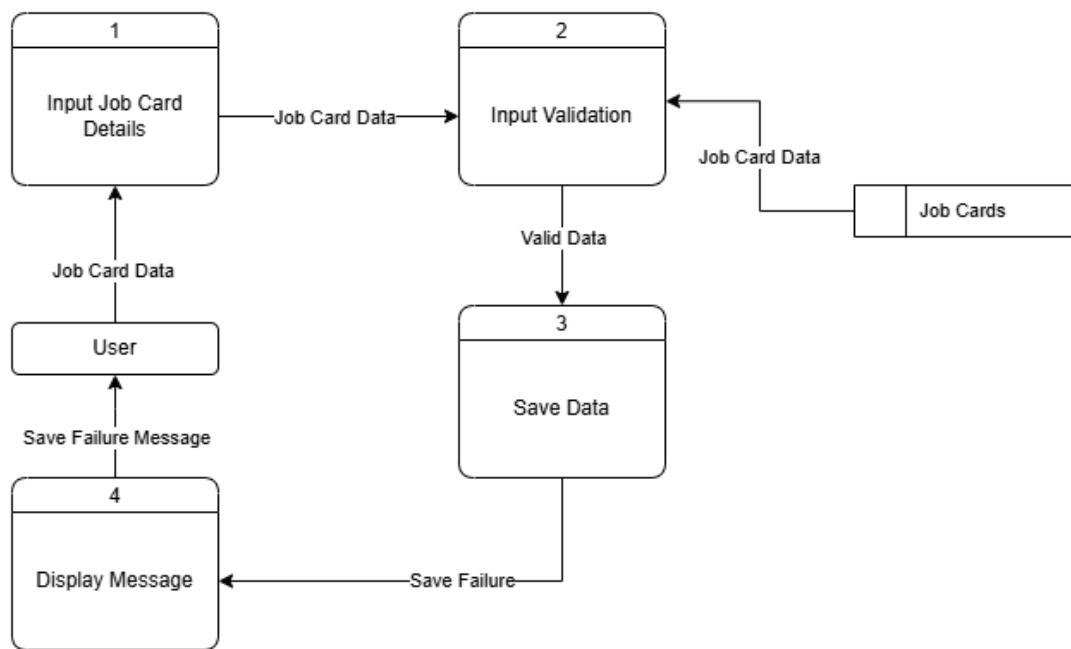
2.1.2.1 Add New Job Card – Data Flow Diagram

Scenario 1 – Successful Add New Job Card



Scenario 1 – Brief Explanation for Successful Add New Job Card

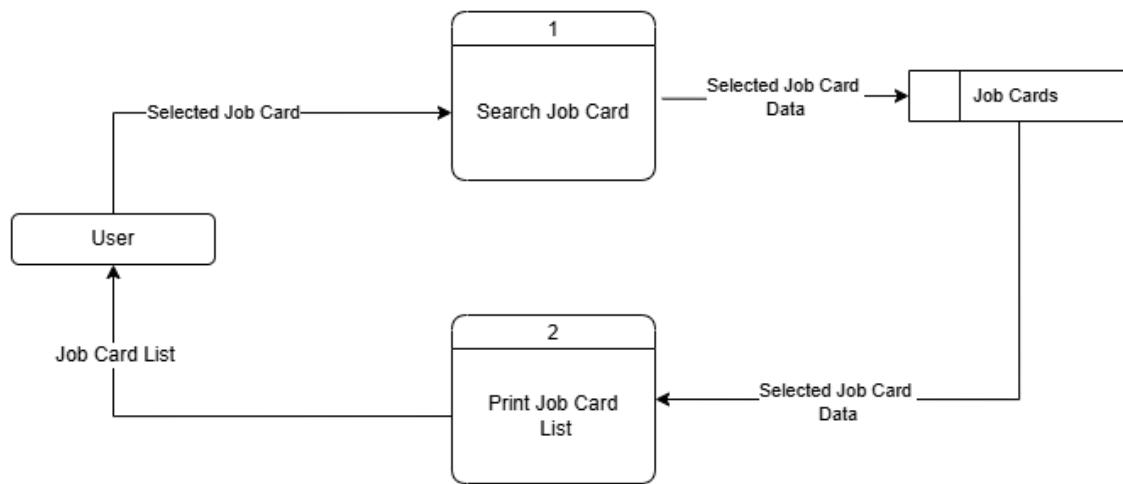
When a user wants to input a new Job Card, they provide the necessary data. The system first processes the input (Process 1) and sends the Job card data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a success message (Process 4) and displays it to the user, confirming that Job Card details have been successfully recorded.

Scenario 2 – Unsuccessful Add New Job Card**Scenario 2 – Brief Explanation for Unsuccessful Add New Job Card**

When a user inputs new Job Card, the system first processes the input (Process 1) and sends the Job Card data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Job Card could not be saved successfully.

2.1.2.2 Print Job Cards List – Data Flow Diagram

Scenario 1 – Successful Print Job Cards List

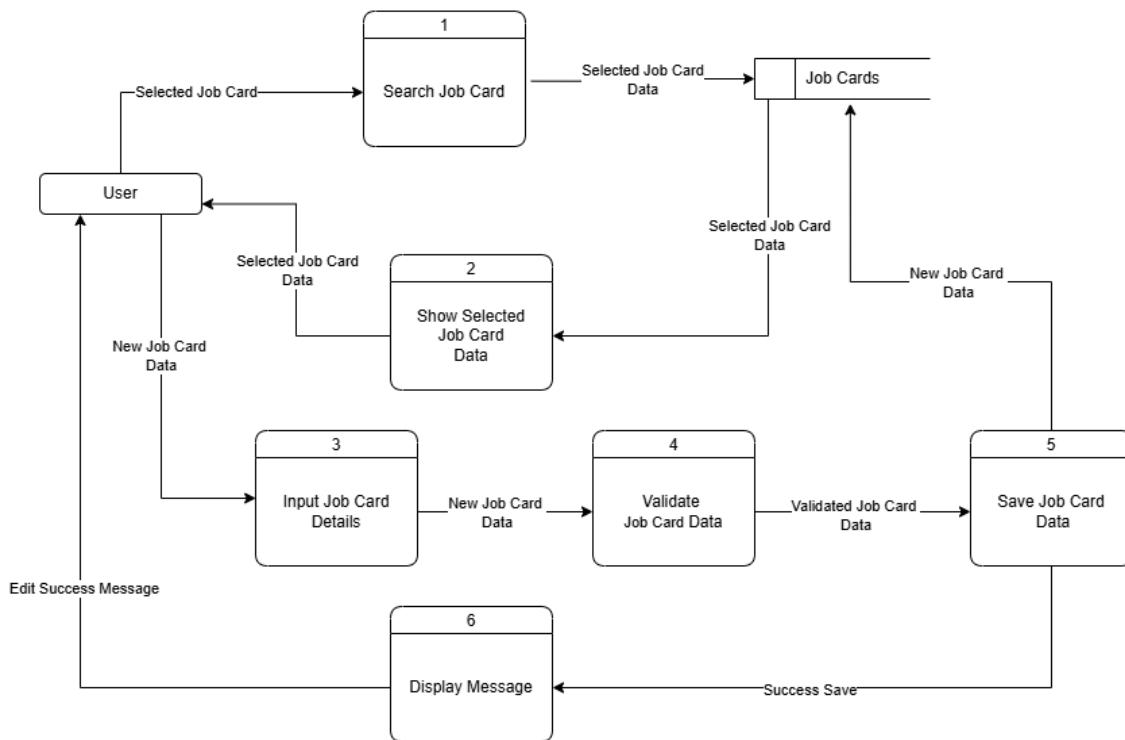


Scenario 1 – Brief Explanation for Successful Print Job Card List

When a user selects to print Job Card List, the system first search for the Job Card data (Process 1) in the Job Cards database. Then, the system proceeds to print the Job Card List details (Process 2) retrieved from database.

2.1.2.3 Edit Job Card – Data Flow Diagram

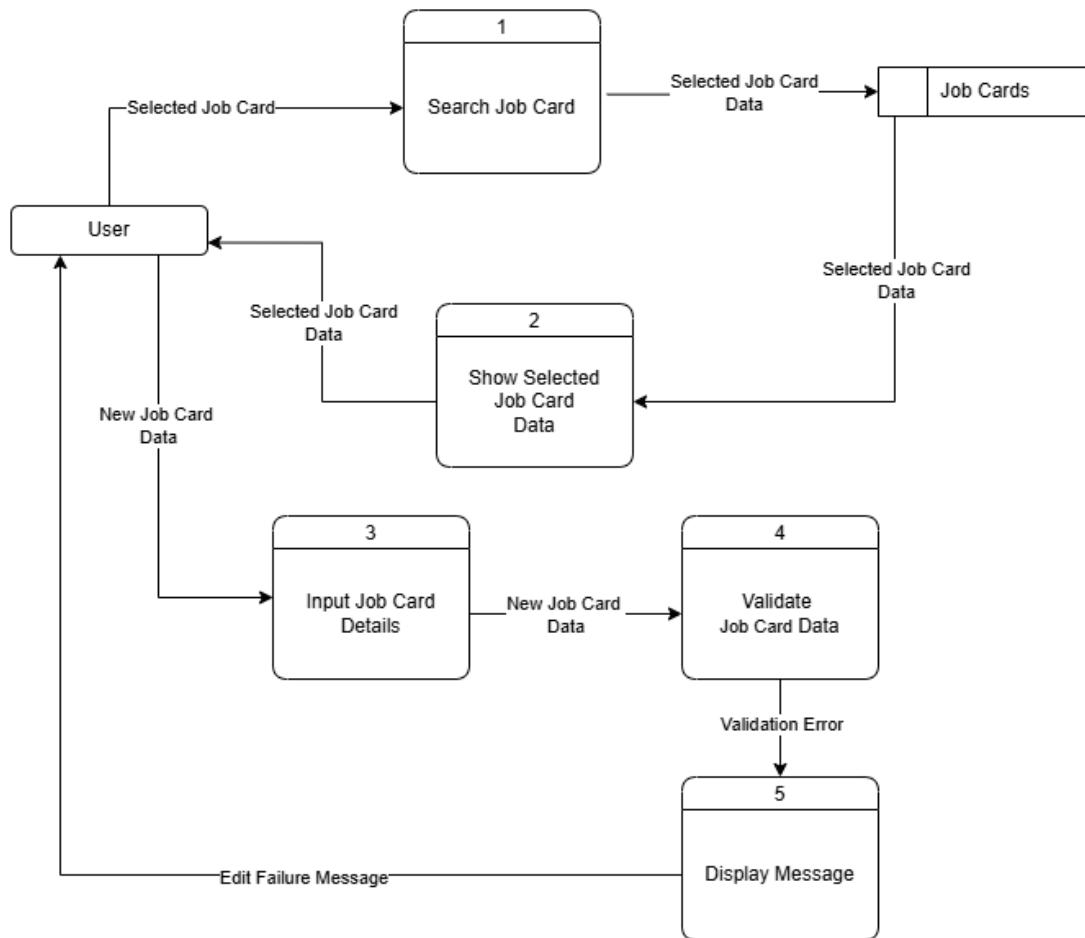
Scenario 1 – Successful Edit Job Card



Scenario 1 – Brief Explanation for Successful Edit of a Job Card

When a user selects a job card, the system first retrieves the selected job card data from the job cards database (Process 1). The system then displays the retrieved job card details to the user (Process 2). The user can input new job card details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated job card data (Process 5). Upon successful saving, the system displays a success message to the user (Process 6), confirming that the job card data has been successfully updated.

Scenario 2 – Unsuccessful Edit Job Card

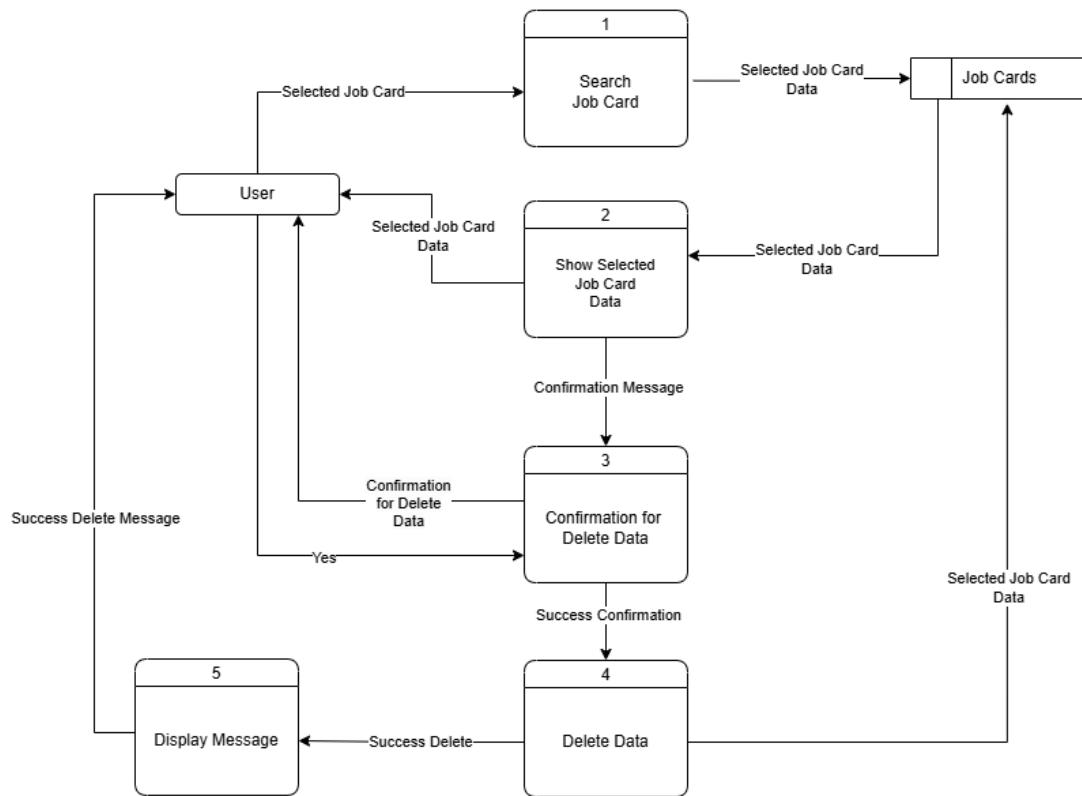


Scenario 2 – Brief Explanation for Unsuccessful Edit Job Card

When a user selects a job card, the system retrieves the selected job card data from the job cards database (Process 1). The system then displays the retrieved job card details to the user (Process 2). The user can input new job card details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.2.4 Delete Job Card – Data Flow Diagram

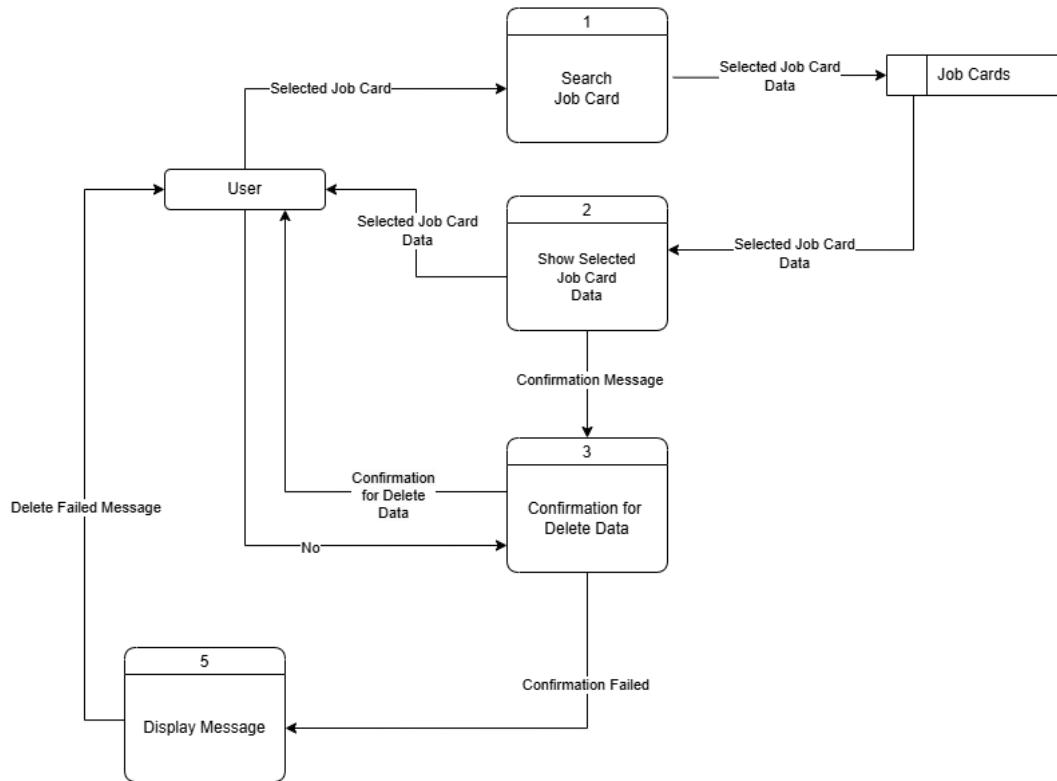
Scenario 1 – Successful Delete Job Card



Scenario 1 – Brief Explanation for Successful Delete Job Card

When a user selects a job card, the system retrieves the selected job card data from the job cards database (Process 1). The system then displays the retrieved job card details to the user (Process 2). If the user decides to delete the job card, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected job card data (Process 4). Once the data is successfully deleted, the system displays a success message to the user (Process 5), confirming that the job card has been deleted.

Scenario 2 – Unsuccessful Delete Job Card

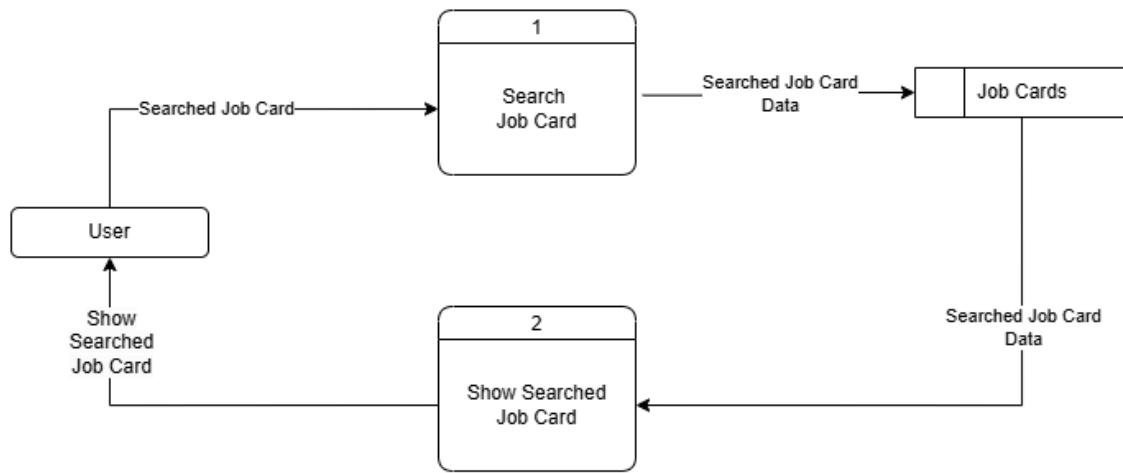


Scenario 2 – Brief Explanation for Unsuccessful Delete Job Card

When a user selects a job card, the system retrieves the selected job card data from the job cards database (Process 1). The system then displays the retrieved job card details to the user (Process 2). If the user attempts to delete the job card, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the job card data was not deleted.

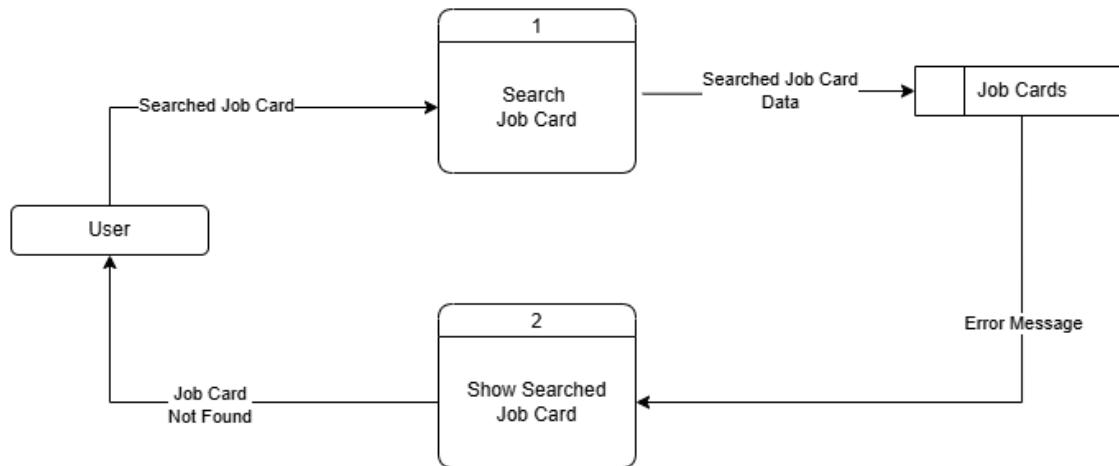
2.1.2.5 Search Job Card – Data Flow Diagram

Scenario 1 – Successful Search Job Card



Scenario 1 – Brief Explanation for Successful Search Job Card

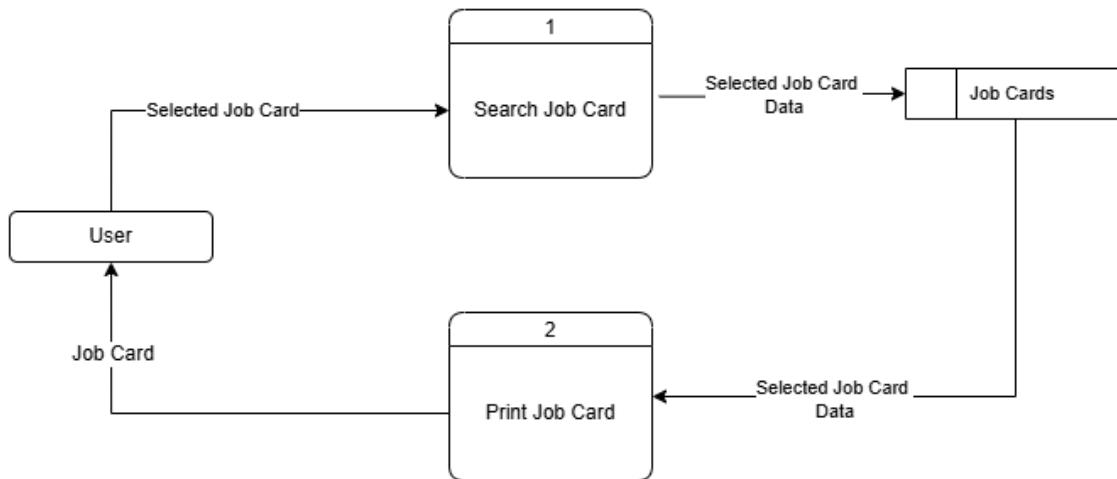
The user initiates a search for a job card by providing search criteria (Process 1). The system retrieves the relevant job card data from the job cards database. The system then displays the searched job card data to the user (Process 2), enabling the user to view the job card details.

Scenario 2 – Unsuccessful Search Job Card**Scenario 2 – Brief Explanation for Unsuccessful Search Job Card**

The user initiates a search for a job card by providing search criteria (Process 1). The system attempts to retrieve the relevant job card data from the job cards database. If no matching job card is found, the system generates an error message and sends it back to the user. The system then displays an empty view to the user (Process 2), informing them of the unsuccessful search.

2.1.2.6 Print Job Card – Data Flow Diagram

Scenario 1 – Successful Print Job Card



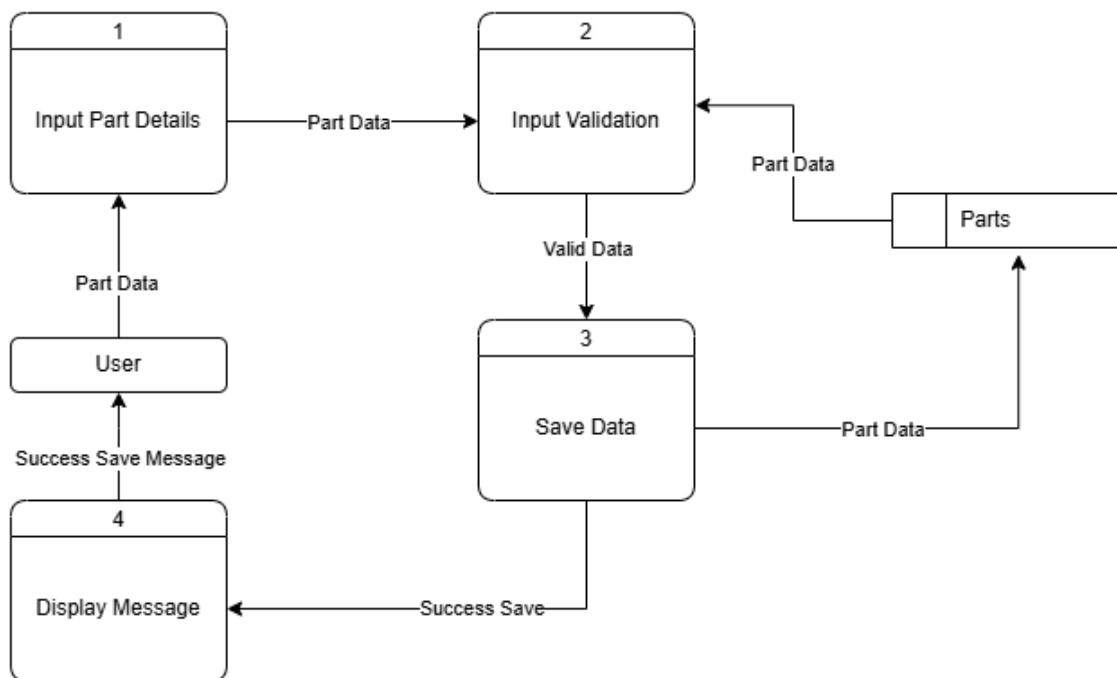
Scenario 1 – Brief Explanation for Successful Print Job Card

When a user selects to print Job Card, the system first search for the Job Card data (Process 1) in the Job Cards database. Then, the system proceeds to print the Job Card details (Process 2) retrieved from database.

2.1.3 Part Management- Data Flow Diagram

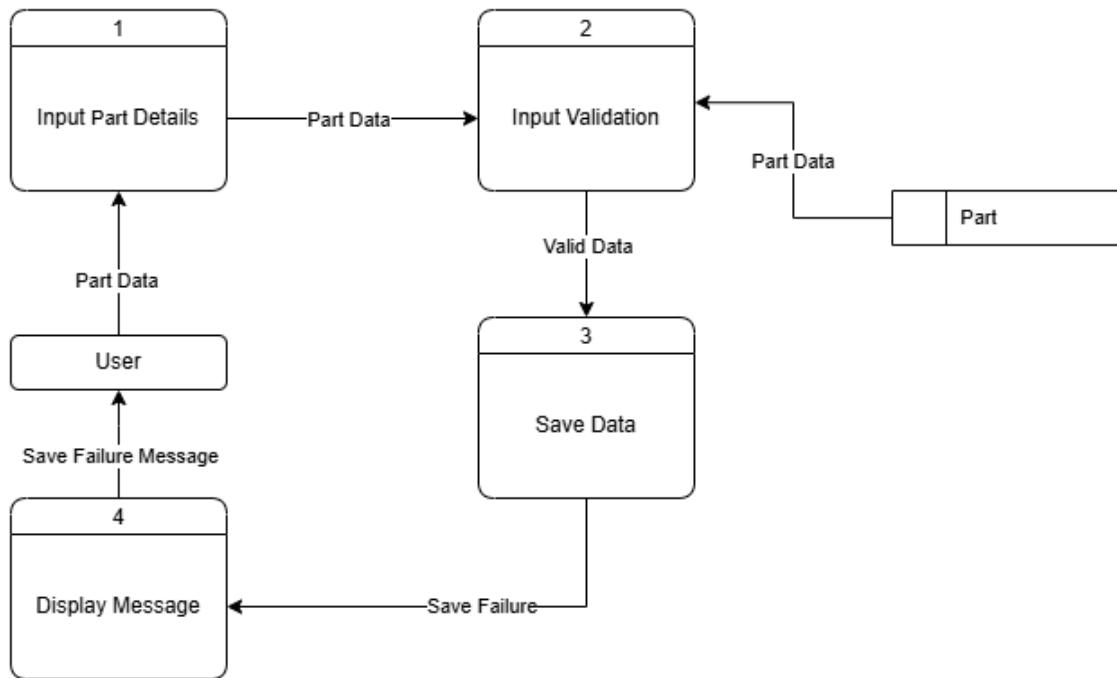
2.1.3.1 Add New Part - Data Flow Diagram

Scenario 1 – Successful Add New Part



Scenario 1 – Brief Explanation for Successful Add New Part

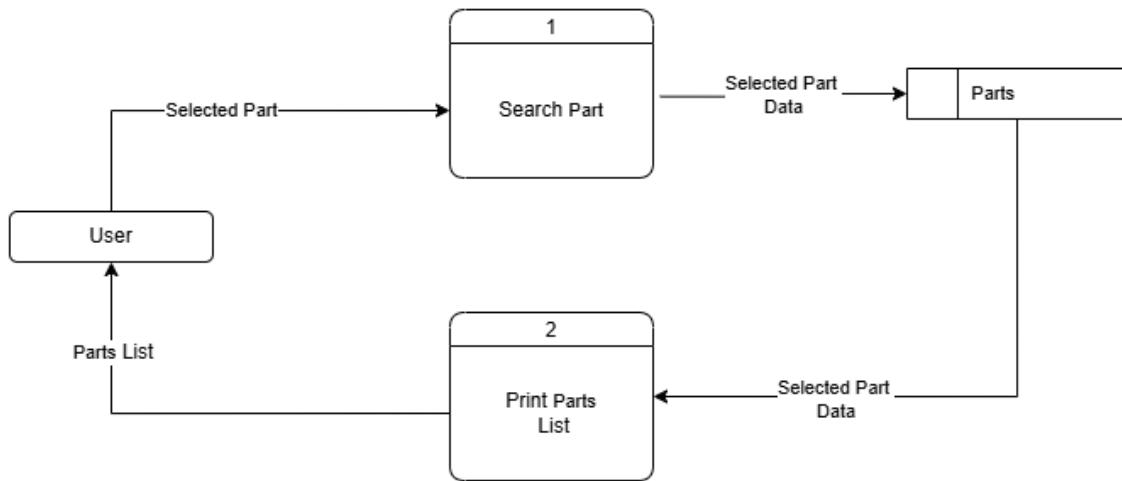
When a user wants to input a new Part, they provide the necessary data. The system first processes the input (Process 1) and sends the Part data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a success message (Process 4) and displays it to the user, confirming that Part details have been successfully recorded.

Scenario 2 – Unsuccessful Add New Part**Scenario 2 – Brief Explanation for Unsuccessful Add New Part**

When a user inputs new Part, the system first processes the input (Process 1) and sends the Part data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Part could not be saved successfully.

2.1.3.2 Print Part List – Data Flow Diagram

Scenario 1 – Successful Print Parts List

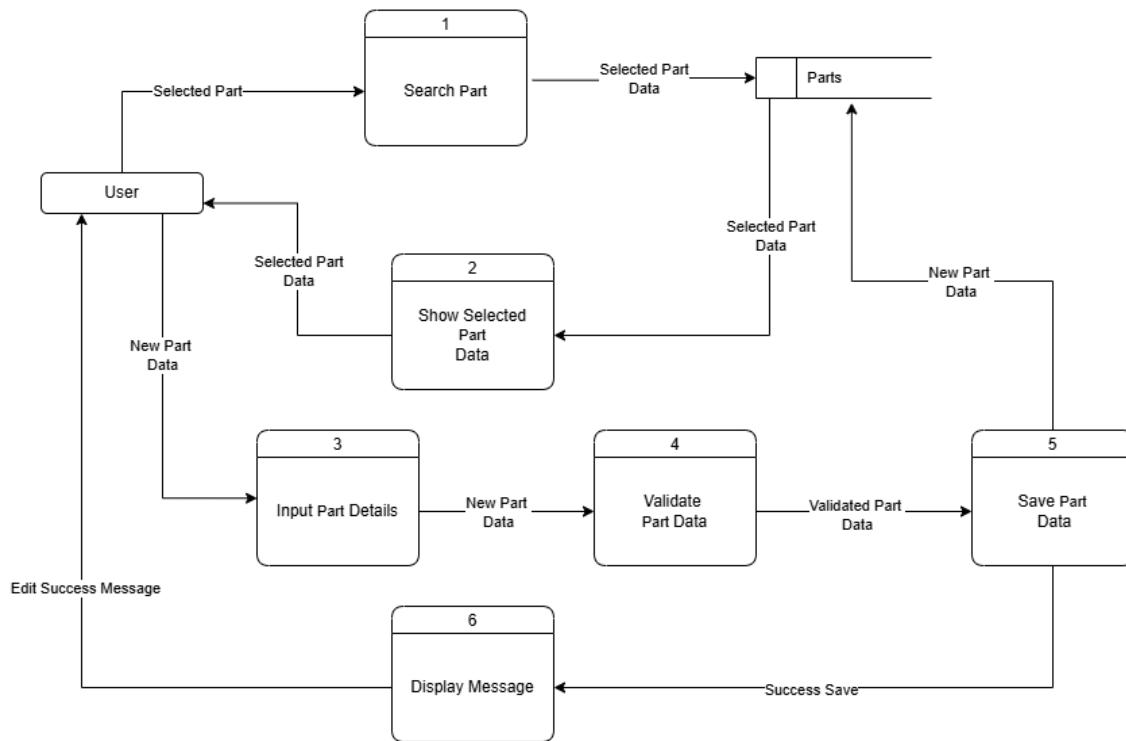


Scenario 1 – Brief Explanation for Successful Print Parts List

When a user selects to print Part List, the system first search for the Part data (Process 1) in the Parts database. Then, the system proceeds to print the Part List details (Process 2) retrieved from database.

2.1.3.3 Edit Part – Data Flow Diagram

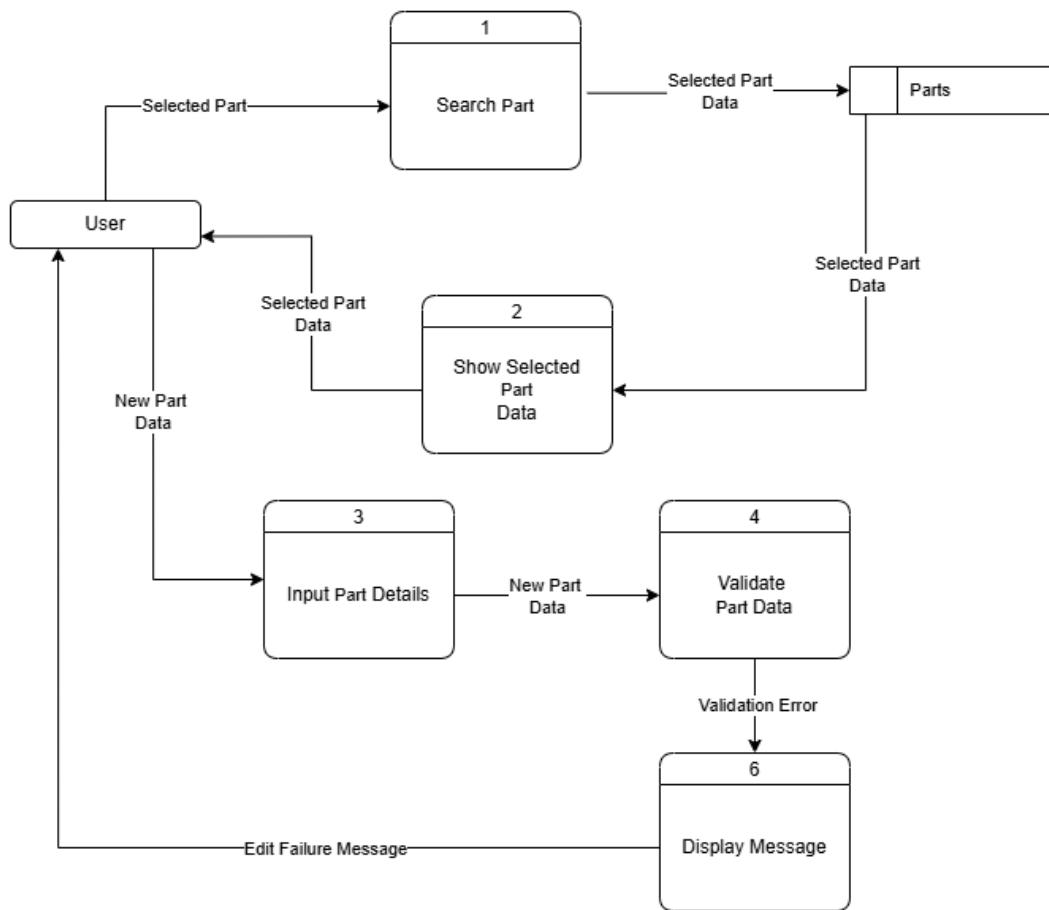
Scenario 1 – Successful Edit Part



Scenario 1 – Brief Explanation for Successful Edit Part

When a user selects a Part, the system first retrieves the selected Part data from parts database (Process 1). The system then displays the retrieved Part details to the user (Process 2). The user can input new Part details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated Part data (Process 5). Upon successful saving, the system displays a success message to the user (Process 6), confirming that the Part data has been successfully updated.

Scenario 2 – Unsuccessful Edit Part

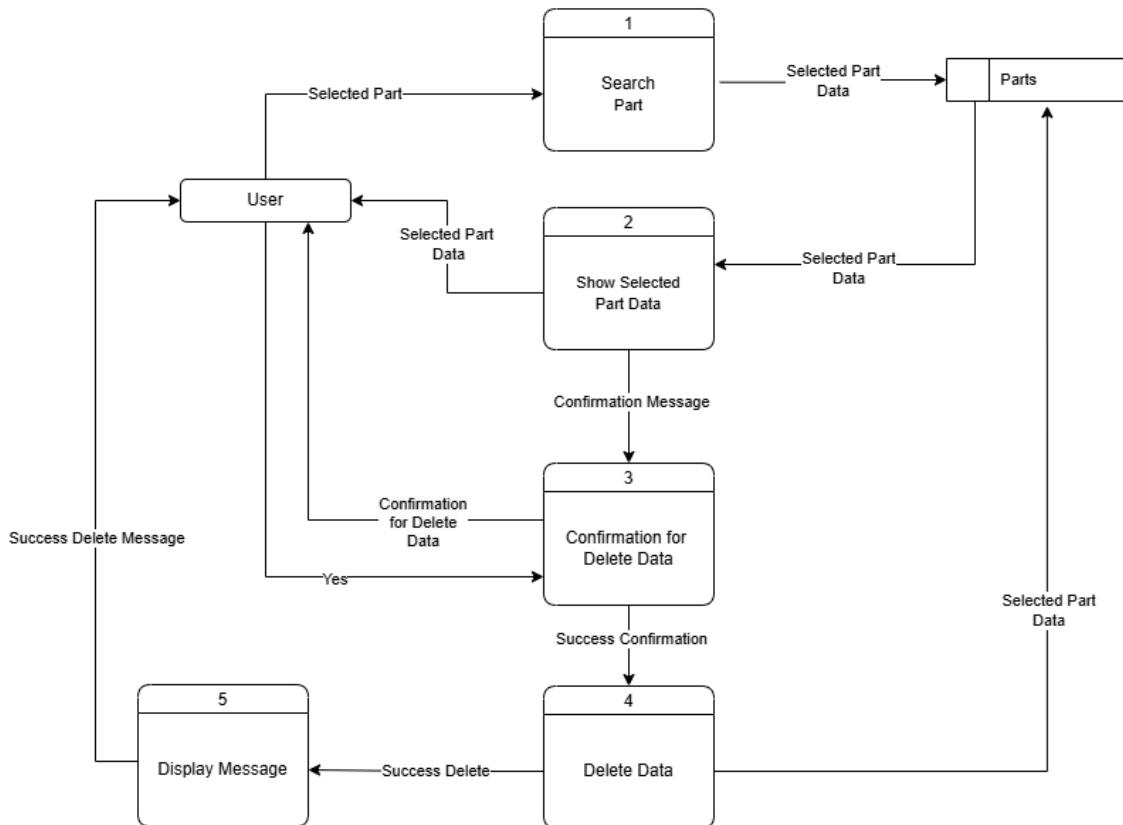


Scenario 2 – Brief Explanation for Unsuccessful Edit Part

When a user selects a Part, the system retrieves the selected Part data from the parts database (Process 1). The system then displays the retrieved Part details to the user (Process 2). The user can input new Part details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.3.4 Delete Part - Data Flow Diagram

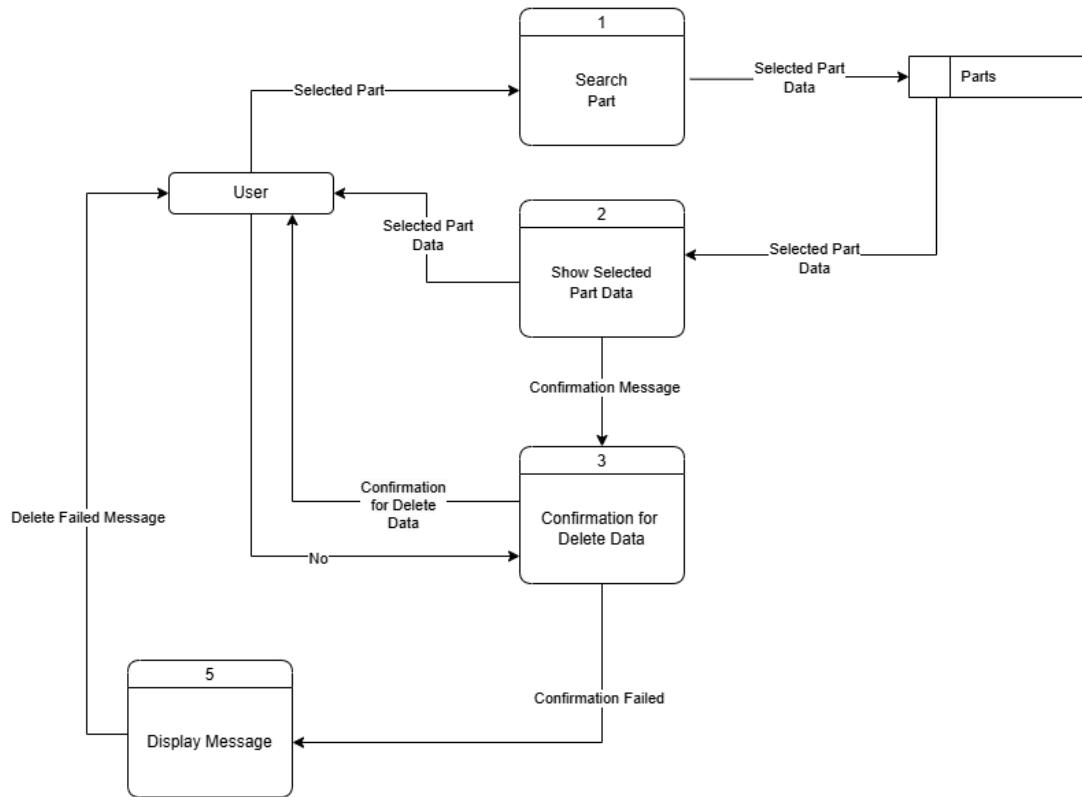
Scenario 1 – Successful Delete Part



Scenario 1 – Brief Explanation for Successful Delete Part

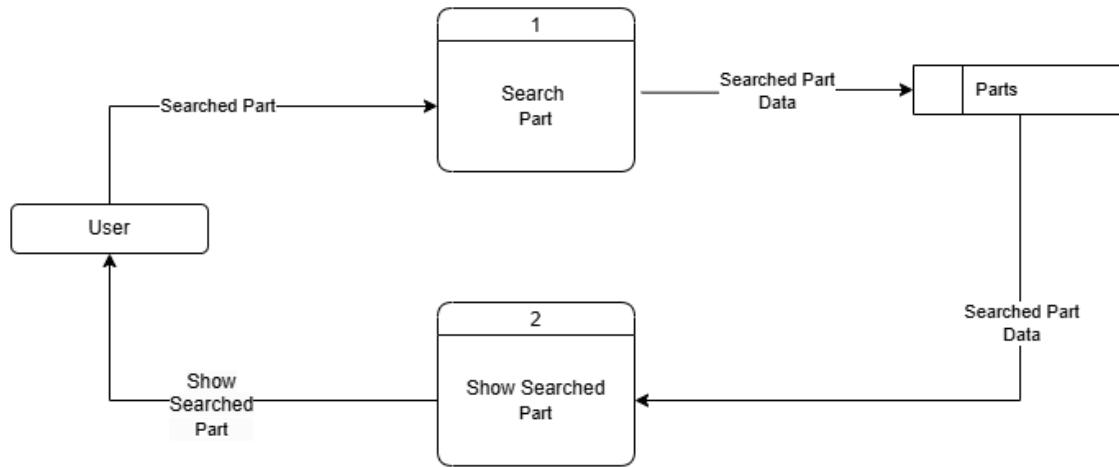
When a user selects a Part, the system retrieves the selected Part data from the parts database (Process 1). The system then displays the retrieved Part details to the user (Process 2). If the user decides to delete the Part, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected Part data (Process 4). Once the data is successfully deleted, the system displays a success message to the user (Process 5), confirming that the Part has been deleted.

Scenario 2 – Unsuccessful Delete Part

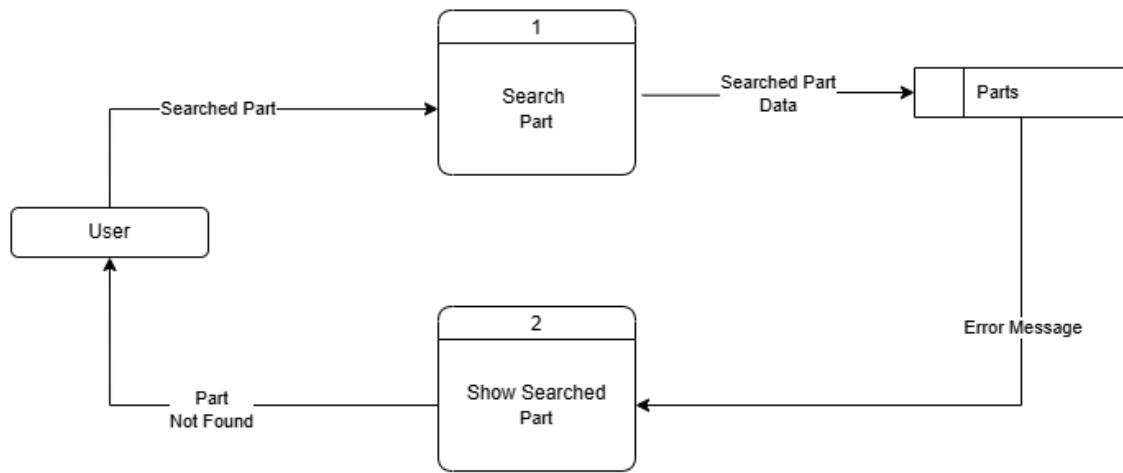


Scenario 2 – Brief Explanation for Unsuccessful Delete Part

When a user selects a Part, the system retrieves the selected Part data from the parts database (Process 1). The system then displays the retrieved Part details to the user (Process 2). If the user attempts to delete the Part, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the Part data was not deleted.

Scenario 1 – Successful Search Part**Scenario 1 – Brief Explanation for Successful Search Part**

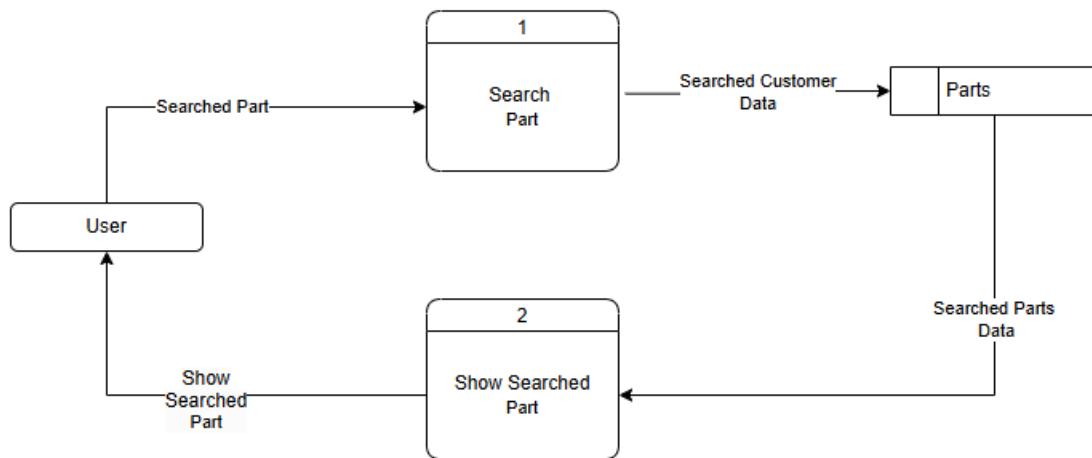
The user initiates a search for a Part by providing search criteria (Process 1). The system retrieves the relevant Part data from the Parts database. The system then displays the searched Part data to the user (Process 2), enabling the user to view the Part details.

Scenario 2 – Unsuccessful Search Part**Scenario 2 – Brief Explanation for Unsuccessful Search Part**

The user initiates a search for a Part by providing search criteria (Process 1). The system attempts to retrieve the relevant part data from the Parts database. If no matching Part is found, the system generates an error message and sends it back to the user. The system then displays a "Part Not Found" message to the user (Process 2), informing them of the unsuccessful search.

2.1.3.5 Search Part – Data Flow Diagram

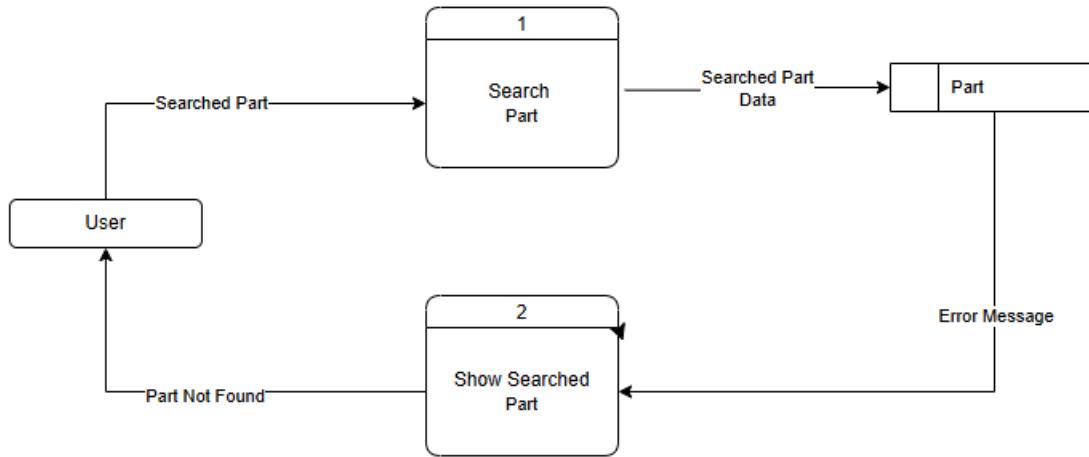
Scenario 1 – Successful Search Part



Scenario 1 – Brief Explanation for Successful Search Part

The user initiates a search for a Part by providing search criteria (Process 1). The system retrieves the relevant Part data from the Parts database. The system then displays the searched Part data to the user (Process 2), enabling the user to view the Part details.

Scenario 2 – Unsuccessful Search Part

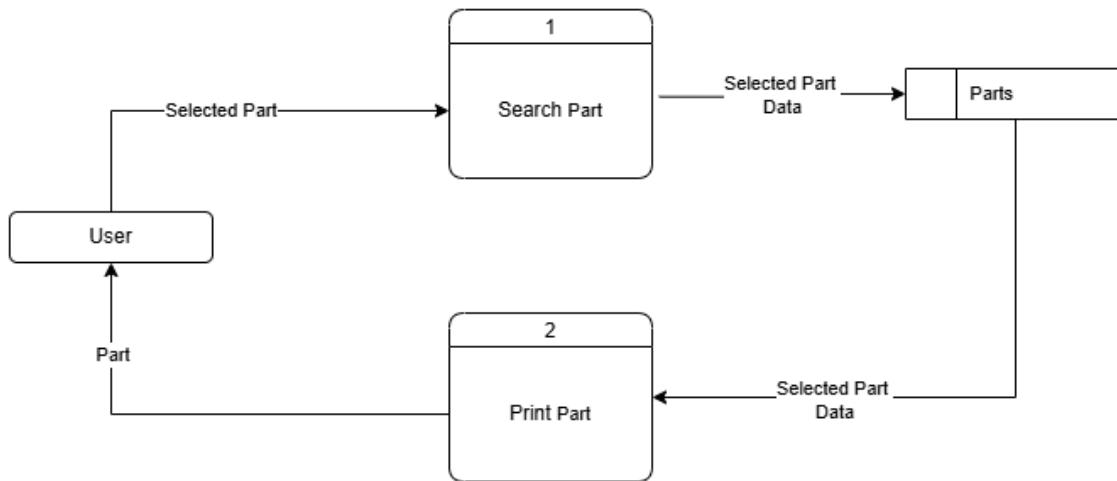


Scenario 2 – Brief Explanation for Unsuccessful Search Part

The user initiates a search for a Part by providing search criteria (Process 1). The system attempts to retrieve the relevant Part data from the Customers database. If no matching Part is found, the system generates an error message and sends it back to the user. The system then displays an empty view to the user (Process 2), informing them of the unsuccessful search.

2.1.3.6 Print Part – Data Flow Diagram

Scenario 1 – Successful Print Part

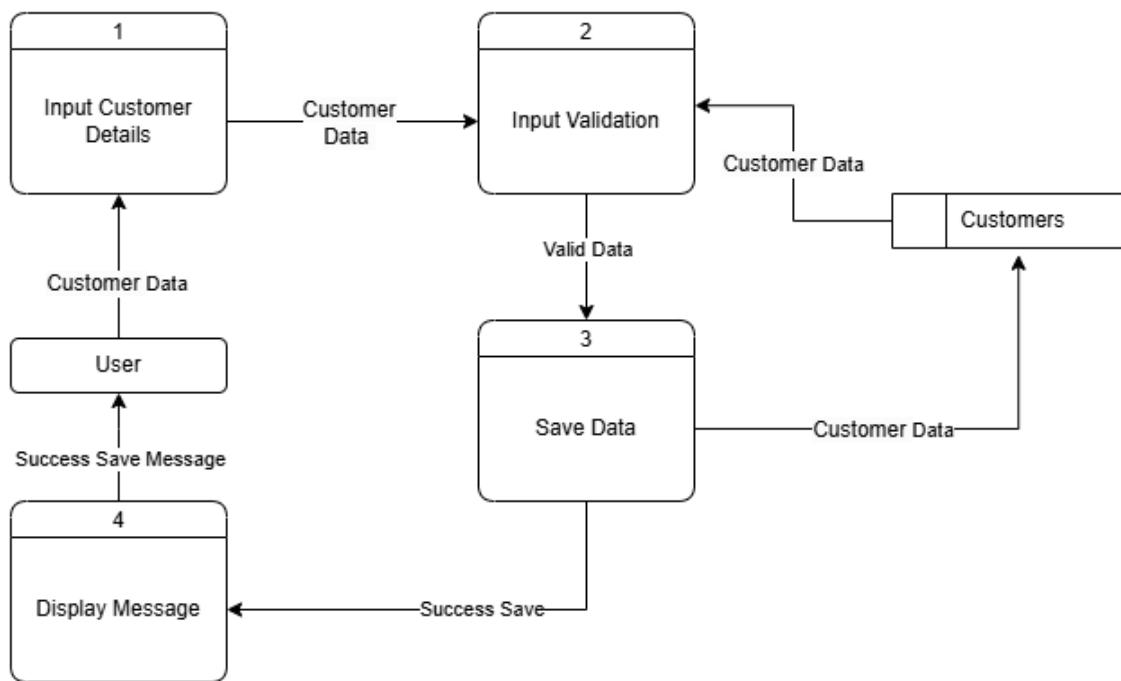
**Scenario 1 – Brief Explanation for Successful Print Part**

When a user selects to print a Part, the system first search for the Part data (Process 1) in the Parts database. Then, the system proceeds to print the Part details (Process 2) retrieved from database.

2.1.4 Customer Management - Data Flow Diagram

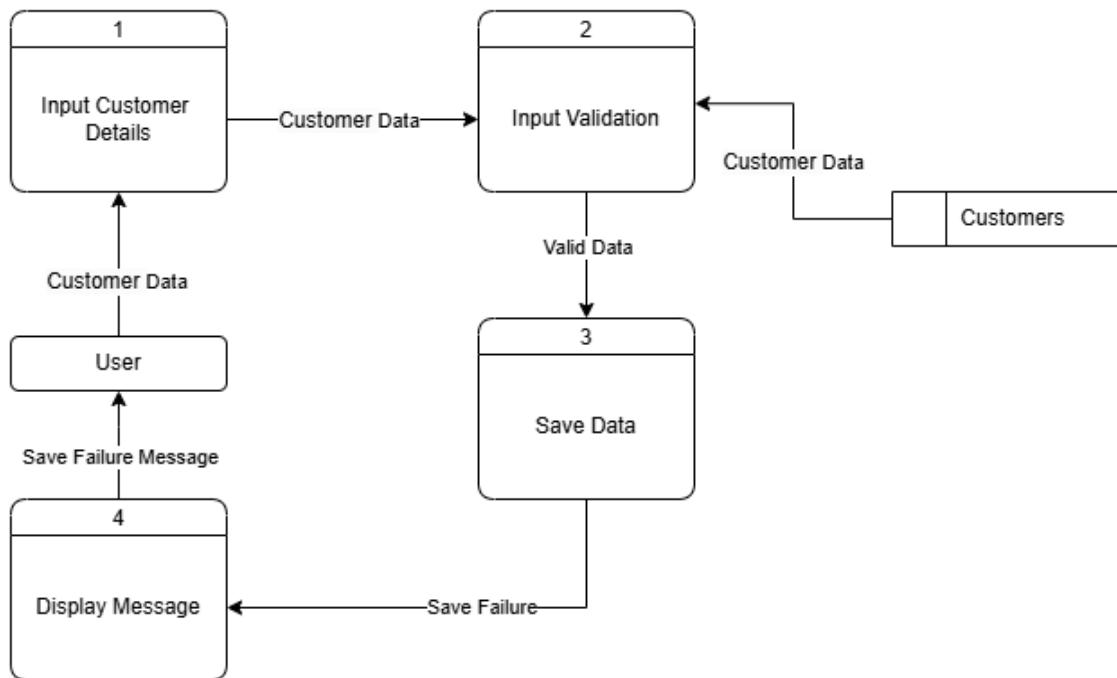
2.1.4.1 Add New Customer - Data Flow Diagram

Scenario 1 – Successful Add New Customer



Scenario 1 – Brief Explanation for Successful Add New Customer

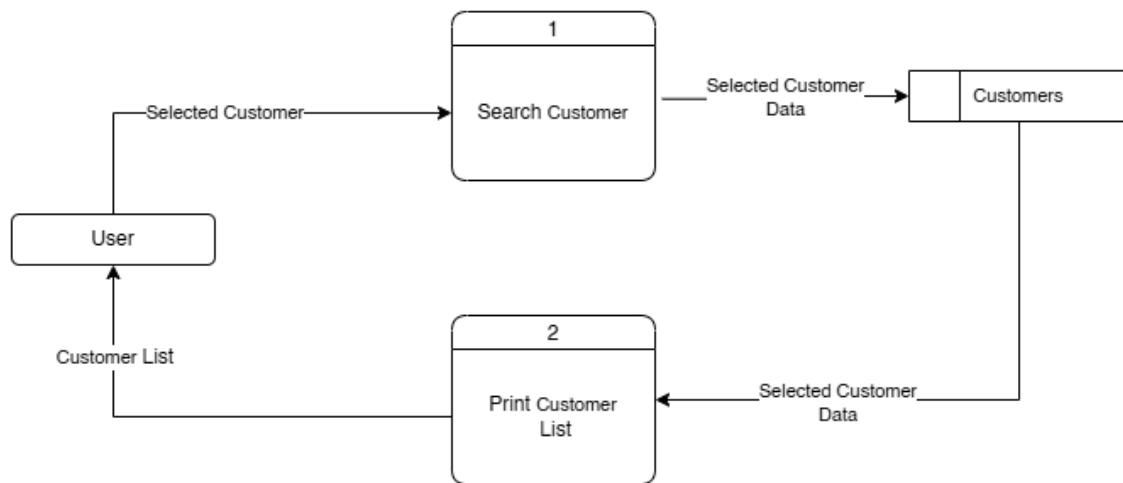
When a user wants to input a new Customer, they provide the necessary data. The system first processes the input (Process 1) and sends the Customer data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a success message (Process 4) and displays it to the user, confirming that Customer details have been successfully recorded.

Scenario 2 – Unsuccessful Add New Customer**Scenario 2 – Brief Explanation for Unsuccessful Add New Customer**

When a user inputs new Customer, the system first processes the input (Process 1) and sends the Customer data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Customer could not be saved successfully.

2.1.4.2 Print Customer List – Data Flow Diagram

Scenario 1 – Successful Print Customer List

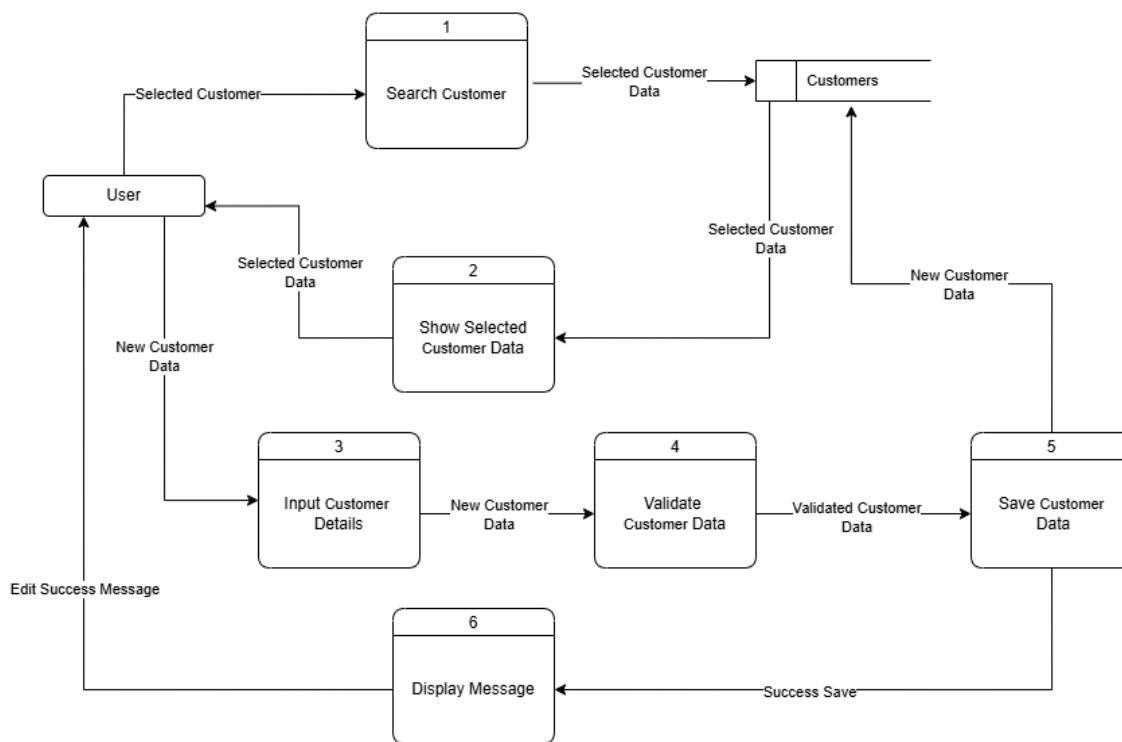


Scenario 1 – Brief Explanation for Successful Print Customer List

When a user selects to print Customer List, the system first search for the Customer data (Process 1) in the Customers database. Then, the system proceeds to print the Customer List details (Process 2) retrieved from database.

2.1.4.3 Edit Customer – Data Flow Diagram

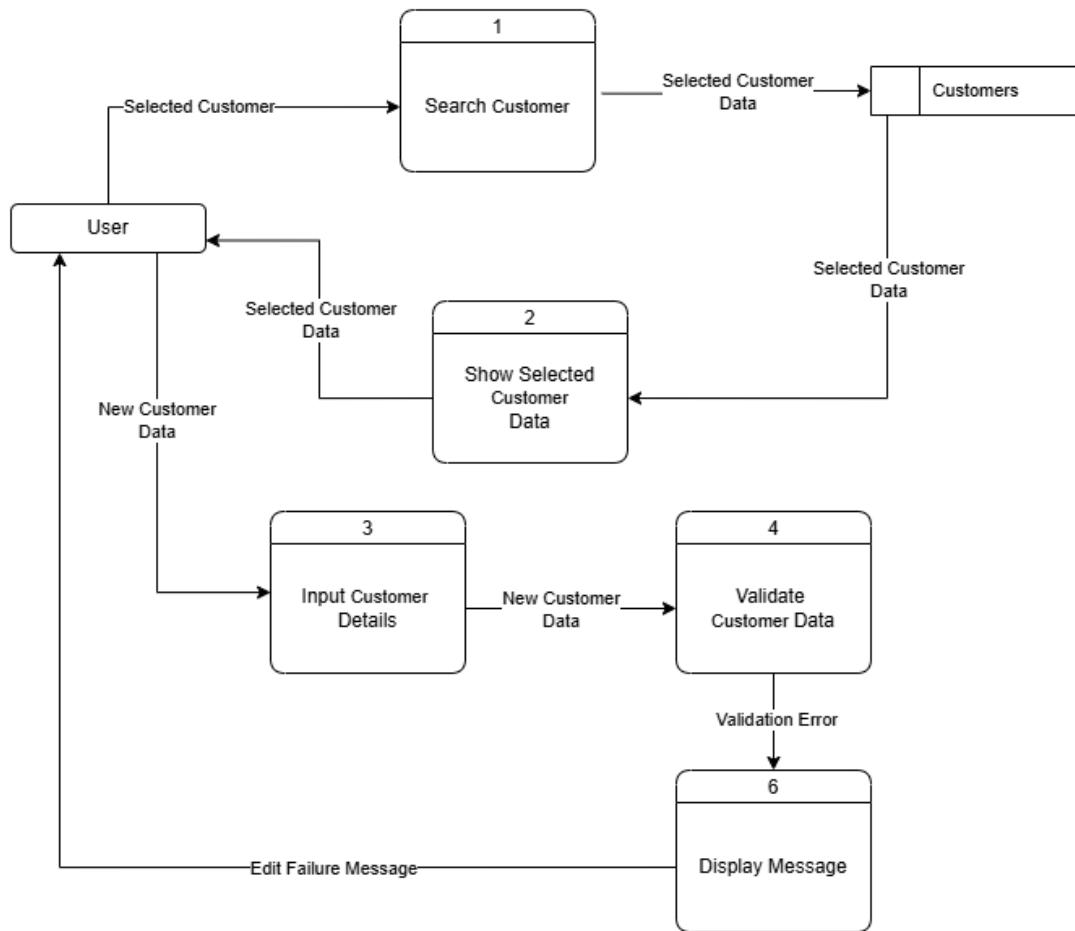
Scenario 1 – Successful Edit Customer



Scenario 1 – Brief Explanation for Successful Edit Customer

When a user selects a customer, the system first retrieves the selected Customer data from the Customers database (Process 1). The system then displays the retrieved Customer details to the user (Process 2). The user can input new Customer details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated Customer data (Process 5). Upon successful saving, the system displays a success message to the user (Process 6), confirming that the Customer data has been successfully updated.

Scenario 2 – Unsuccessful Edit Customer

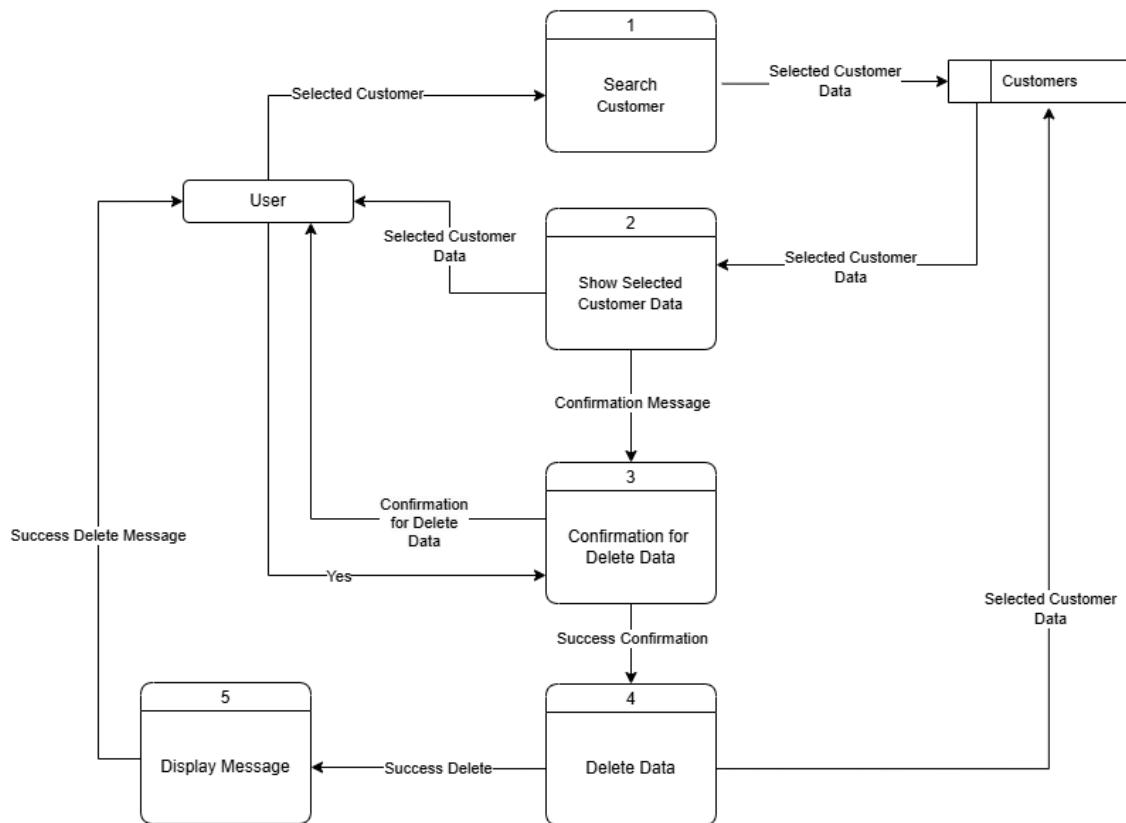


Scenario 2 – Brief Explanation for Unsuccessful Edit Customer

When a user selects a Customer, the system retrieves the selected Customer data from the Customers database (Process 1). The system then displays the retrieved Customer details to the user (Process 2). The user can input new Customer details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.4.4 Delete Customer – Data Flow Diagram

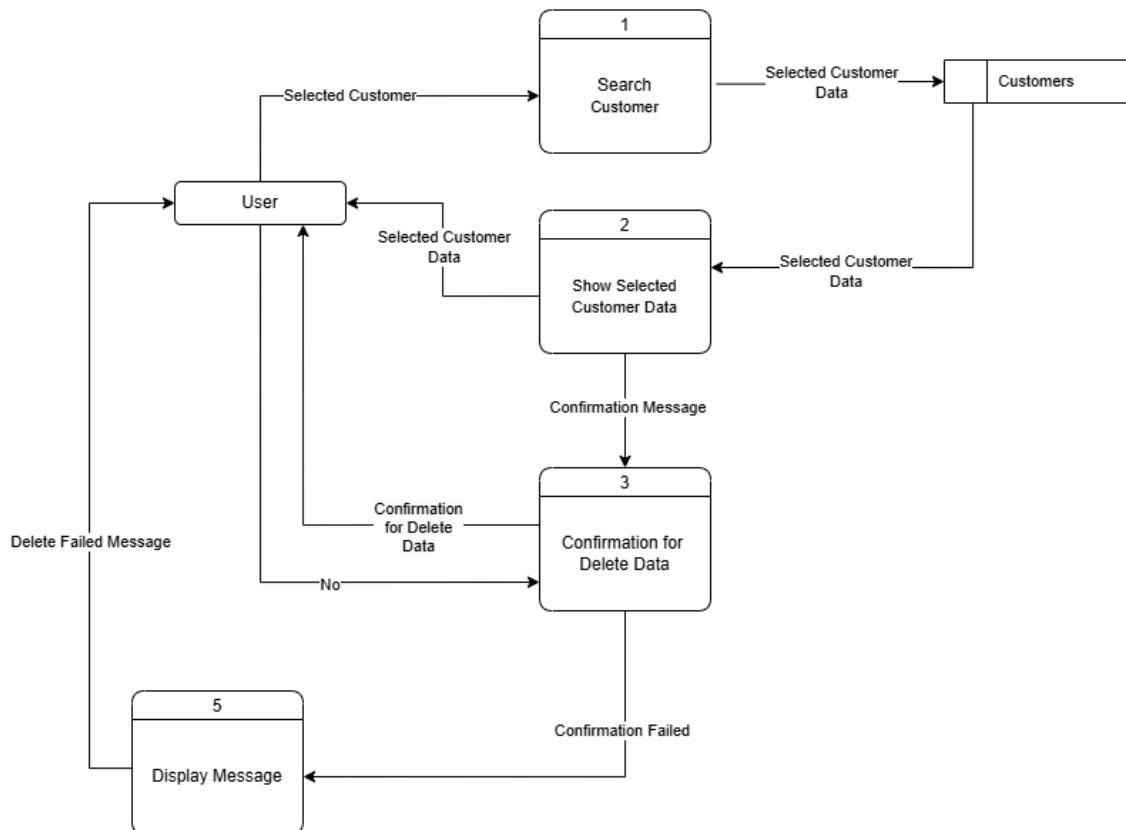
Scenario 1 – Successful Delete Customer



Scenario 1 – Brief Explanation for Successful Delete Customer

When a user selects a Customer, the system retrieves the selected Customer data from the Customers database (Process 1). The system then displays the retrieved Customer details to the user (Process 2). If the user decides to delete the Customer, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected Customer data (Process 4). Once the data is successfully deleted, the system displays a success message to the user (Process 5), confirming that the Customer has been deleted.

Scenario 2 – Unsuccessful Delete Customer

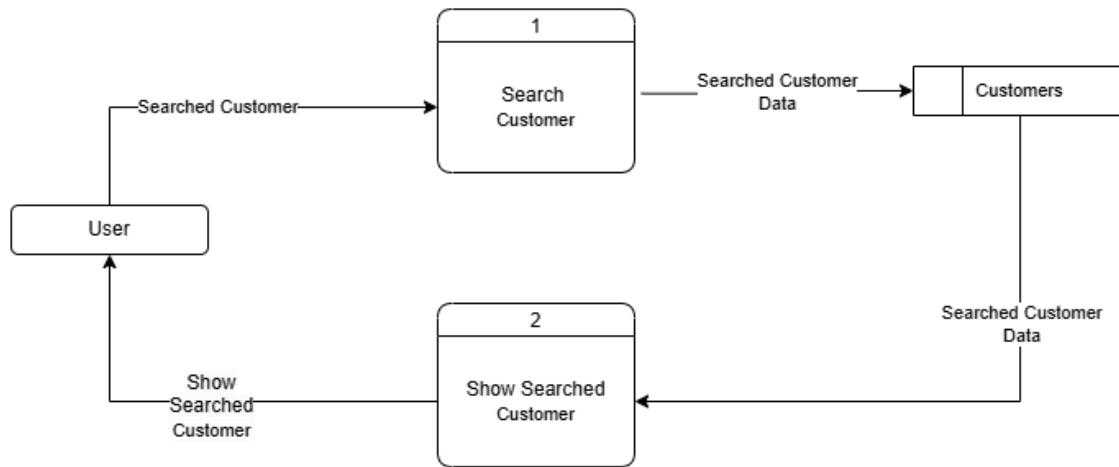


Scenario 2 – Brief Explanation for Unsuccessful Delete Customer

When a user selects a Customer, the system retrieves the selected Customer data from the Customers database (Process 1). The system then displays the retrieved Customer details to the user (Process 2). If the user attempts to delete the Customer, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the Customer data was not deleted.

2.1.4.5 Search Customer – Data Flow Diagram

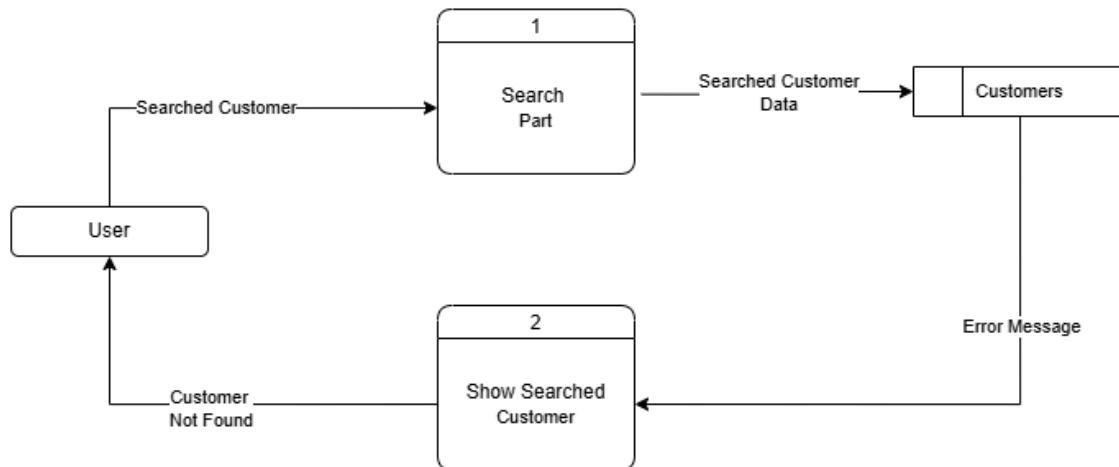
Scenario 1 – Successful Search Customer



Scenario 1 – Brief Explanation for Successful Search Customer

The user initiates a search for a Customer by providing search criteria (Process 1). The system retrieves the relevant Customer data from the Customers database. The system then displays the searched Customer data to the user (Process 2), enabling the user to view the Customer details.

Scenario 2 – Unsuccessful Search Customer

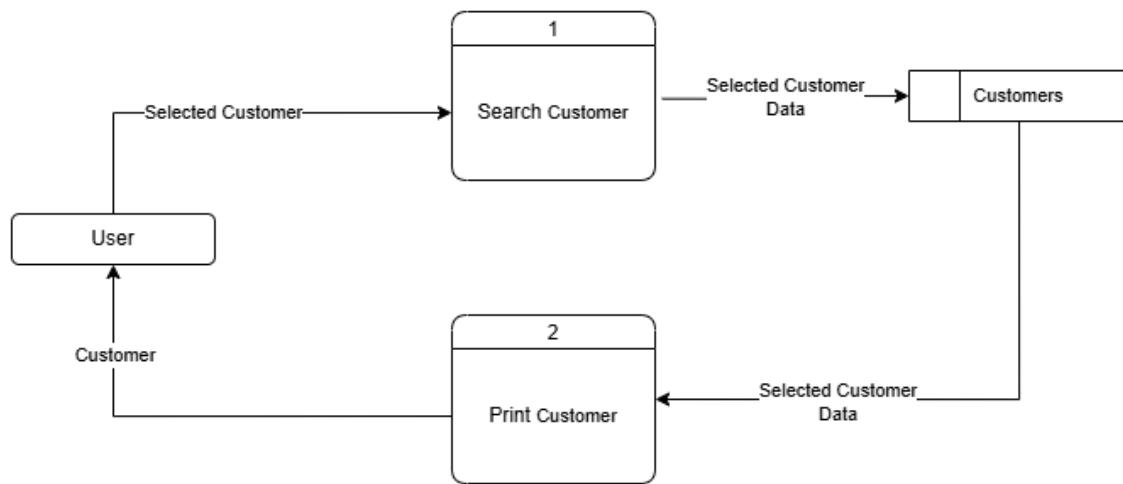


Scenario 2 – Brief Explanation for Unsuccessful Search Customer

The user initiates a search for a Customer by providing search criteria (Process 1). The system attempts to retrieve the relevant Customer data from the Customers database. If no matching Customer is found, the system generates an error message and sends it back to the user. The system then displays an empty view to the user (Process 2), informing them of the unsuccessful search.

2.1.4.6 Print Customer – Data Flow Diagram

Scenario 1 – Successful Print Customer



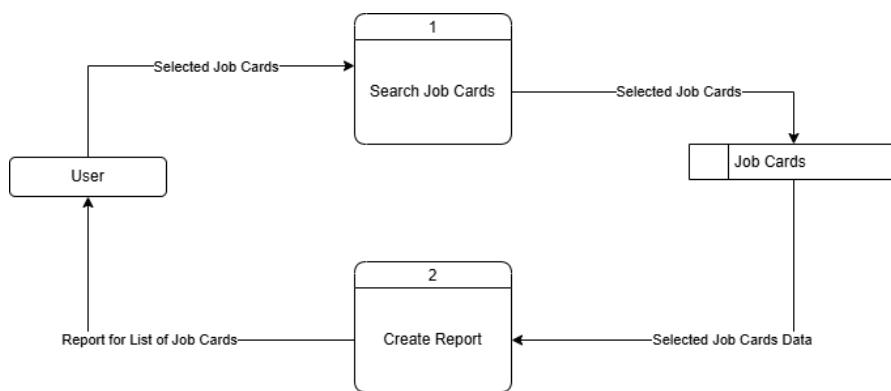
Scenario 1 – Brief Explanation for Successful Print Customer

When a user selects to print Customer, the system first search for the Customer data (Process 1) in the Customers database. Then, the system proceeds to print the Customer details (Process 2) retrieved from database.

2.1.5 Accounting Management - Data Flow Diagram

2.1.5.1 Create Report for Job Cards List

Scenario 1 – Successful Creation of Report for Job Cards List

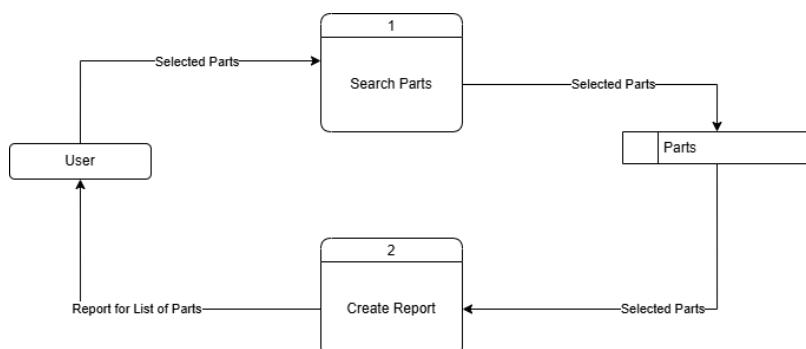


Scenario 1 – Brief explanation for successful report creation for Job Cards List

When a user selects to print a report for Job Cards List, the system first search for the Job Cards data (Process 1) in the Job Cards database. Then, the system proceeds to print the report (Process 2), with the details retrieved from database.

2.1.5.2 Create Report for Parts List

Scenario 1 – Successful Creation of Report for Parts List

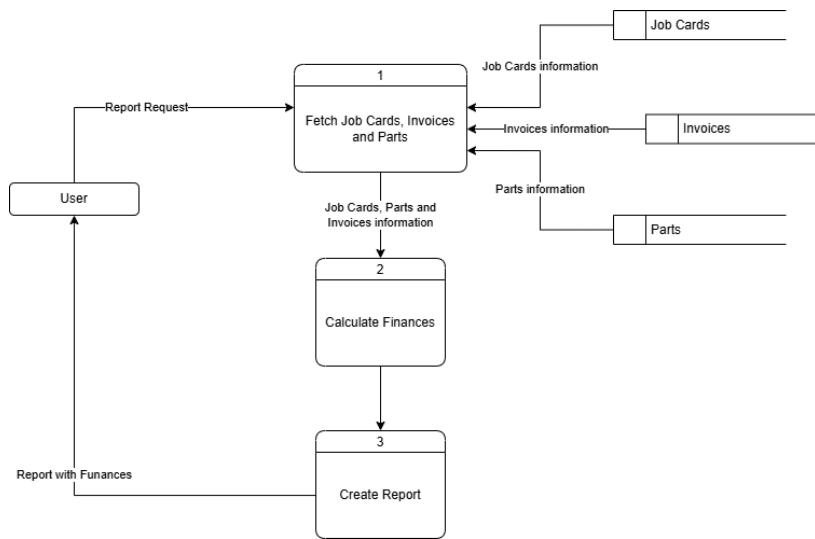


Scenario 1 – Brief explanation for successful report creation for Parts List

When a user selects to print a report for Parts List, the system first search for the Parts data (Process 1) in the Parts database. Then, the system proceeds to print the report (Process 2), with the details retrieved from database.

2.1.5.3 Create Report for Finances

Scenario 1 – Successful Creation of Report for Finances

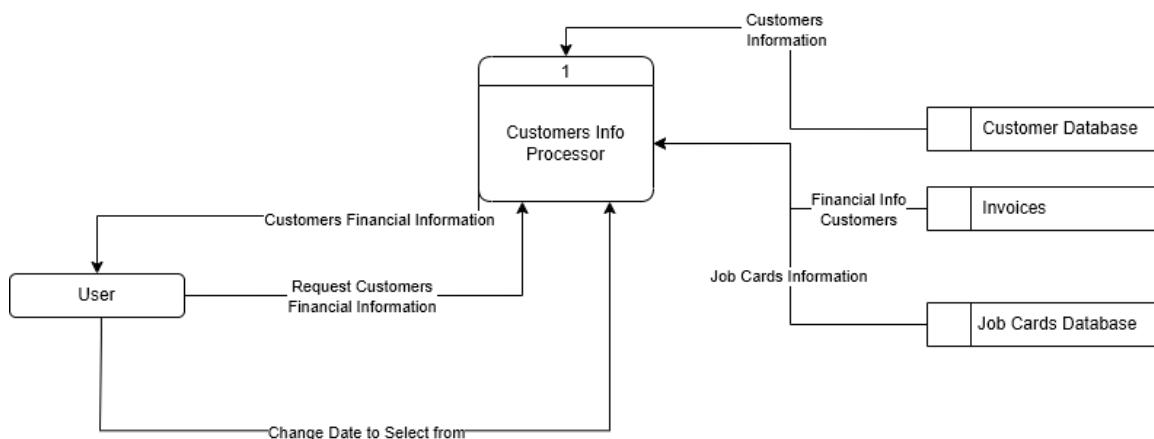


Scenario 1 – Brief explanation for successful report creation for Finances

When a user selects to print a report for Finances, the system first fetches the Parts, Job Cards and Invoices data (Process 1) in the Parts, Job Cards and Invoices database. Then, the system calculates from this data the finances (Process 2) and then proceeds to print the report (Process 3).

2.1.5.4 View Job Cards Details - Data Flow Diagram

Scenario 1 – Successful display financial job card information

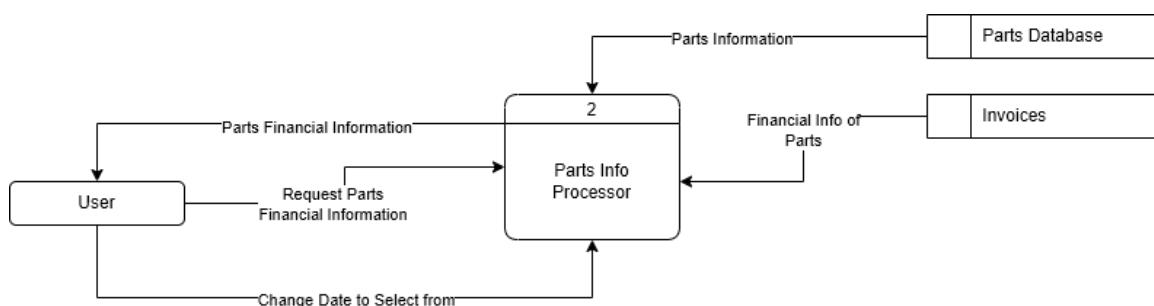


Scenario 1 – Brief Explanation of displaying financial job card information

The user requests the customer information, the information is then assembled together depending on the customer, invoices and job cards and the user can change the date of selection to view job cards in a sorted matter, then they are displayed.

2.1.5.5 View Parts Details - Data Flow Diagram

Scenario 1 – Successful display financial job card information

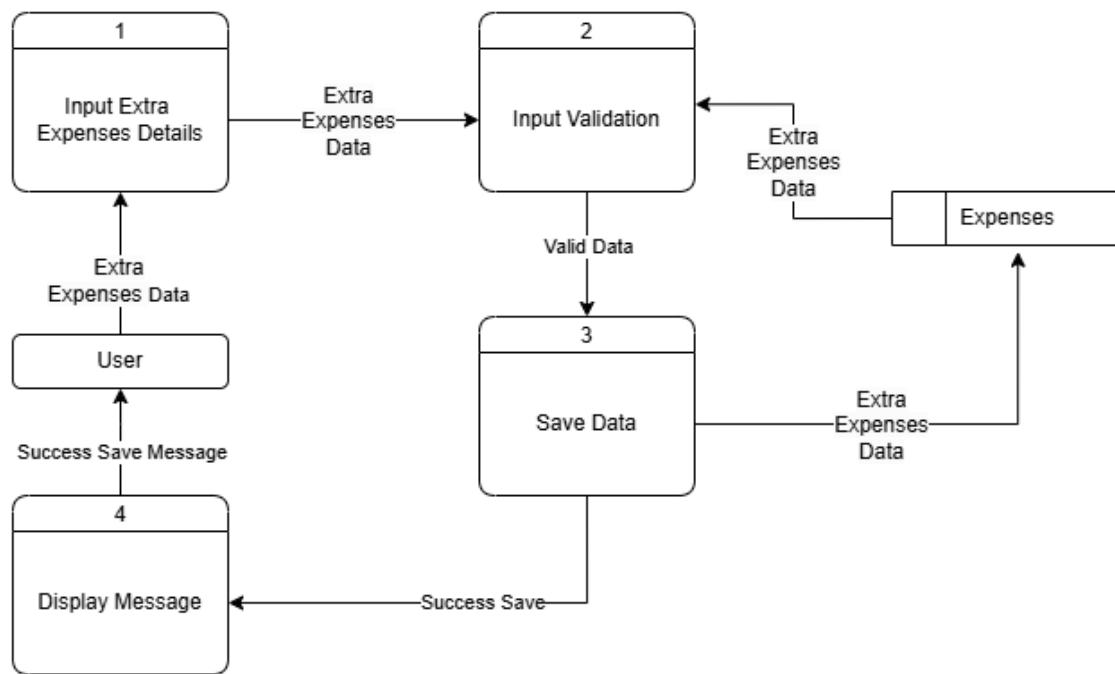


Scenario 1 – Brief Explanation of displaying financial job card information

The users requests the parts, the information is then assembled together depending on the parts and invoices and the user can change the date of selection to view job cards in a sorted matter. The parts are then displayed.

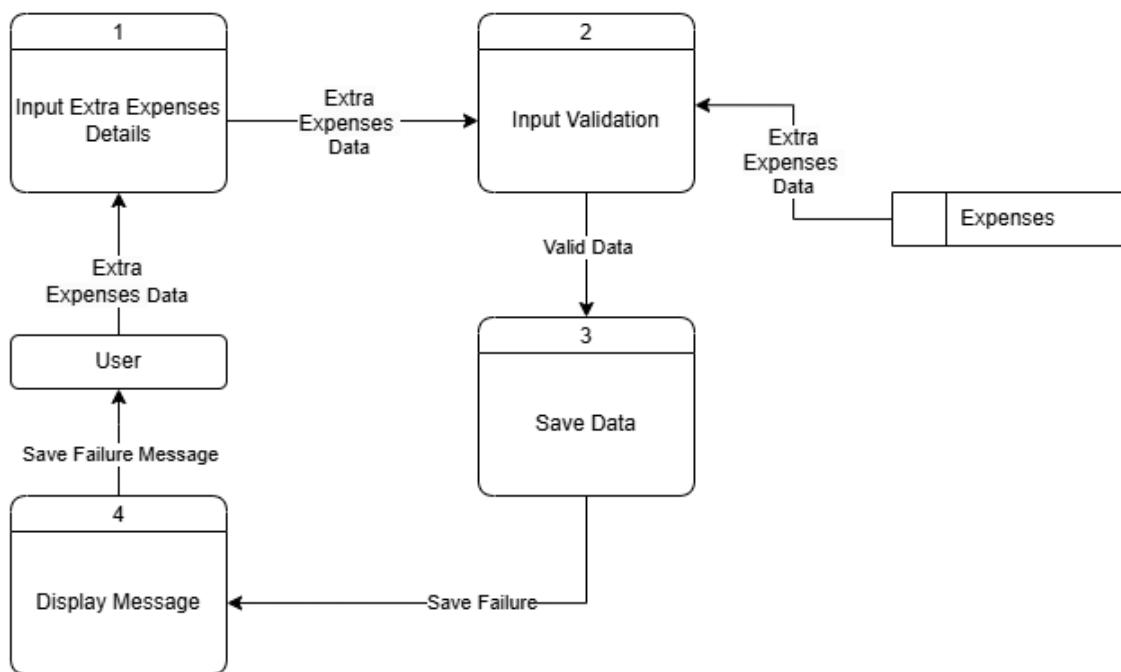
2.1.5.6 Add Extra Expenses - Data Flow Diagram

Scenario 1 – Successful Add Extra Expenses



Scenario 1 – Brief Explanation for Successful Add Extra Expenses

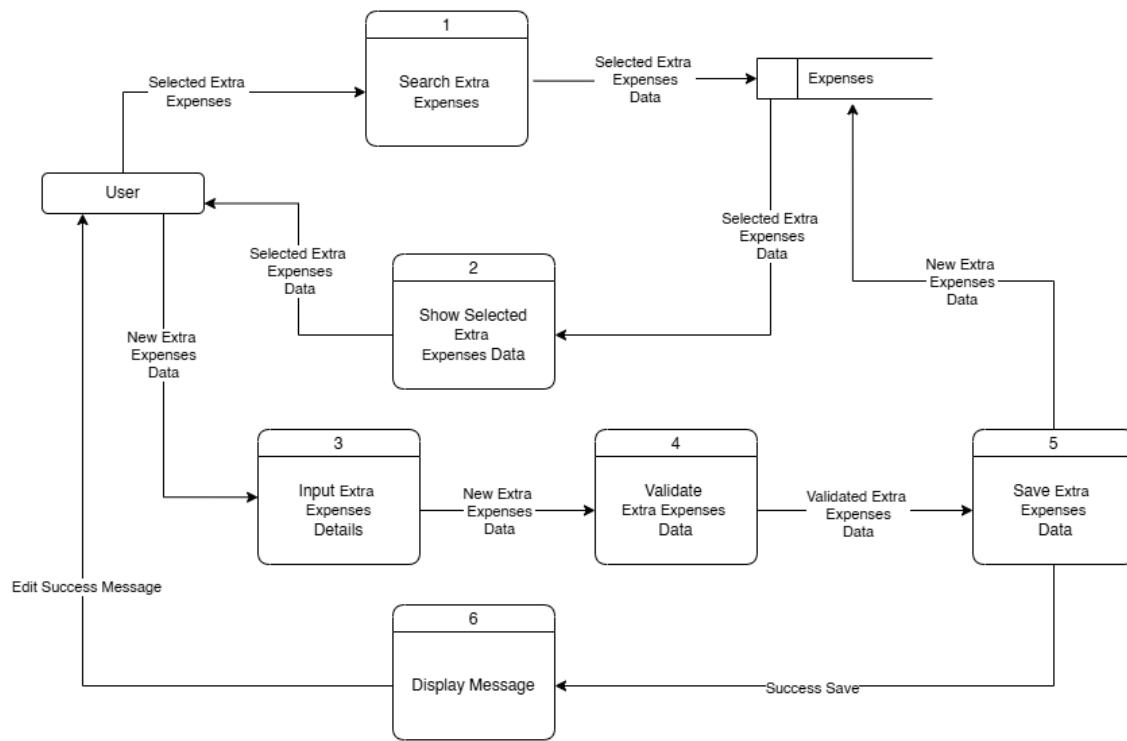
When a user wants to input Extra Expenses, they provide the necessary data. The system first processes the input (Process 1) and sends the Extra Expenses data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a success message (Process 4) and displays it to the user, confirming that Extra Expenses details have been successfully recorded.

Scenario 2 – Unsuccessful Add Extra Expenses**Scenario 2 – Brief Explanation for Unsuccessful Add Extra Expenses**

When a user inputs Extra Expenses, the system first processes the input (Process 1) and sends the Extra Expenses data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Extra Expenses could not be saved successfully.

2.1.5.7 Edit Extra Expenses - Data Flow Diagram

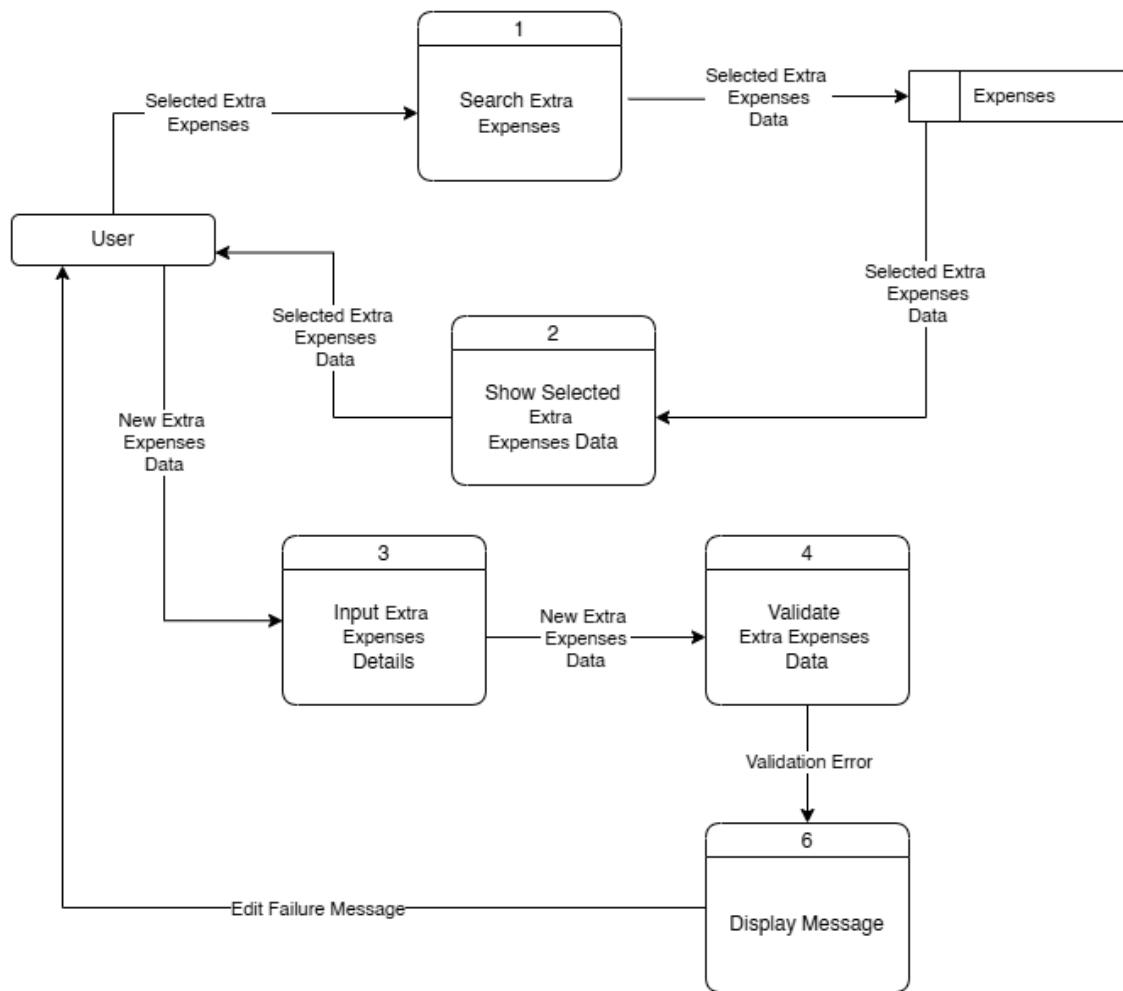
Scenario 1 – Successful Edit Extra Expenses



Scenario 1 – Brief Explanation for Successful Edit Extra Expenses

When a user selects Extra Expenses, the system first retrieves the selected Extra Expenses data from the Expenses database (Process 1). The system then displays the Extra Expenses details to the user (Process 2). The user can input new Extra Expenses details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated Extra Expenses data (Process 5). Upon successful saving, the system displays a success message to the user (Process 6), confirming that Extra Expenses data has been successfully updated.

Scenario 2 – Unsuccessful Edit Extra Expenses

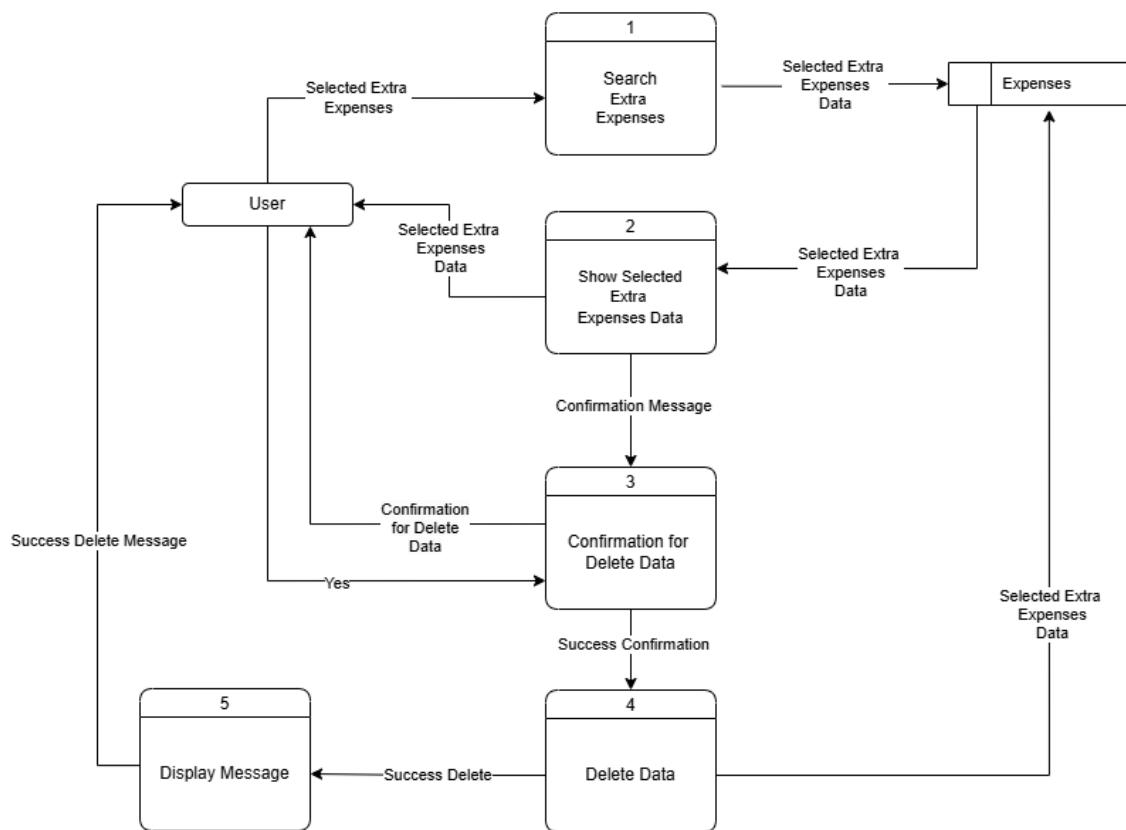


Scenario 2 – Brief Explanation for Unsuccessful Edit Job Card

When a user selects Extra Expenses, the system retrieves the selected Extra Expenses data from the Expenses database (Process 1). The system then displays the retrieved Extra Expenses details to the user (Process 2). The user can input new Extra Expenses details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.5.8 Delete Extra Expenses - Data Flow Diagram

Scenario 1 – Successful Delete Extra Expenses

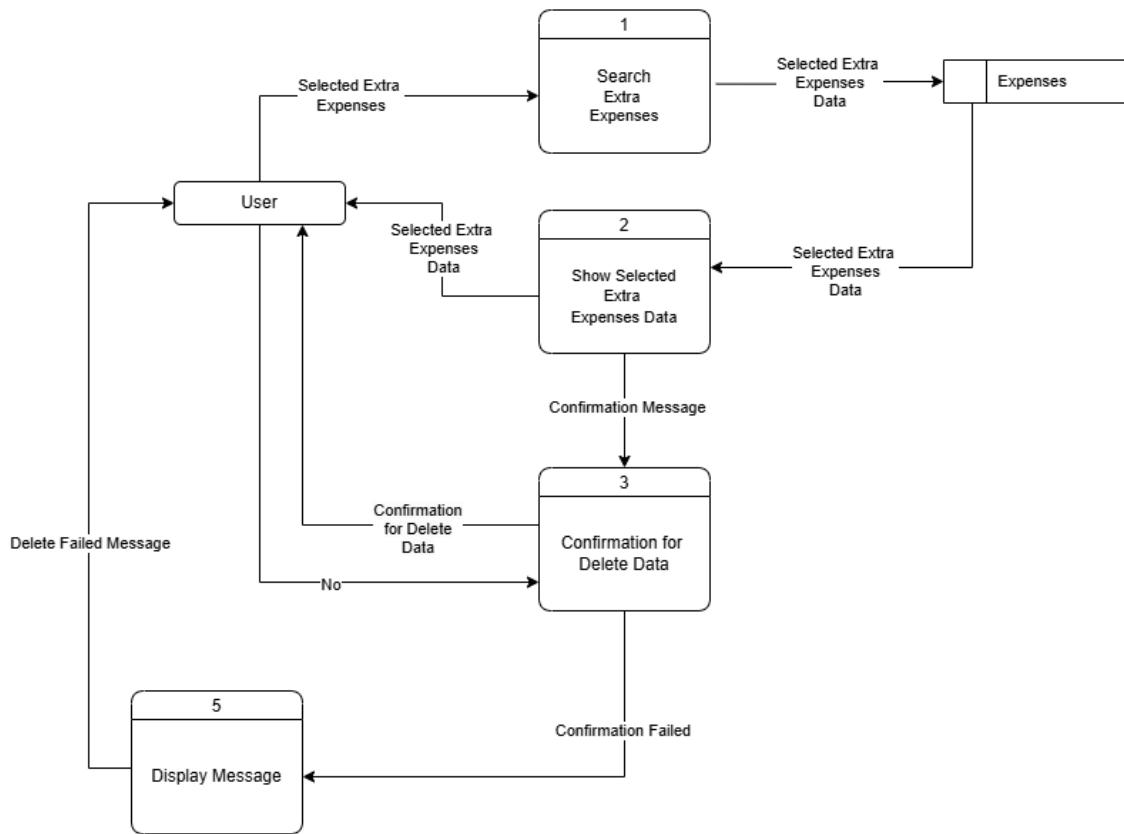


Scenario 1 – Brief Explanation for Successful Delete Extra Expenses

When a user selects Extra Expenses, the system retrieves the selected Extra Expenses data from the Expenses database (Process 1). The system then displays the retrieved Extra Expenses details to the user (Process 2). If the user decides to delete the Extra Expenses, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected Extra Expenses data (Process 4). A success message is then displayed to the user (Process 5).

- 4). Once the data is successfully deleted, the system displays a success message to the user (Process 5), confirming that the Extra Expenses has been deleted.

Scenario 2 – Unsuccessful Delete Extra Expenses



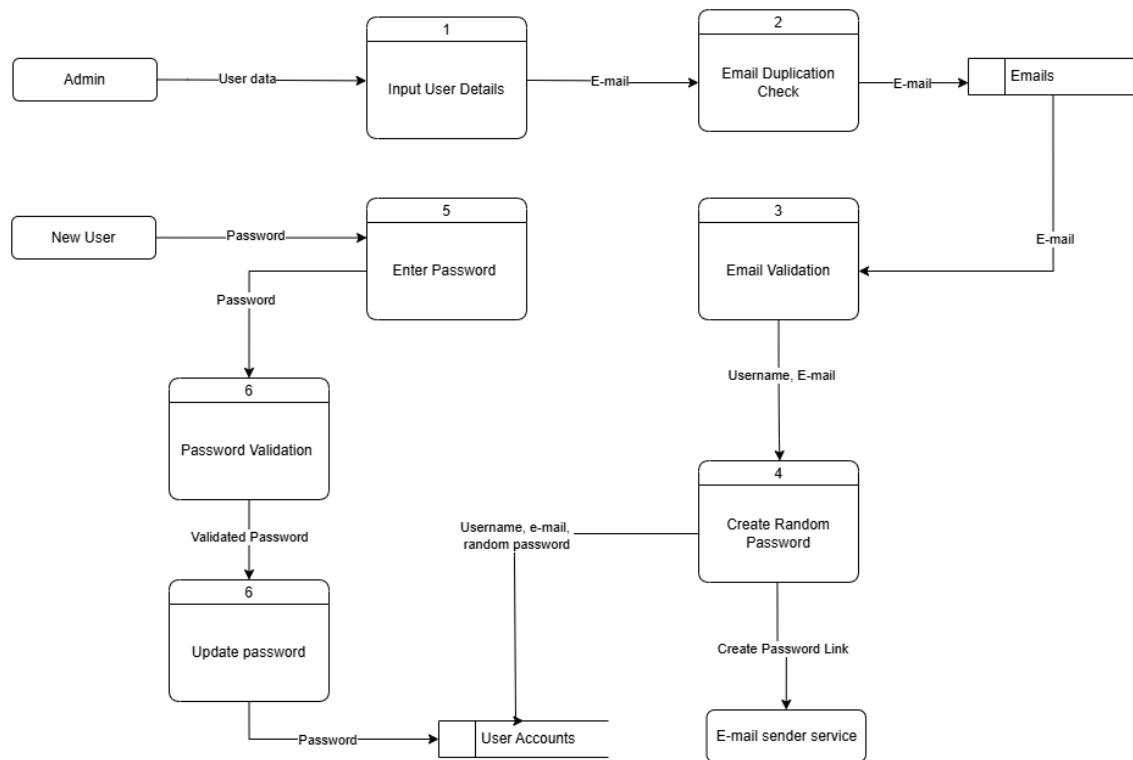
Scenario 2 – Brief Explanation for Unsuccessful Delete Extra Expenses

When a user selects Extra Expenses, the system retrieves the selected Extra Expenses data from the Expenses database (Process 1). The system then displays the retrieved Extra Expenses details to the user (Process 2). If the user attempts to delete Extra Expenses, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the Extra Expenses data was not deleted.

2.1.6 User Management - Data Flow Diagram

2.1.6.1 Add New User - Data Flow Diagram

Scenario 1 – Successful Add New User

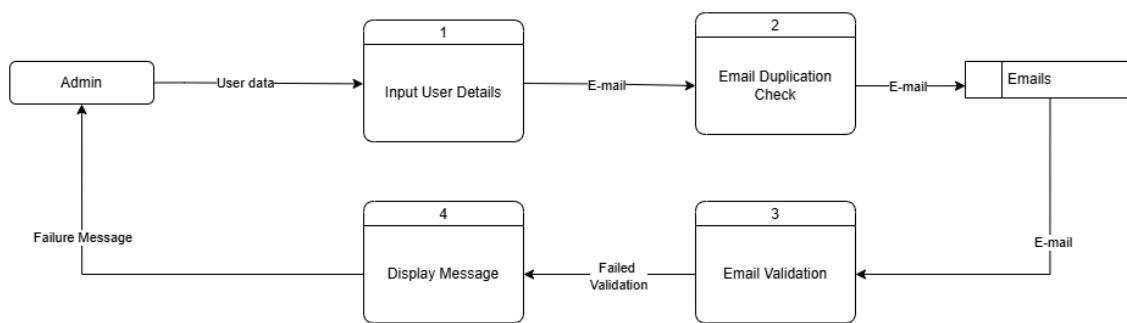


Scenario 1 – Brief Explanation for Successful Add New User

An admin begins by inputting new user details (Process 1). The system performs an email duplication check (Process 2) to ensure the provided email is unique within the emails database. If the email is unique, the system validates the email format and data (Process 3). Upon successful email validation, a random password is generated for the new user (Process 4), and a password creation link is sent to the user through the email sender service.

The new user need to open the Link and then, is prompted to enter a password (Process 5). The system validates the entered password (Process 6) for compliance with password policies. If the password is valid, the system updates the password in the user accounts database (Process 6), completing the new user account setup.

Scenario 2 – Failed Add New User

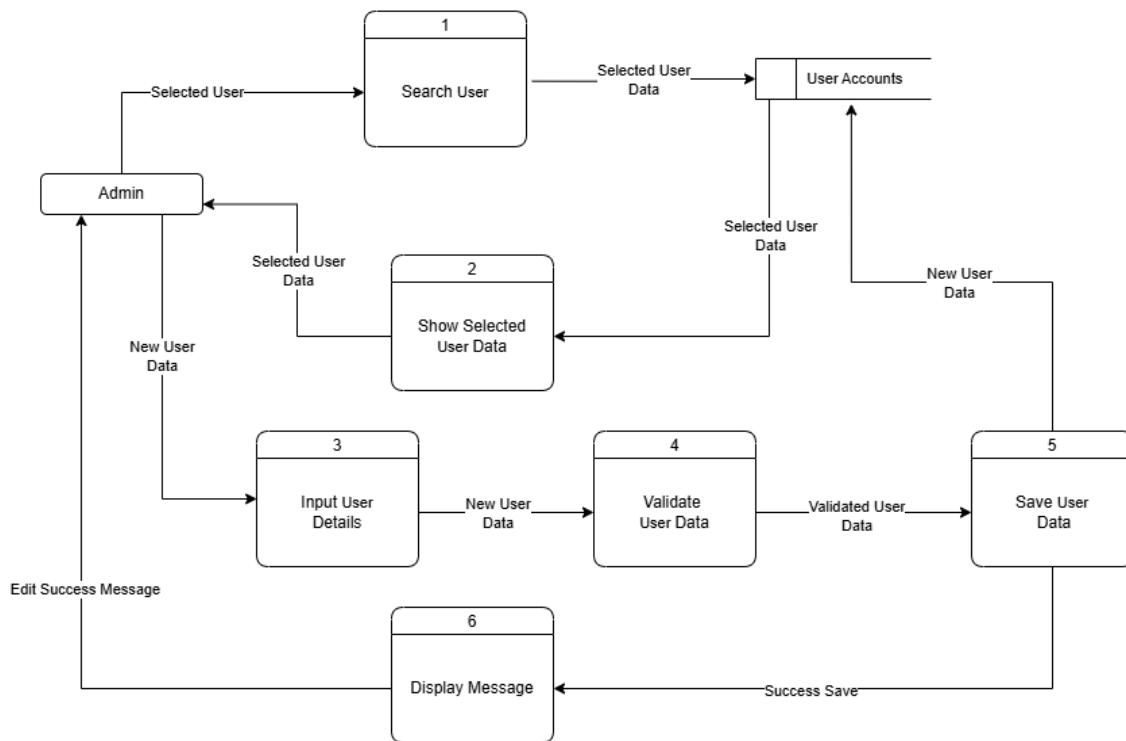


Scenario 2 – Brief Explanation for Failed Add New User

An admin begins by inputting new user details (Process 1). The system performs an email duplication check (Process 2) by verifying the email against the emails database. If the email already exists or the format is invalid, the system performs email validation (Process 3), which fails. The system then displays a failure message (Process 4) to the admin, informing them of the issue.

2.1.6.2 Edit User - Data Flow Diagram

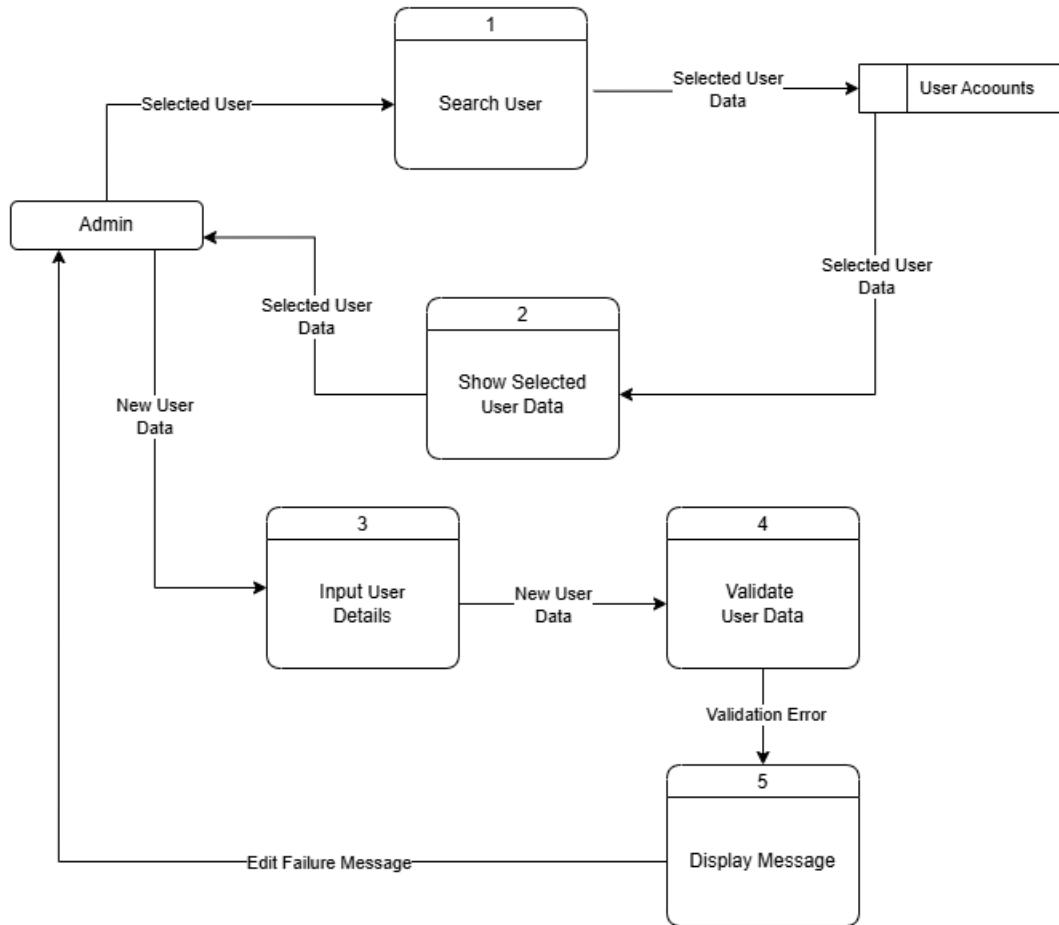
Scenario 1 – Successful Edit User



Scenario 1 – Brief Explanation for Successful Edit User

When the Admin selects a User, the system first validates the User data (Process 1) by retrieving information from the User Accounts database. If the data is valid, the system proceeds to display the User details (Process 2). The Admin can then edit the User data and submit the new details. The system update User data (Process 3) before attempting to save it (Process 4). If the save operation is successful, the system show a success message (Process 5) and displays it to the Admin, confirming that the car data has been successfully updated.

Scenario 2 – Unsuccessful Edit User

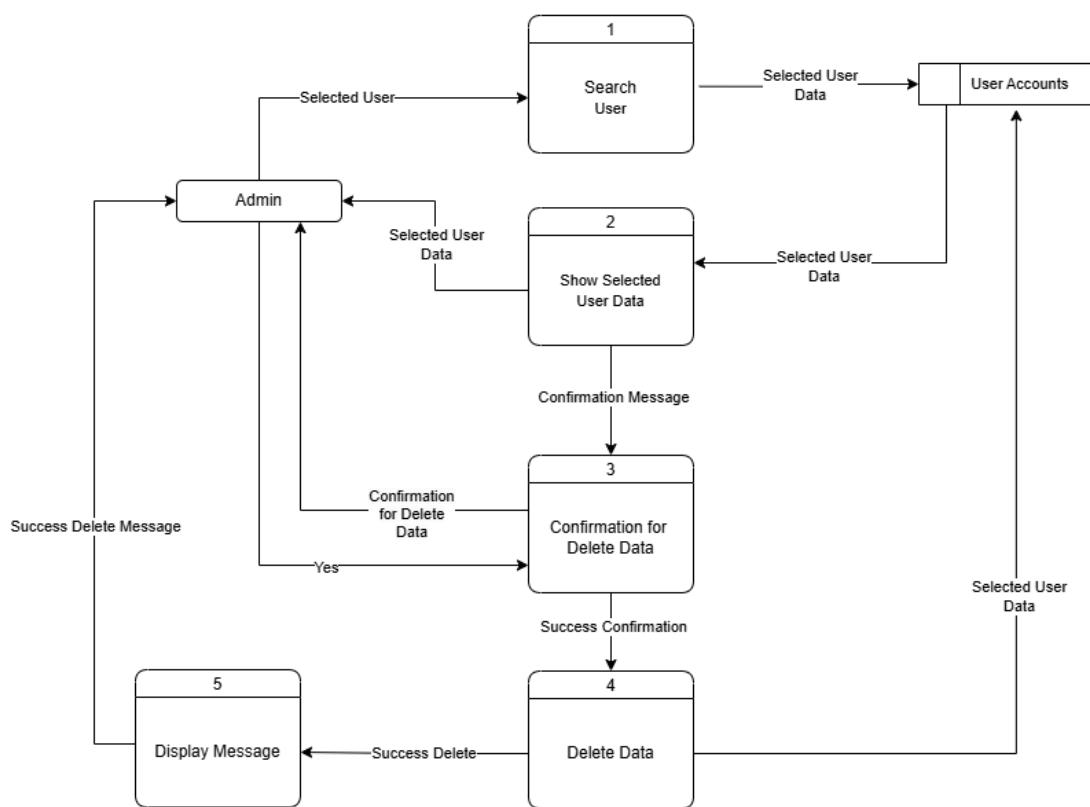


Scenario 2 – Brief Explanation for Unsuccessful Edit User

When Admin selects a User, the system first validates the User data (Process 1) by retrieving information from the User Accounts database. If the data is valid, the system proceeds to display the User details (Process 2). The Admin can then edit the User data and submit the new details. The system update User data (Process 3) before attempting to save it (Process 4). If the save operation fails, the system generates a failure message (Process 5) and displays it to the Admin, indicating that the User data update was unsuccessful.

2.1.6.3 Delete User - Data Flow Diagram

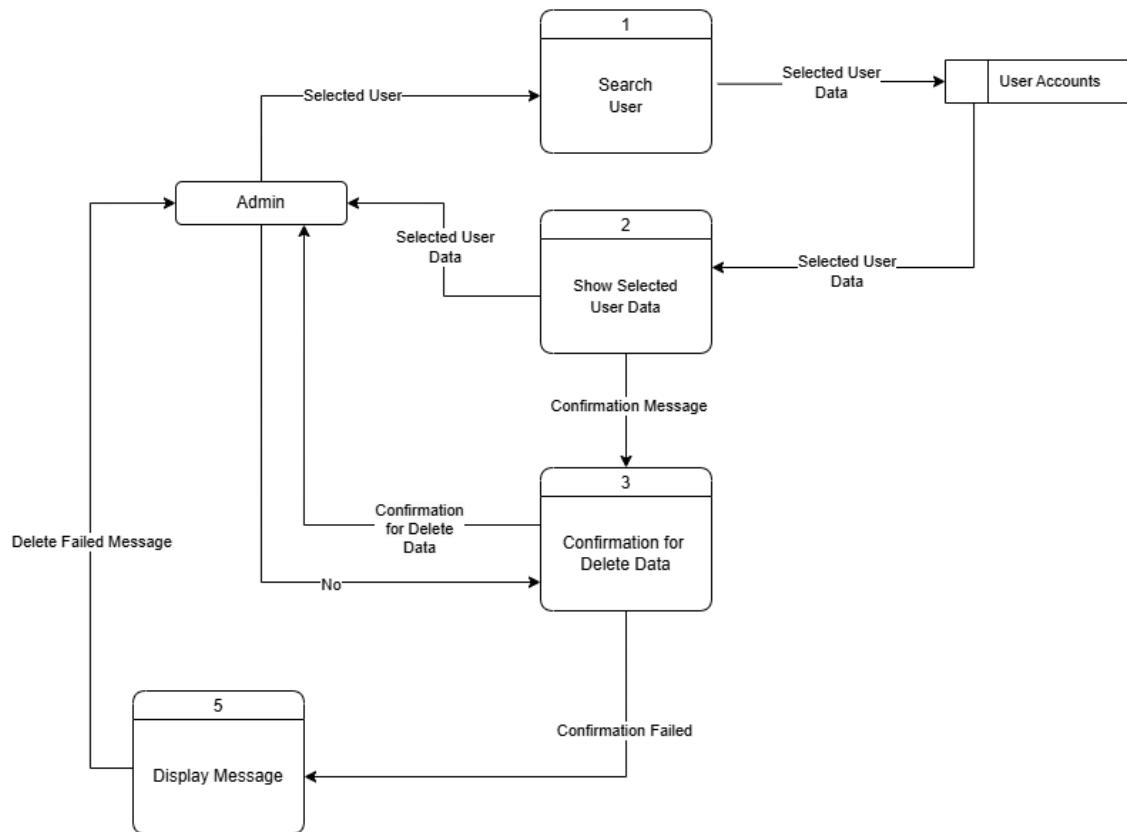
Scenario 1 – Successful User Deletion



Scenario 1 – Brief Explanation for Successful User Deletion

When Admin selects a User for delete, the system first validates the User details (Process 1) by retrieving information from the User Accounts database. If the data is valid, the system proceeds with the deleted request (Process 2). The system asks for confirmation (Process 3). If the Admin confirms, the system successfully deletes the User data and generates a success delete message (Process 4), which is then displayed to the Admin, confirming that the User data has been successfully removed.

Scenario 2 – Failed User Deletion



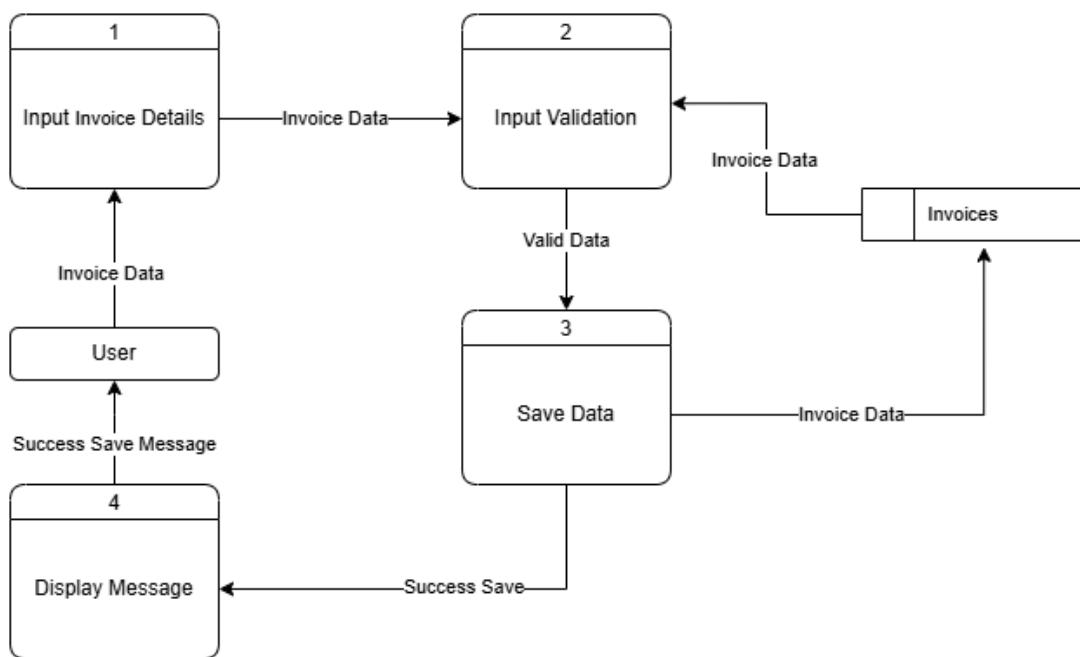
Scenario 2 – Brief Explanation for Failed User Deletion

When Admin selects a User for delete, the system first validates the User details (Process 1) by retrieving information from the User Accounts database. If the data is valid, the system proceeds with the deleted request (Process 2). The system asks for confirmation (Process 3). If the user declines or the delete process fails, the system generates a delete failure message (Process 4) and displays it to the Admin, indicating that the User data could not be deleted.

2.1.7 Invoice Management - Data Flow Diagram

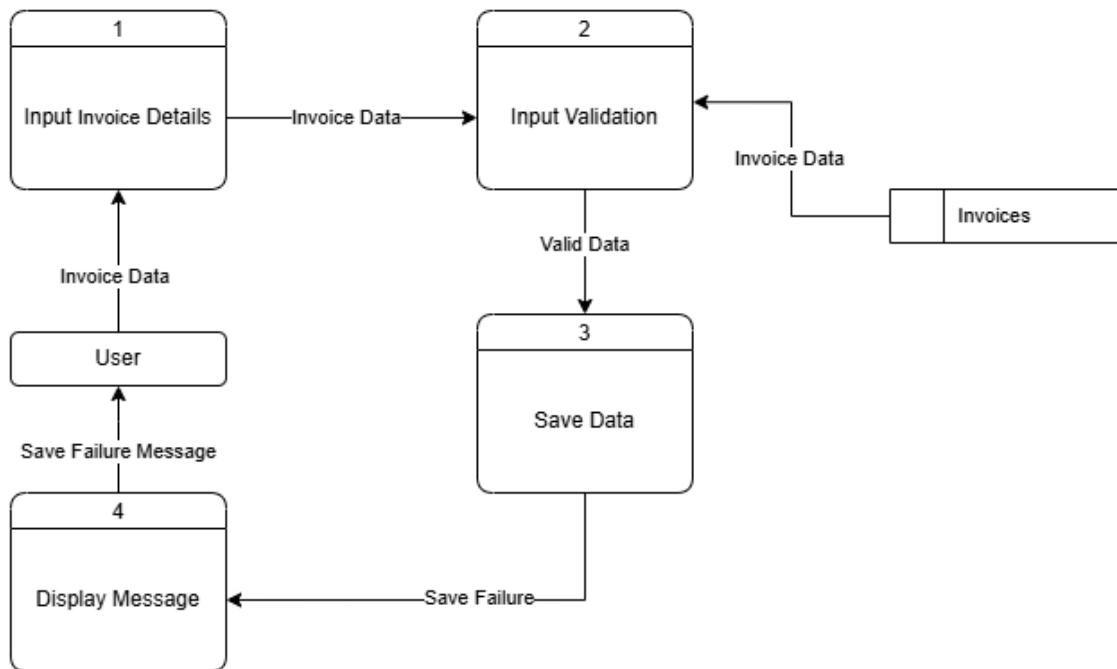
2.1.7.1 Add New Invoice - Data Flow Diagram

Scenario 1 – Successful Add New Invoice



Scenario 1 – Brief Explanation for Successful Add New Invoice

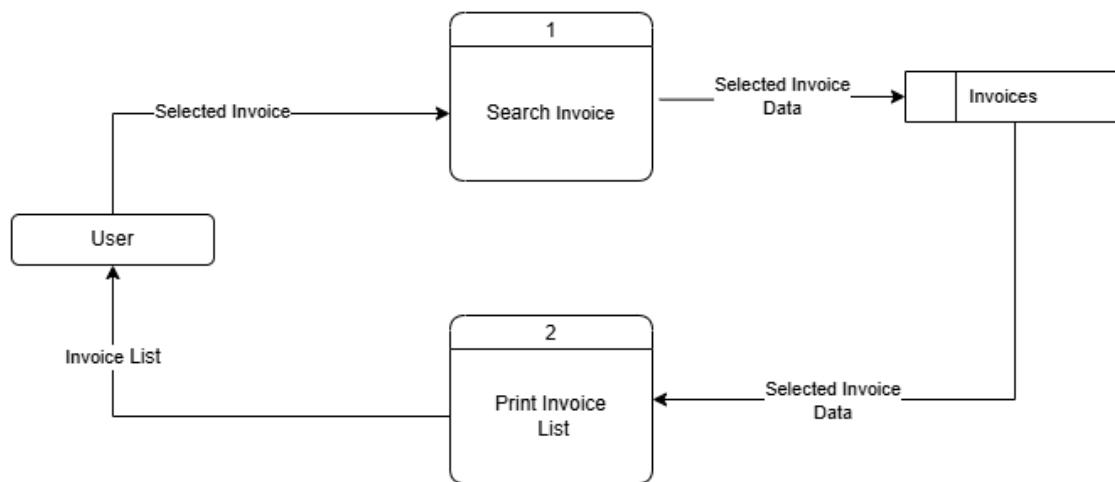
When a user wants to input a new invoice, they provide the necessary data. The system first processes the input (Process 1) and sends the invoice data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a success message (Process 4) and displays it to the user, confirming that invoice details have been successfully recorded.

Scenario 2 – Unsuccessful Add New Invoice**Scenario 2 – Brief Explanation for Unsuccessful Add New Invoice**

When a user inputs new Invoice, the system first processes the input (Process 1) and sends the Invoice data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Invoice could not be saved successfully.

2.1.7.2 Print Invoice List - Data Flow Diagram

Scenario 1 – Successful Print Invoice List

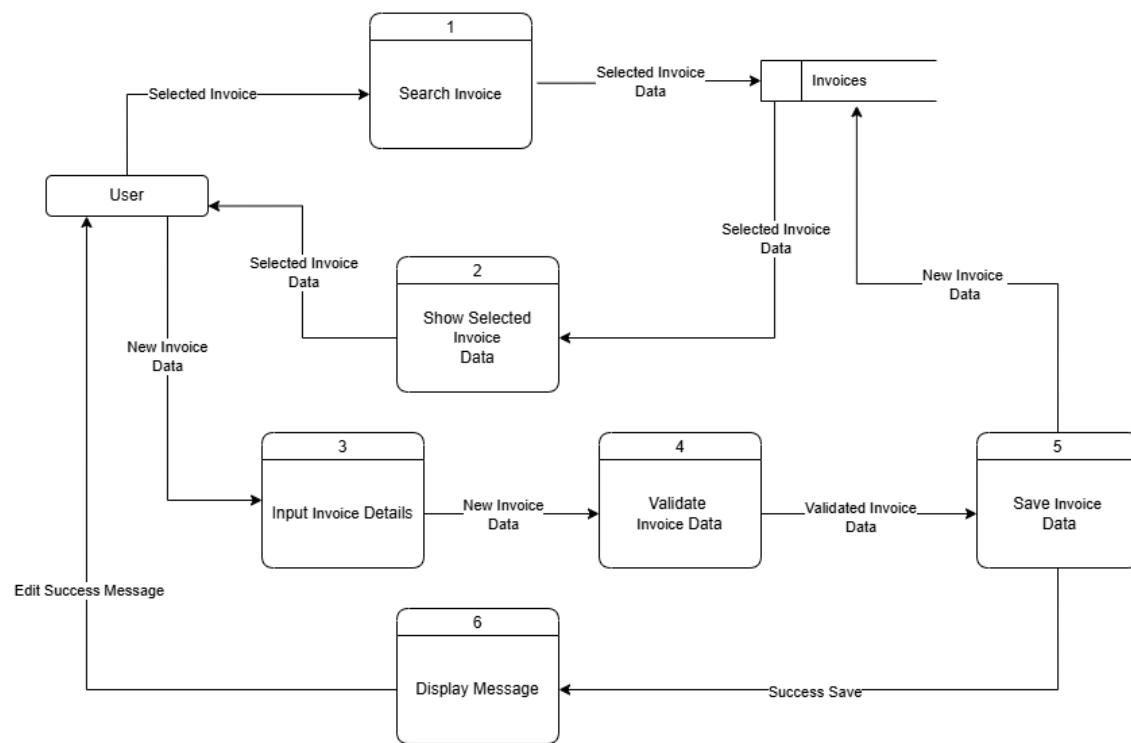


Scenario 1 – Brief Explanation for Successful Print Invoice List

When a user selects to print Invoice List, the system first search for the Invoice data (Process 1) in the Invoices database. Then, the system proceeds to print the Invoice List details (Process 2) retrieved from database.

2.1.7.3 Edit Invoice - Data Flow Diagram

Scenario 1 – Successful Edit Invoice

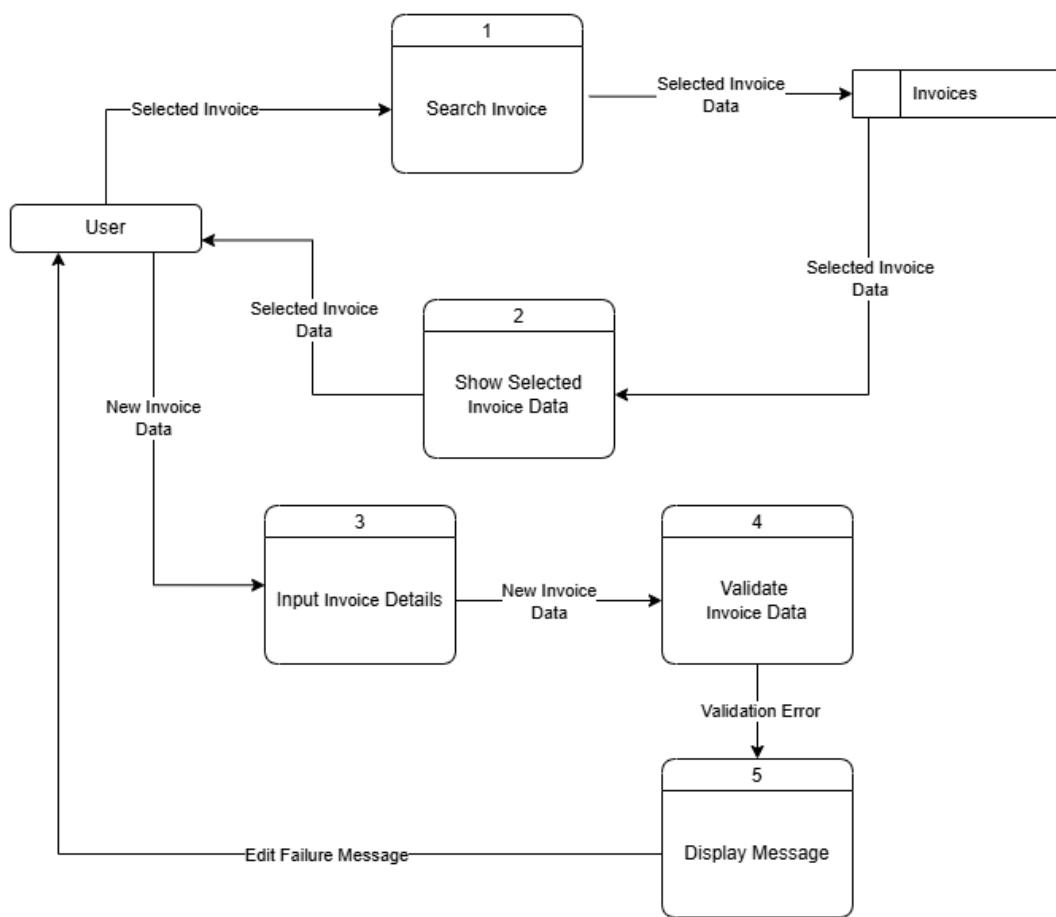


Scenario 1 – Brief Explanation for Successful Edit Invoice

When a user selects an Invoice, the system first retrieves the selected Invoice data from the Invoices database (Process 1). The system then displays the retrieved Invoice details to the user (Process 2). The user can input new Invoice details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated Invoice data (Process 5). Upon successful saving, the system displays a success

message to the user (Process 6), confirming that the Invoice data has been successfully updated.

Scenario 2 – Unsuccessful Edit Invoice



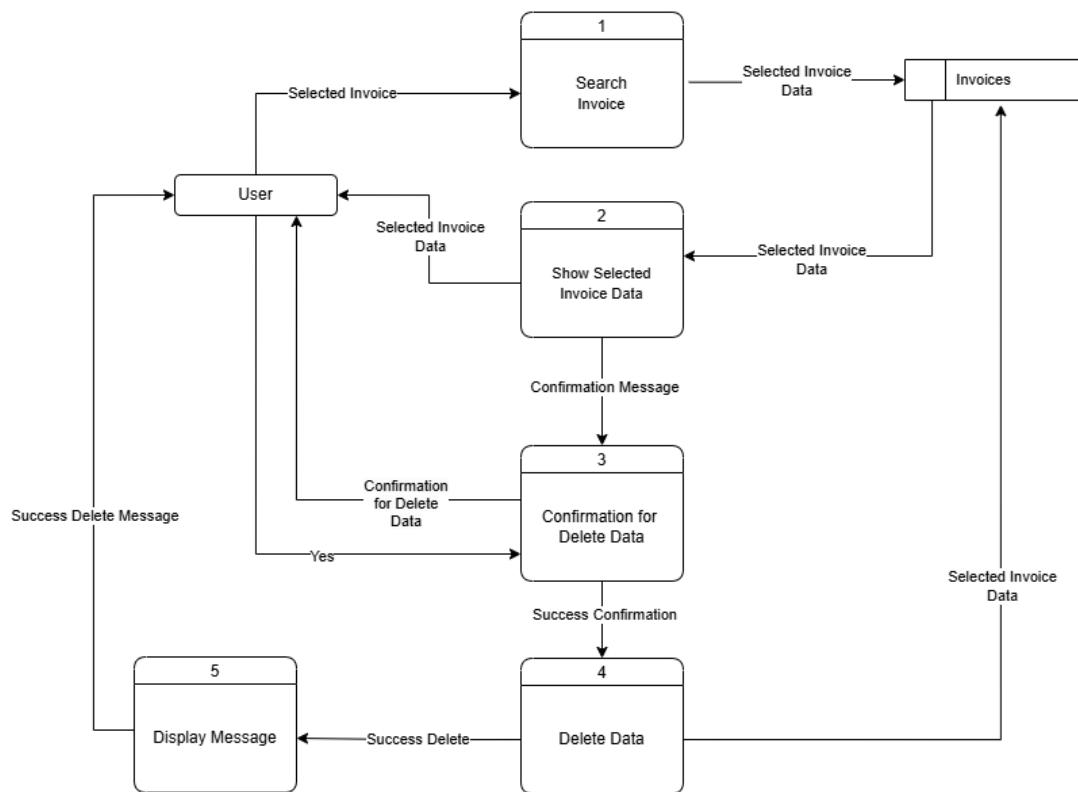
Scenario 2 – Brief Explanation for Unsuccessful Edit Invoice

When a user selects a Invoice, the system retrieves the selected Invoice data from Invoices database (Process 1). The system then displays the retrieved Invoice details to the user

(Process 2). The user can input new Invoice details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.7.4 Delete Invoice - Data Flow Diagram

Scenario 1 – Successful Delete Invoice

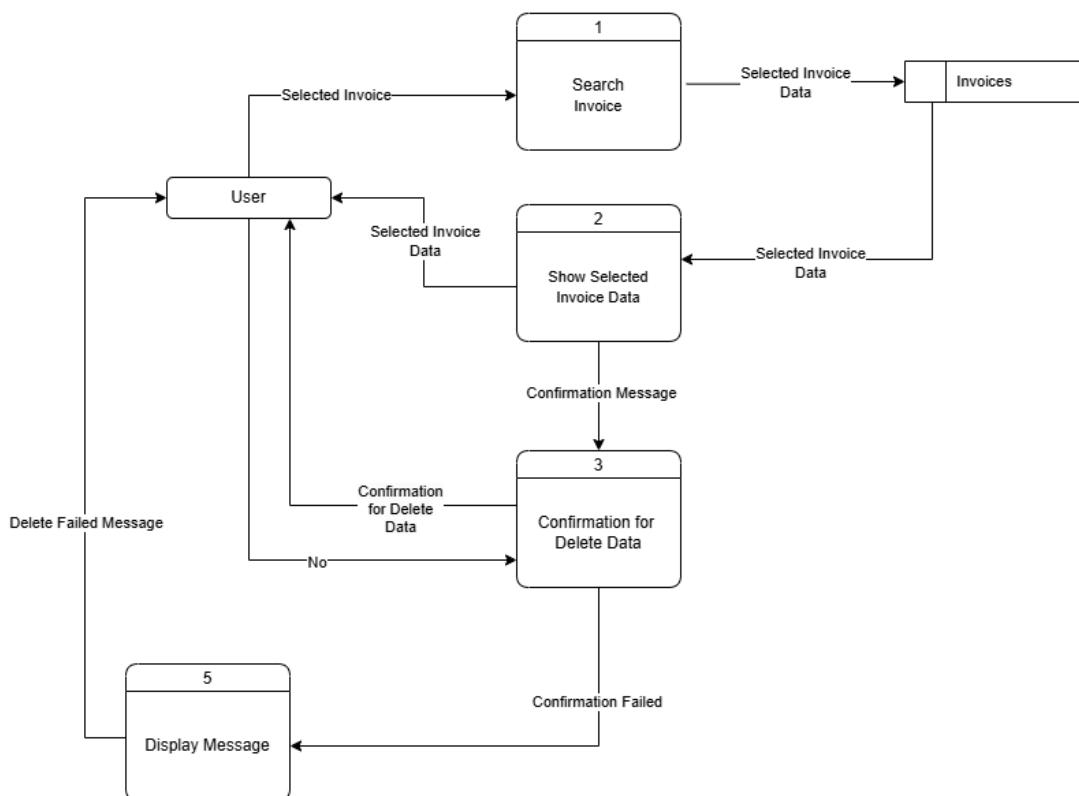


Scenario 1 – Brief Explanation for Successful Delete Invoice

When a user selects a Invoice, the system retrieves the selected Invoice data from the Invoices database (Process 1). The system then displays the retrieved Invoice details to the user (Process 2). If the user decides to delete the Invoice, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected Invoice data (Process 4). Once the data is successfully

deleted, the system displays a success message to the user (Process 5), confirming that the Invoice has been deleted.

Scenario 2 – Unsuccessful Delete Invoice



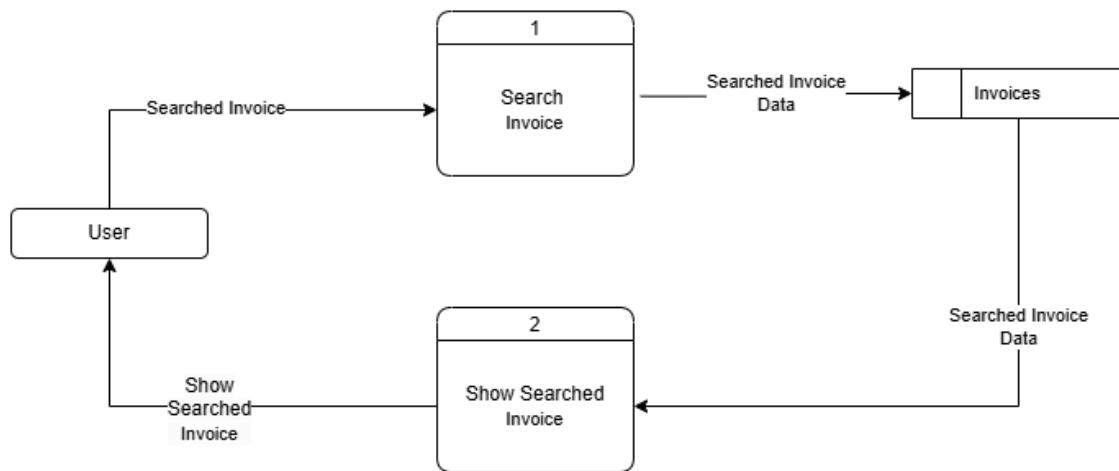
Scenario 2 – Brief Explanation for Unsuccessful Delete Invoice

When a user selects an Invoice, the system retrieves the selected Invoice data from Invoices database (Process 1). The system then displays the retrieved Invoice details to the user (Process 2). If the user attempts to delete the Invoice, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the

confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the Invoice data was not deleted.

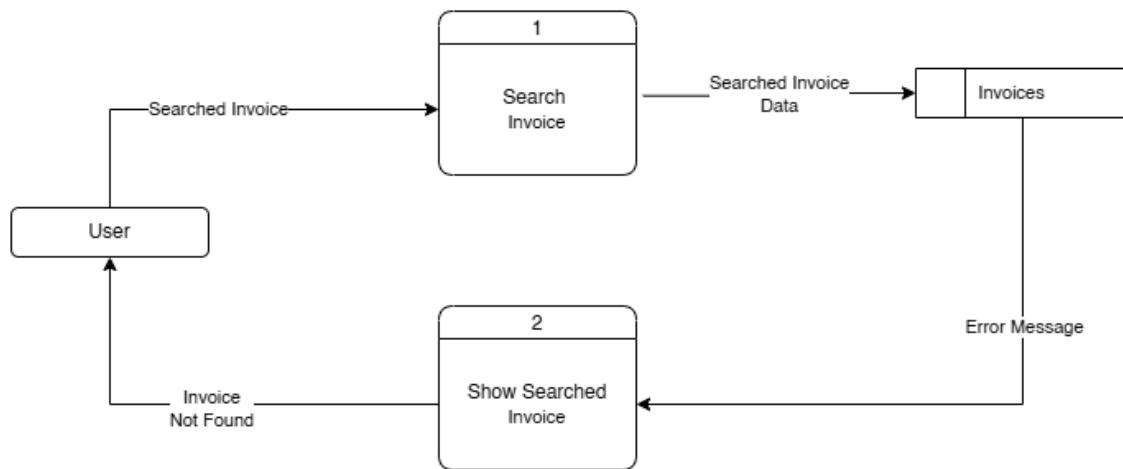
2.1.7.5 Search Invoice - Data Flow Diagram

Scenario 1 – Successful Search Invoice



Scenario 1 – Brief Explanation for Successful Search Invoice

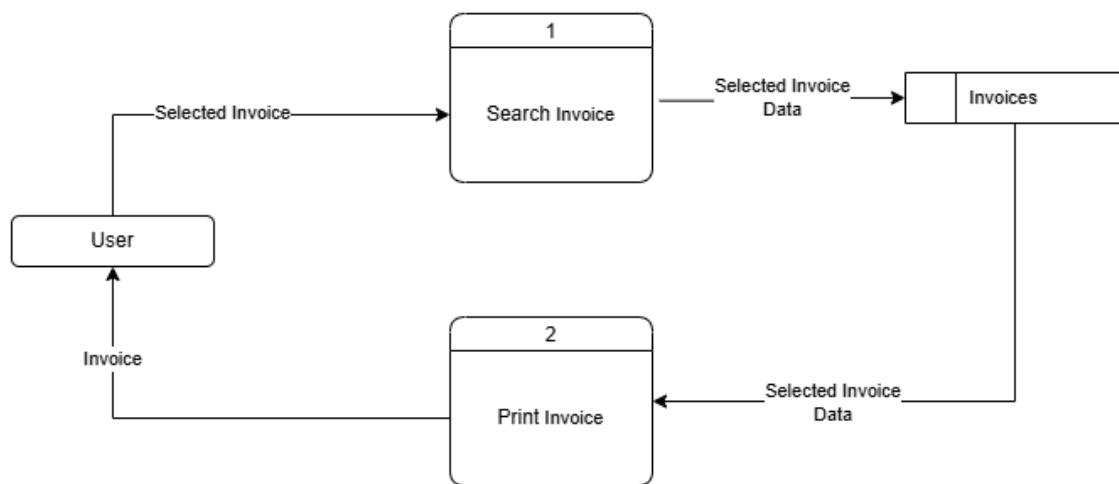
The user initiates a search for an Invoice by providing search criteria (Process 1). The system retrieves the relevant Invoice data from the Invoices database. The system then displays the searched Invoice data to the user (Process 2), enabling the user to view the Invoice details.

Scenario 2 – Unsuccessful Search Invoice**Scenario 2 – Brief Explanation for Unsuccessful Search Invoice**

The user initiates a search for an Invoice by providing search criteria (Process 1). The system attempts to retrieve the relevant Invoice data from the Invoices database. If no matching Invoice is found, the system generates an error message and sends it back to the user. The system then displays an empty view to the user (Process 2), informing them of the unsuccessful search.

2.1.7.6 Print Invoice - Data Flow Diagram

Scenario 1 – Successful Print Invoice



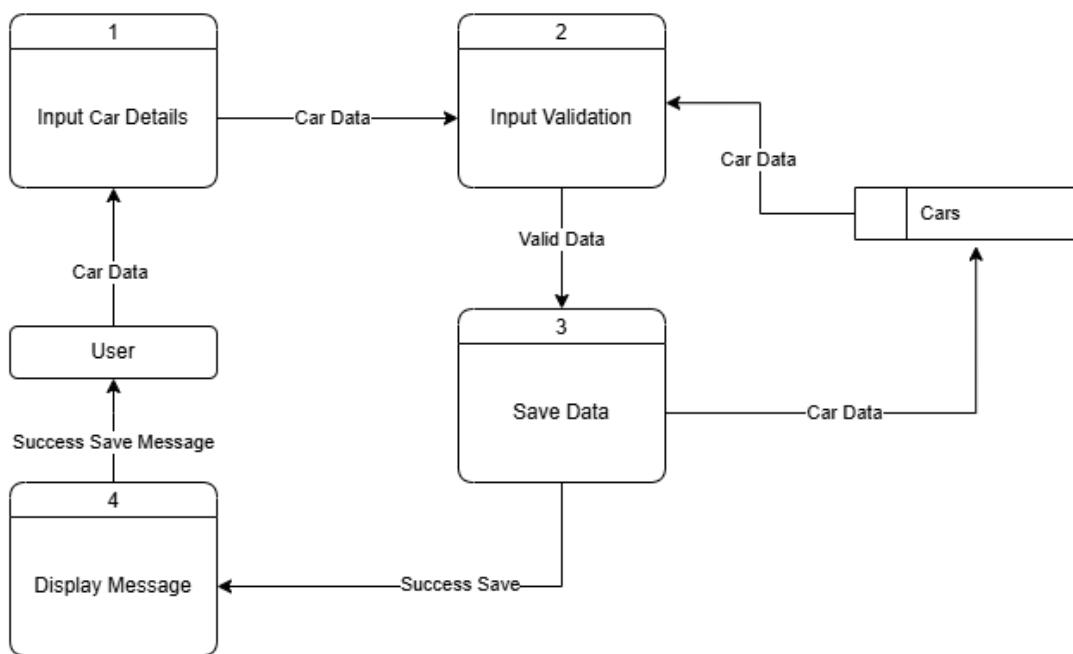
Scenario 1 – Brief Explanation for Successful Search Invoice

When a user selects to print Invoice, the system first search for the Invoice data (Process 1) in the Invoices database. Then, the system proceeds to print the Invoice details (Process 2) retrieved from database.

2.1.8 Cars Management - Data Flow Diagram

2.1.8.1 Add Car - Data Flow Diagram

Scenario 1 – Successful Add Car

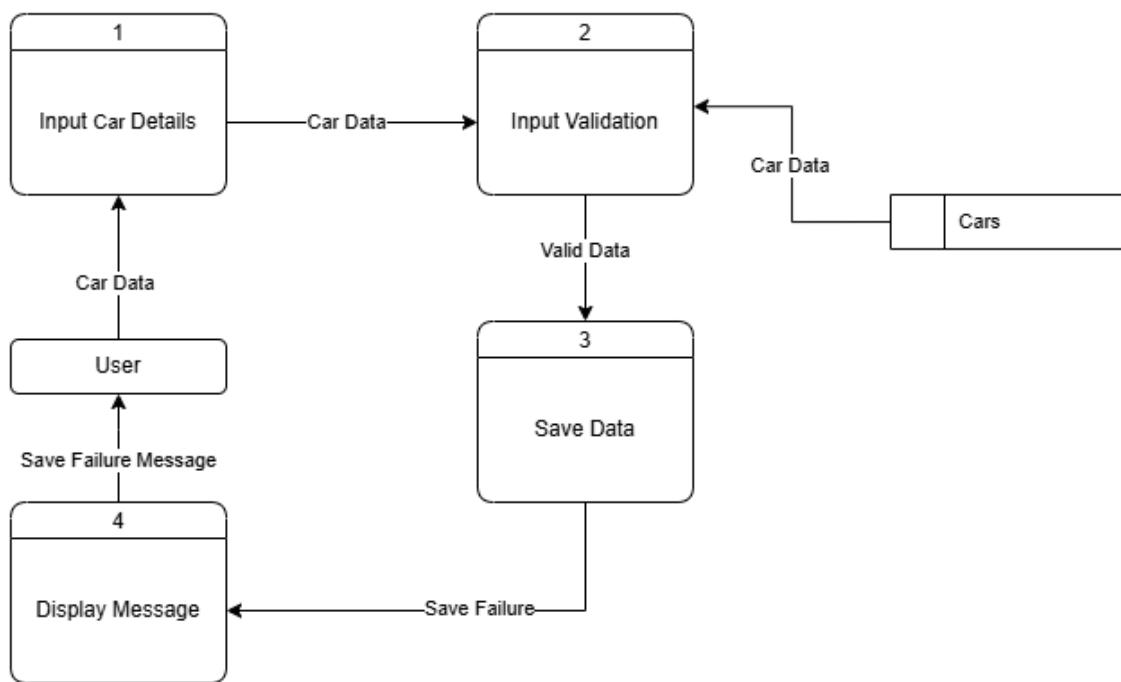


Scenario 1 – Brief Explanation for Successful Add Car

When a user wants to input a new Car, they provide the necessary data. The system first processes the input (Process 1) and sends the Car data for validation (Process 2). If the data is valid, it proceeds to be saved in the system (Process 3). The system generates a

success message (Process 4) and displays it to the user, confirming that Car details have been successfully recorded.

Scenario 2 – Unsuccessful Add Car

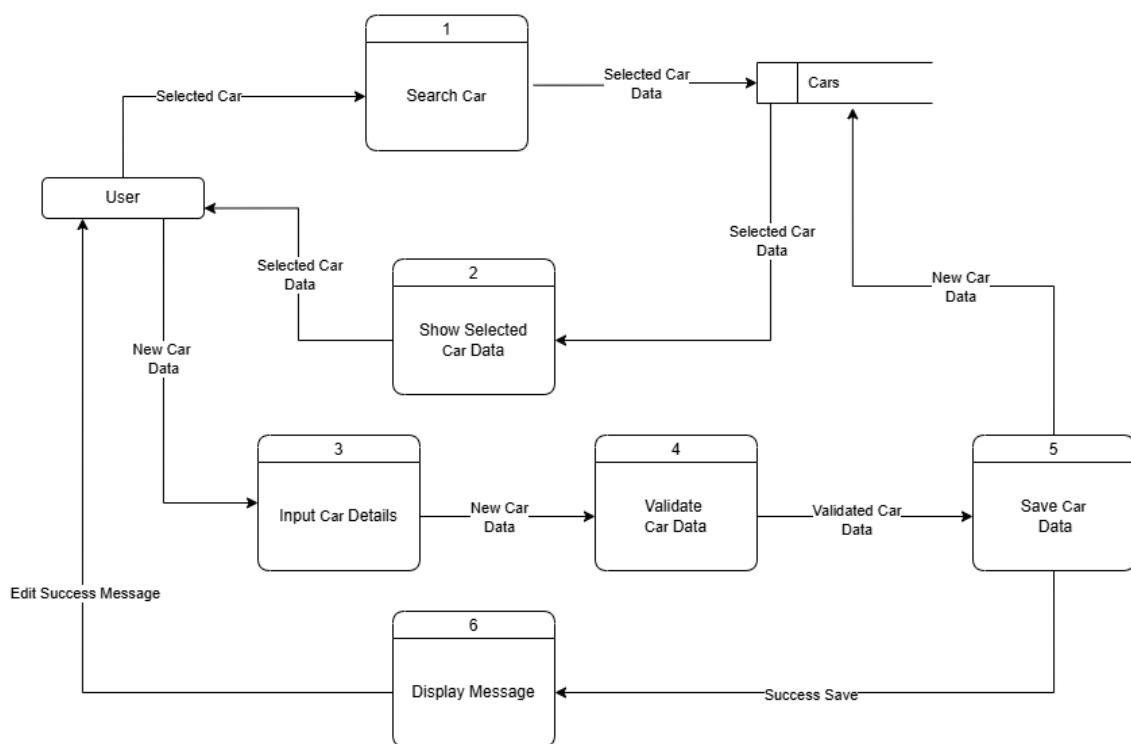


Scenario 2 – Brief Explanation for Unsuccessful Add Car

When a user inputs new Car, the system first processes the input (Process 1) and sends the Car data for validation (Process 2). If the data is valid, the system attempts to save it (Process 3). However, if the save operation fails, the system generates a failure message (Process 4) and displays it to the user, indicating that Car could not be saved successfully.

2.1.8.2 Edit Car - Data Flow Diagram

Scenario 1 – Successful Edit Car

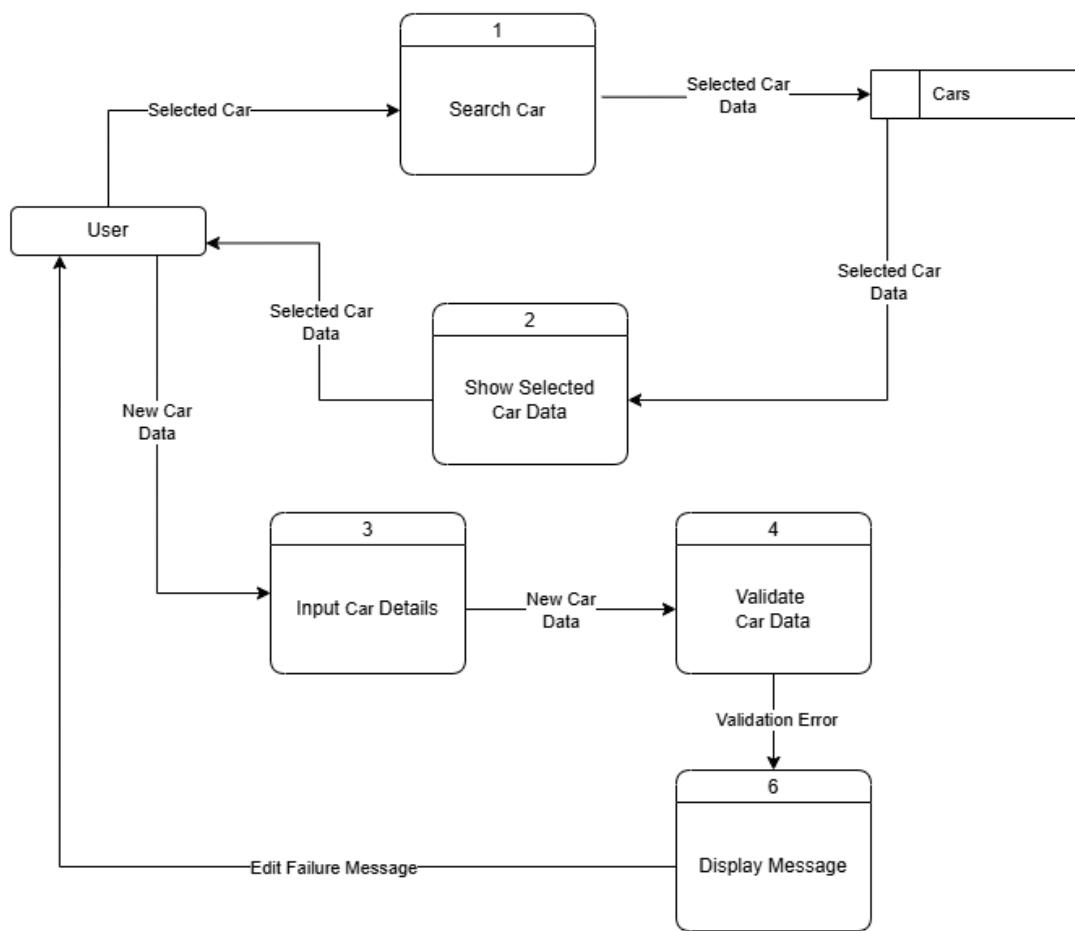


Scenario 1 – Brief Explanation for Successful Edit Car

When a user selects a Car, the system first retrieves the selected Car data from the Cars database (Process 1). The system then displays the retrieved Car details to the user (Process 2). The user can input new Car details (Process 3), which are then validated by the system (Process 4). If the validation is successful, the system saves the updated Car data

(Process 5). Upon successful saving, the system displays a success message to the user (Process 6), confirming that the Car data has been successfully updated.

Scenario 2 – Unsuccessful Edit Car

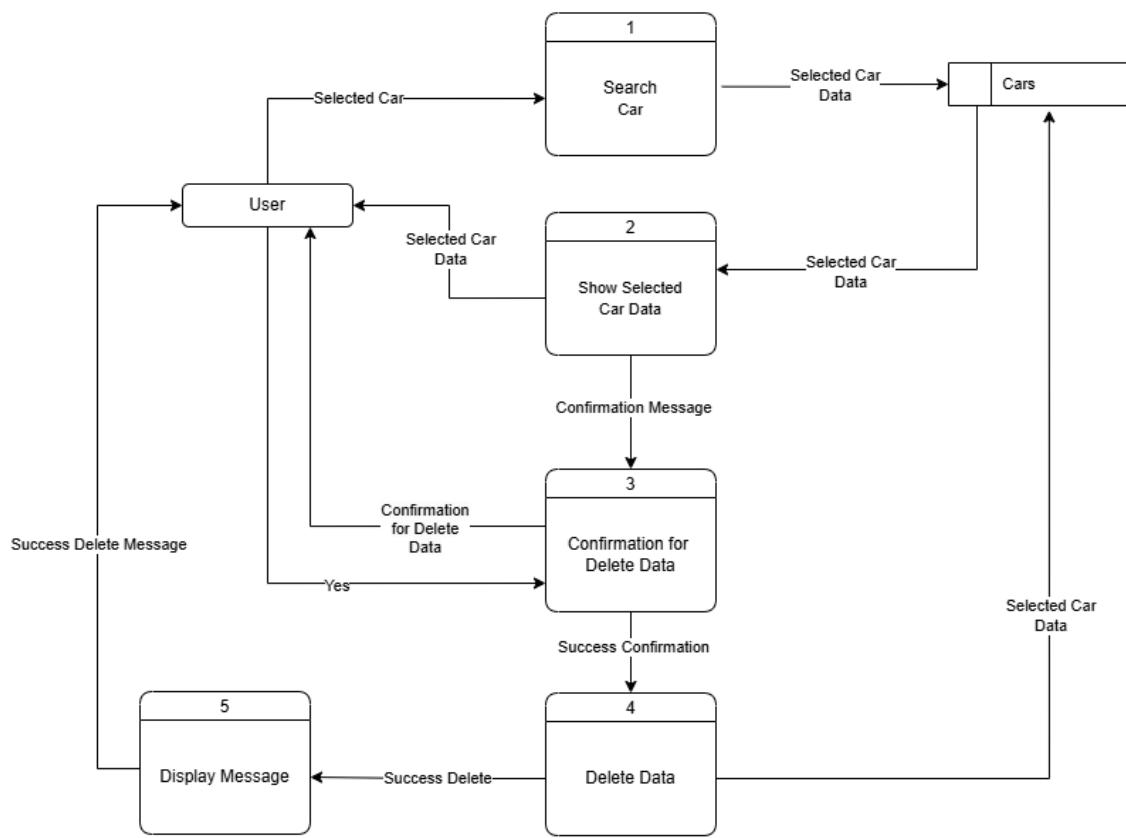


Scenario 2 – Brief Explanation for Unsuccessful Edit Car

When a user selects a Car, the system retrieves the selected Car data from the Cars database (Process 1). The system then displays the retrieved Car details to the user (Process 2). The user can input new Car details (Process 3), which are then validated by the system (Process 4). If the validation fails, the system generates a validation error and displays a failure message to the user (Process 5), informing them of the issue.

2.1.8.3 Delete Car - Data Flow Diagram

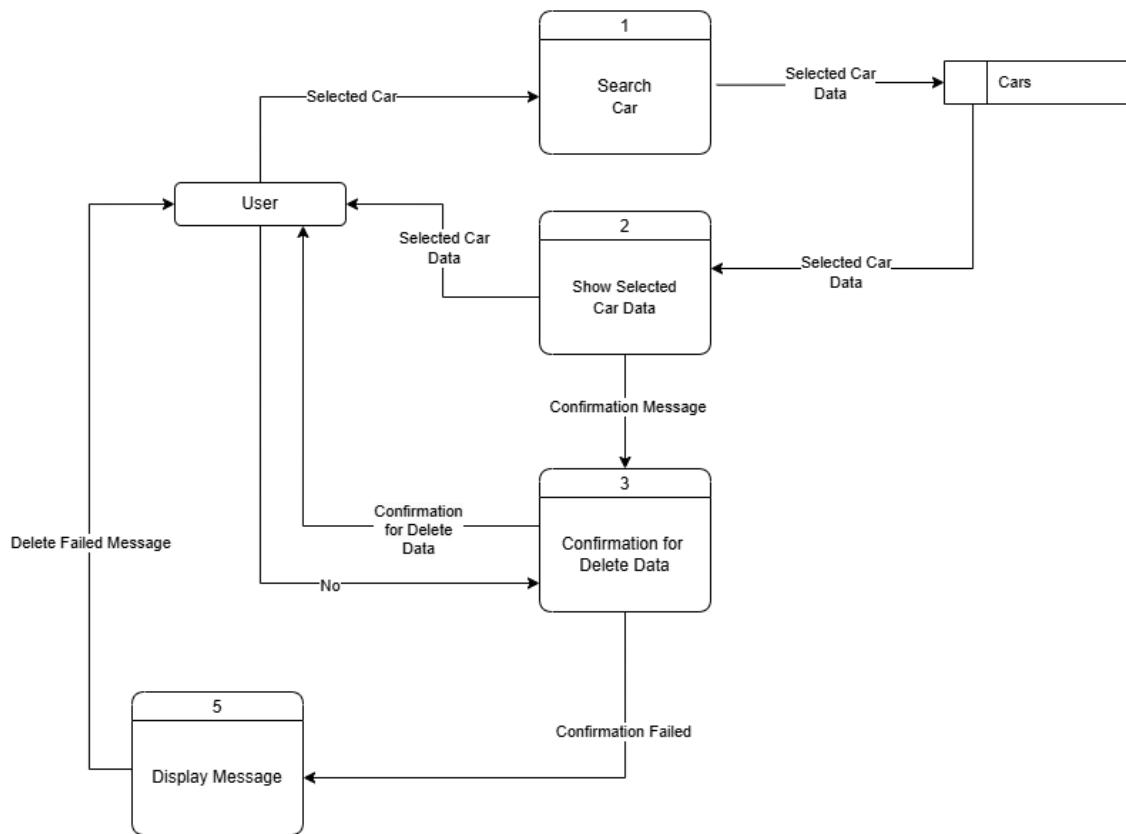
Scenario 1 – Successful Delete Car



Scenario 1 – Brief Explanation for Successful Delete Car

When a user selects a Car, the system retrieves the selected Car data from the job cards database (Process 1). The system then displays the retrieved Car details to the user (Process 2). If the user decides to delete the Car, the system prompts for confirmation to delete the data (Process 3). Upon receiving confirmation from the user, the system deletes the selected Car data (Process 4). Once the data is successfully deleted, the system displays a success message to the user (Process 5), confirming that the Car has been deleted.

Scenario 2 – Unsuccessful Delete Car

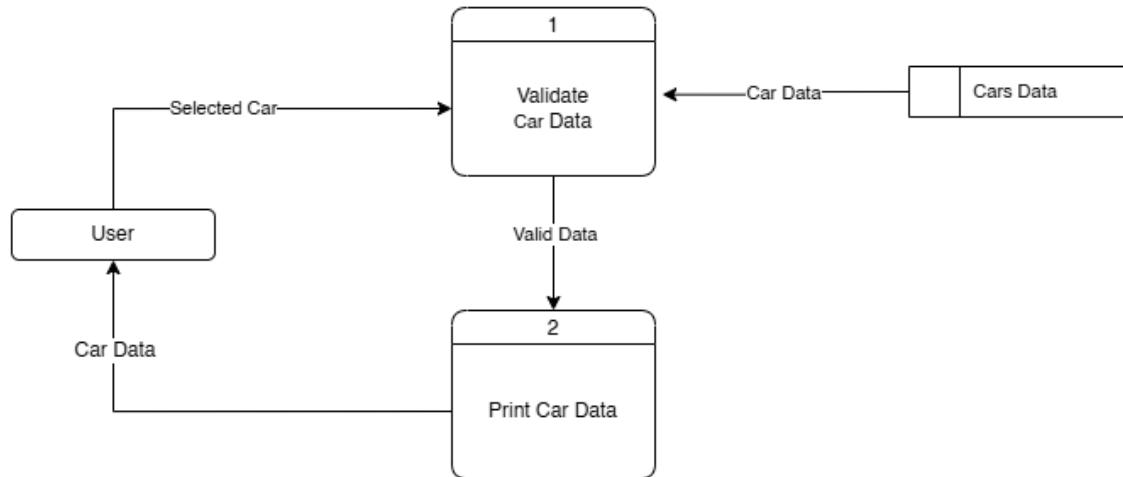


Scenario 2 – Brief Explanation for Unsuccessful Delete Car

When a user selects a Car, the system retrieves the selected Car data from the Cars database (Process 1). The system then displays the retrieved Car details to the user (Process 2). If the user attempts to delete the Car, the system prompts for confirmation to delete the data (Process 3). If the user does not confirm the deletion or the confirmation fails, the system generates a failure message (Process 5) and displays it to the user, indicating that the Car data was not deleted.

2.1.8.4 Print Car - Data Flow Diagram

Scenario 1 – Successful Print Car

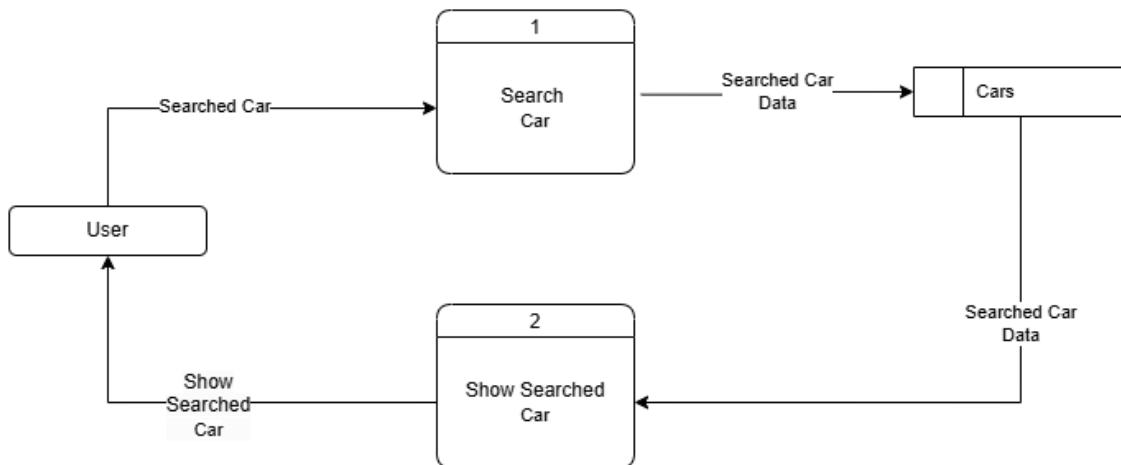


Scenario 1 – Brief Explanation for Successful Print Car

When a user selects to print Car, the system first search for the Car data (Process 1) in the Cars database. Then, the system proceeds to print the Car details (Process 2) retrieved from database.

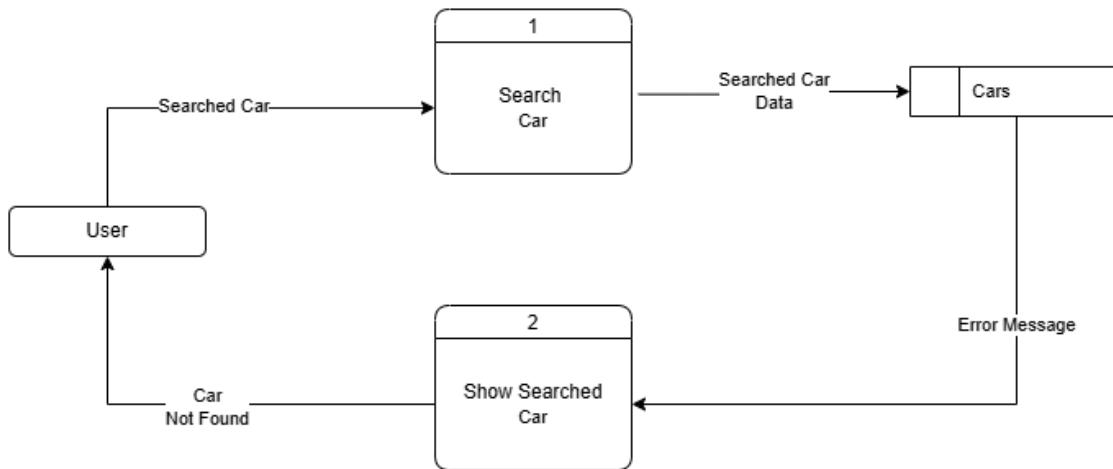
2.1.8.5 Search Car - Data Flow Diagram

Scenario 1 – Successful Search Car



Scenario 1 – Brief Explanation for Successful Search Car

The user initiates a search for a Car by providing search criteria (Process 1). The system retrieves the relevant Car data from the Cars database. The system then displays the searched Car data to the user (Process 2), enabling the user to view the Car details.

Scenario 2 – Unsuccessful Search Car**Scenario 2 – Brief Explanation for Unsuccessful Search Car**

The user initiates a search for a Car by providing search criteria (Process 1). The system attempts to retrieve the relevant Car data from the Cars database. If no matching Car is found, the system generates an error message and sends it back to the user. The system then displays an empty view to the user (Process 2), informing them of the unsuccessful search.

2.2 Data Flows

2.2.1 User Access – Data Flow

2.2.1.1 Log In

Data Flow	Data Item	Description
Login Credentials	Username Password	The user's credentials for validation and authentication.
Matched Credentials	Username Password	The credentials found in the user accounts database.
Token	Session Token	A token given from cookies to create a new Log in session
Success Message	Message	A message notifying the user that Log in was successful.
Failure Message	Message	A message notifying the user that Log in was unsuccessful.

2.2.1.2 Forgot Password

Data Flow	Data Item	Description
Email	Username Password	The user's email address for validation and authentication.
Matched Security	Username	The security question found in the user accounts

question	Password	database.
Reset Link	Link	A secure link sent to the user for resetting the password.
Password	Password	The current or new password entered by the user.
New Password	Password	A newly chosen password by the user.
Success Update	Status	Confirmation that the password update was successful.
Success Message	Message	A message notifying the user that the password change was successful.
Failure Message	Message	A message notifying the user that the password change was unsuccessful.

2.2.1.3 Log Out

Data Flow	Data Item	Description
Logout Request	Request	A request from the user to terminate the active session.
Success Session Termination	Session Status	A confirmation message that the session has been successfully terminated.
Success Message	Message	A message displayed to the user confirming successful logout.

2.2.2 Jobs Management – Data Flow

2.2.2.1 Add New Job Card

Data Flow	Data Item	Description
Job Card Data	Customer Phone Registration Plate Location of Visit Date of Call	The Job Card's Information that will be saved to the database.

	Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage Total Costs	
Valid Data	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage	The Job Card's Validated Information that will be saved to the database.

	Total Costs	
Success Message	Message	A message notifying the user that adding new Job Card was successful.
Failure Message	Message	A message notifying the user that adding new Job Card was unsuccessful.

2.2.2.2 Print Job Card List

Data Flow	Data Item	Description
Selected Job Cards	Customer Car Info(Car Brand and Model-Registration Plate) Phone Job Start Date Job End Date Status	A short Information of the Job Cards selected by user to print
Job Card List	Customer Car Info(Car Brand and Model-Registration Plate) Phone Job Start Date Job End Date Status	The Information of the Job Cards that will be printed

2.2.2.3 Edit Job Card

Data Flow	Data Item	Description
Selected Job Cards	Customer Phone Registration Plate Job Start Date Job End Date Car Brand and Model Photos of Damage Total Costs	A short Information of the Job Cards selected by user to edit
New Job Card Information	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part	The New Job Card's Information that will be saved to the database

	Photos of Damage Total Costs	
Validated Job Card Data	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage Total Costs	The Job Card's Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that editing was successful.
Error Message	Message	A message notifying the user that editing was unsuccessful.

2.2.2.4 Delete Job Card

Data Flow	Data Item	Description
Selected Job Cards	Customer Phone Registration Plate Job Start Date Job End Date Car Brand and Model Photos of Damage Total Costs	A short Information of the Job Cards selected by user to delete
Confirmation for Delete Data	Confirmation Window	A Confirmation Window for user to confirm if he wants to delete or not
Yes/No	Yes/No	The answer to the Confirmation Window by the user
Success Message	Message	A message notifying the user that deleting was successful.
Error Message	Message	A message notifying the user that deleting was unsuccessful.

2.2.2.5 Search Job Card

Data Flow	Data Item	Description
Searched Job Card	Customer Car Info(Car Brand and Model- Registration)	A short Information of the Job Cards selected by user to search

	Plate) Phone Status	
Error Message	Message	A message notifying the user that searching was unsuccessful.

2.2.2.6 Print Job Card

Data Flow	Data Item	Description
Selected Job Card	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage Total Costs	A short Information of the Job Card selected by user to print

Job Card	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage Total Costs	The Information of the Job Cards that will be printed

2.2.3 Parts Management – Data Flow

2.2.3.1 Add New Part

Data Flow	Data Item	Description
Part Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	Information about the part being added, including essential details.
Valid Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	Validated user data.
Success Message	Message	A message notifying the user that add part was successful.

Error Message	Message	A message notifying the user that add part was unsuccessful.
---------------	---------	--

2.2.3.2 Print Part List

Data Flow	Data Item	Description
Selected Part Data	Part Name/ Description Date Supplier Price Per Piece Sell Price Stock Quantity	Information about parts list.
Part List	Part Name/ Description Supplier Price Per Piece Stock Quantity	A list displaying available parts along with their details and stock status.

2.2.3.3 Edit Part

Data Flow	Data Item	Description
Selected Part Data	Part Name/ Description Supplier details Pieces Purchased	Complete details of the part being processed.

	Price Per Piece Date Created VAT Selling Price Price Bulk	
New Part Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	The New Part's Information that will be saved to the database
Validated Part Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	The Part's Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that edit Part was successful.
Error Message	Message	A message notifying the user that edit Part was unsuccessful.

2.2.3.4 Delete Part

Data Flow	Data Item	Description

Selected Part Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	Complete details of the part before deletion.
Confirmation for Delete Data	Confirmation Window	A Confirmation Window for user to confirm if he wants to delete or not
Yes/No	Yes/No	The answer to the Confirmation Window by the user
Success Message	Message	A message notifying the user that Delete Part was successful.
Error Message	Message	A message notifying the user that Delete Part was unsuccessful.

2.2.3.5 Search Part

Data Flow	Data Item	Description
Searched Part Data	Part Name/ Description Supplier Phone Email	Search a specific part.
Show Searched Part	List of Parts	Displays a list of all available parts in the system.
Error Message	Message	A message notifying the user that the Searched Part was not found.

2.2.3.6 Print Part

Data Flow	Data Item	Description
Selected Part Data	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	Information about a specific part.
Part	Part Name/ Description Supplier details Pieces Purchased Price Per Piece Date Created VAT Selling Price Price Bulk	A displaying available part along with their detail and stock status.

2.2.4 Customer Management – Data Flow

2.2.4.1 Add New Customer

Data Flow	Data Item	Description
Customer Data	First Name Surname Company Name Address Phone Number Email Address	The Customer's Information that will be saved to the database.
Valid Data	First Name Surname Company Name Address Phone Number Email Address	The Customer's Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that adding new customer was successful.
Failure Message	Message	A message notifying the user that adding new customer was unsuccessful.

2.2.4.2 Delete Customer

Data Flow	Data Item	Description
Selected Customer	First Name Surname Email Phone Address	A short Customer's Information of the customer selected by user to delete
Confirmation Window	Confirmation Window	A Confirmation Window for user to confirm if he wants to delete a customer or not
Yes/No	Yes/No	The answer to the Confirmation Window by the user

Success Message	Message	A message notifying the user that deleting the customer was successful.
Failure Message	Message	A message notifying the user that deleting the customer was unsuccessful.

2.2.4.3 Edit Customer

Data Flow	Data Item	Description
Selected Customer Data	First Name Surname Email Phone Address	A short Customer's Information of the customer selected by user to edit
New Customer Data	First Name Surname Company Name Address Phone Number Email Address	The new Customer's Information of the customer to edit.
Validated Customer Data	First Name Surname Company Name Address Phone Number Email Address	The Customer's Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that editing the customer was successful.
Failure Message	Message	A message notifying the user that editing the customer was unsuccessful.

2.2.4.4 Print Customer

Data Flow	Data Item	Description
Selected Customer	First Name Surname Email Phone Address	A short Customer's Information of the customer selected by user to print
Customer's Information	First Name Surname Company Name Address Phone Number Email Address	The Customer's Information that will be printed

2.2.4.5 Print Customer List

Data Flow	Data Item	Description
Selected Customers	First Name Surname Email Phone Address	A short Customer's Information of the customers selected by user to print

Short Customers Information/Customer List	First Name Surname Email Phone Address	The Information of the customers that will be printed
---	--	---

2.2.4.6 Search Customer

Data Flow	Data Item	Description
Customer's Information	First Name Surname Company Name Email Phone Number	The Customer's Information that user types to search for a customer
Show Searched Customer	List of Customers	Displays a list of all available Customers in the system.
Error Message	Message	A message notifying the user that the Searched Customer was not found.

2.2.5 Accounting Management – Data Flow

2.2.5.1 Create Report for Job Cards List

Data Flow	Data Item	Description
Selected Job Cards	Name Job Start Date Job End Date Expenses Income	A Job Cards' finances Information of the job cards selected by user to print

	Profit	
Selected Job Cards Data/Report for Job Cards List	Name Job Start Date Job End Date Expenses Income Profit	The report for job cards that will be printed

2.2.5.2 Create Report for Parts List

Data Flow	Data Item	Description
Selected Parts	Part Description Supplier Date Created Expenses	A Parts' finances Information of the parts selected by user to print
Selected Parts Data/Report for Parts List	Part Description Supplier Date Created Expenses	The report for parts that will be printed

2.2.5.3 Create Report for Finances

Data Flow	Data Item	Description
Report Request	Report Request	The user requests the system to create a finances report.
Job Cards Information	Name Job Start Date Job End Date Expenses	The job cards information that will be printed in the report.

	Income Profit	
Parts Information	Part Description Supplier Date Created Expenses	The parts information that will be printed in the report.
Invoices Information	Invoices Details	The invoices details that will be printed in the report.
Report for Finances	Report Details	The system compiles the report and presents it to the user.

2.2.5.4 View Invoices

Data Flow	Data Item	Description
Invoice Data	Invoices Details	The system retrieves invoice records from the database.
Invoice Info	Invoices Details	A list of invoices displayed to the User

2.2.5.5 View Job Cards Details

Data Flow	Data Item	Description
Job Cards Data	Customer Phone Registration Plate Location of Visit Date of Call Job Description by Customer	The system retrieves Job Cards records from the database.

	Job Report Job Start Date Job End Date Rides Car Brand and Model Drive Costs Parts Used/Replaced Price for Each Part Photos of Damage Total Costs	
Financial Job Cards Info	Invoice details	The system fetches associated invoices for the job cards.
Date Selection	Date	The user initiates a report generation request, specifying date range.

2.2.5.6 View Parts Details

Data Flow	Data Item	Description
Parts Data	Part Name/Description	The system retrieves part records from the database.

	Supplier Pieces Purchased Price Per Piece Stock Quantity VAT Selling Price	
Financial Parts Info	Invoice details	The system matches parts to relevant invoices.
Date Selection	Date	The user initiates a report generation request, specifying date range.

2.2.5.7 Add Extra Expenses

Data Flow	Data Item	Description
Extra Expense Data	Expense Name Expense Price	The Extra Expense Information that will be saved to the database.
Valid Data	Expense Name Expense Price	The Extra Expense Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that adding new Expense was successful.
Failure Message	Message	A message notifying the user that adding new Expense was unsuccessful.

2.2.5.8 Edit Extra Expenses

Data Flow	Data Item	Description
Selected Expense Data	Expense Name Expense Price	The Extra Expense Information of the expense selected by user to edit.

New Expense Data	Expense Name Expense Price	The new Extra Expense Information of the customer to edit.
Valid Data	Expense Name Expense Price	The Extra Expense Validated Information that will be saved to the database.
Success Message	Message	A message notifying the user that editing the customer was successful.
Failure Message	Message	A message notifying the user that editing the customer was unsuccessful.

2.2.6 User Management – Data Flow

2.2.6.1 Add New User

Data Flow	Data Item	Description
User data	Username E-mail	The users information that will be saved in the database.
E-mail	E-mail address	The users email address.
Matched Security question	Password	The security question add in the user accounts database.
Password	Password	The password the user created.
Failed Validation	Validation	Email does not exist, or something is wrong with it.
Failure Message	Message	A message notifying the user that adding new user was unsuccessful.

2.2.6.2 Edit User

Data Flow	Data Item	Description
Selected User	Username E-mail	The selected users information from the database.
User data	Username E-mail address Password	All of the users information from the database
Valid data	User Data	Validated user data.
New User Data/New Data	Username E-mail address Password	The updated user information.
Yes/No	Yes/No	The admins answer to confirmation of changes.
Confirmation/ Confirmation failed	Yes/No	Asks the admin whether he wants to confirm the changes or abort.
Successful edit	Message	Edited data saved successfully.
Success Message	Message	Message to admin that edited information was saved successfully.
Failed Message	Message	Message to admin that edited information was not saved successfully.

2.2.6.3 Delete User

Data Flow	Data Item	Description
Selected user	Username E-mail	The selected users information from the database.
User data	Username E-mail address Password	All of the users information from the database
User account	Username E-mail address	Users information except for the password.

Valid data	User Data	Validated user data.
Delete	Delete	Delete something from the database.
Success Delete/Failed Deletion	Message	A message within the system that the deletion was a success/failure.
Success Delete Message/ Failed Delete Message	Message	A message to the user that the deletion was a success /failure.
Yes/No	Yes/No	The admins answer to confirmation of changes.
Confirmation	Yes/No	Asks the admin whether he wants to confirm the changes or abort.

2.2.7 Invoice Management – Data Flow

2.2.7.1 Add Invoice

Data Flow	Data Item	Description
Invoice Data	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The input data from user.

Valid Data	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The car data found/stored in the invoices database.
Success Message	Message	A message displayed to the user confirming successful adding invoice.
Failure Message	Message	A message notifying the user that adding invoice was unsuccessful.
Duplicate Data Message	Message	A message notifying the user that the data that enter are duplicate.

2.2.7.2 Print Invoice List

Data Item	Data Item	Description
Selected invoices	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description	The selection from user.

	Pieces Purchased Price Per Piece Selling Price	
Valid Data	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The car data found/stored in the invoices database.
Print invoice list	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The print request from user.
Failure Message	Message	A message notifying the user that print was unsuccessful.

2.2.7.3 Edit Invoice

Data Flow	Data Item	Description
Selected invoice	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The selection from user.
New invoice Data	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price	The modified data from user

	Part/Description Pieces Purchased Price Per Piece Selling Price	
Valid Data	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The car data found/stored in the invoices database.
Success Message	Message	A message displayed to the user confirming successful edit.
Failure Message	Message	A message notifying the user that editing was unsuccessful.

2.2.7.4 Delete Invoice

Data Item	Data Item	Description
Selected invoice	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total	A short invoice Information of the invoice selected by user to delete

	Price Part/Description Pieces Purchased Price Per Piece Selling Price	
Confirmation Window	Confirmation Window	A Confirmation Window for user to confirm if he wants to delete an invoice or not
Yes/No	Yes/No	The answer to the Confirmation Window by the user
Success Message	Message	A message notifying the user that deleting the invoice was successful.
Failure Message	Message	A message notifying the user that deleting the invoice was unsuccessful.

2.2.7.5 Search Invoice

Data Item	Data Item	Description
Selected invoice	Supplier Name Supplier Phone Supplier Email	The selection from user.
Show Searched invoice	List of invoices	Displays a list of all available invoices in the system.
Error Message	Message	A message notifying the user that the Searched invoice was not found.

2.2.7.6 Print Invoice

Data Item	Data Item	Description
Selected invoice	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The selection from user.
invoice	Invoice Number Date Created Supplier Name Supplier Phone Supplier Email VAT Invoice Total Price Part/Description Pieces Purchased Price Per Piece Selling Price	The invoice Information that will be printed

2.2.8 Cars Management – Data Flow

2.2.8.1 Add Car

Data Flow	Data Item	Description
Car Data	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	The input data from user.
Valid Data	Brand Model	The car data found/stored in the cars database.

	License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	
Success Message	Message	A message displayed to the user confirming successful adding car.
Failure Message	Message	A message notifying the user that adding car was unsuccessful.

2.2.8.2 Edit Car

Data Flow	Data Item	Description
Selected Car	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	The selection from user.

New Car Data	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	The modified data from user
Valid Data	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	The car data found/stored in the cars database.
Success Message	Message	A message displayed to the user confirming successful edit.
Failure Message	Message	A message notifying the user that editing car was unsuccessful.

2.2.8.3 Delete Car

Data Item	Data Item	Description
Selected Car	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	A short Car Information of the Car selected by user to delete
Confirmation Window	Confirmation Window	A Confirmation Window for user to confirm if he wants to delete a Car or not
Yes/No	Yes/No	The answer to the Confirmation Window by the user
Success Message	Message	A message notifying the user that deleting the Car was successful.
Failure Message	Message	A message notifying the user that deleting the Car was unsuccessful.

2.2.8.4 Print Car

Data Item	Data Item	Description
Selected Car	Brand Model License Number VIN Manufacture	The selection from user.

	Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	
Car	Brand Model License Number VIN Manufacture Date Fuel Type Kw/Horsepower Engine Type Km/Miles Color Comments	The invoice Information that will be printed

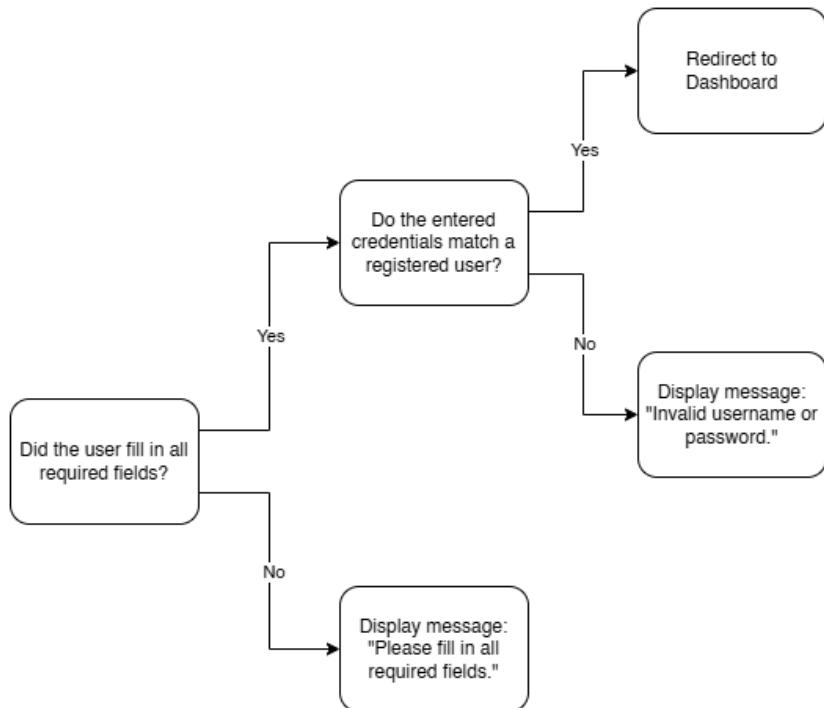
2.2.8.5 Search Car

Data Item	Data Item	Description
Selected Car	Brand Model License Number	The selection from user.
Show Searched Car Data	List of Cars	The car details presented to the user before printing.
Failure Message	Message	A message notifying the user that Search was unsuccessful.

2.3 Logic of Processes

2.3.1 User Access – Logic Of Processes

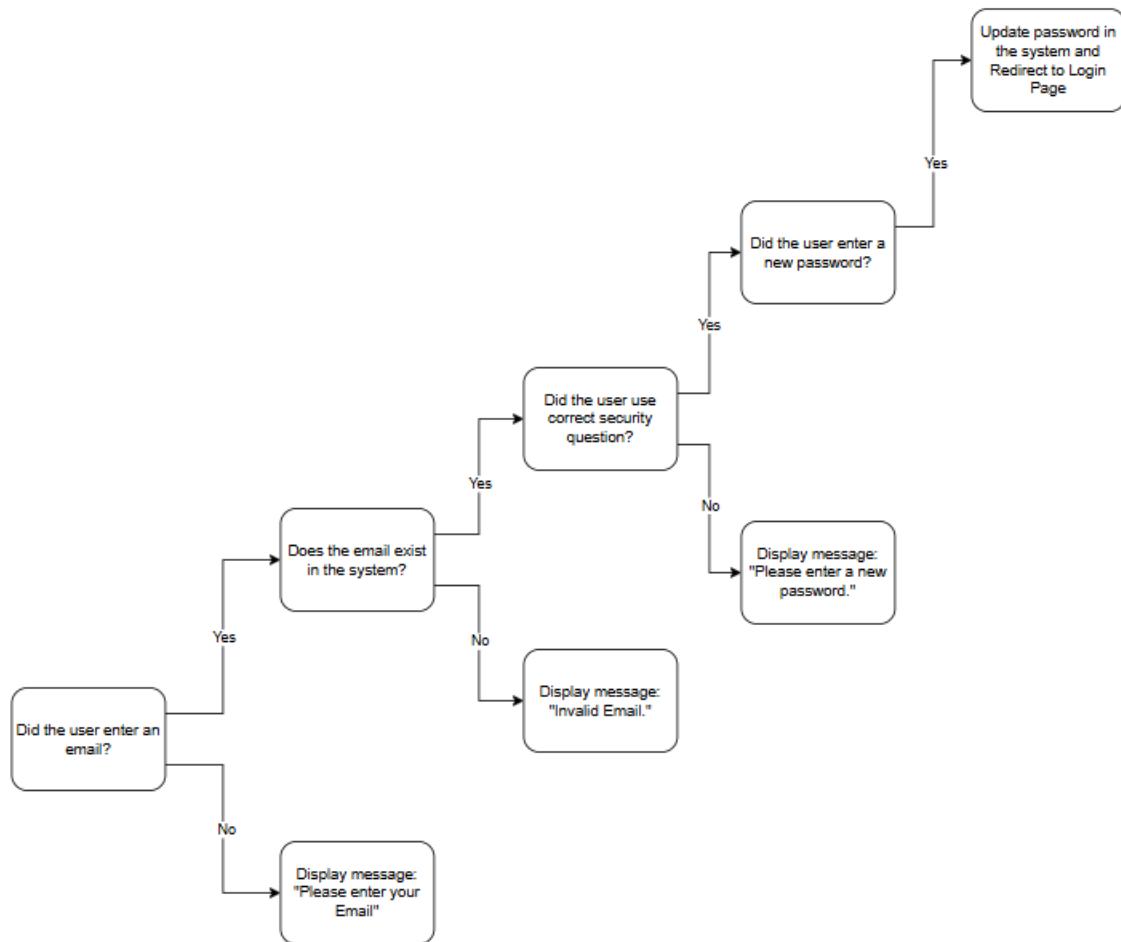
2.3.1.1 Login - Logic Of Processes



Login:

When a user attempts to sign in, they enter their credentials (username and password) into the login form. The system verifies whether all required fields are filled and checks if the provided credentials match a registered account. If the credentials are correct, the system authenticates the user and redirects it to the Dashboard.

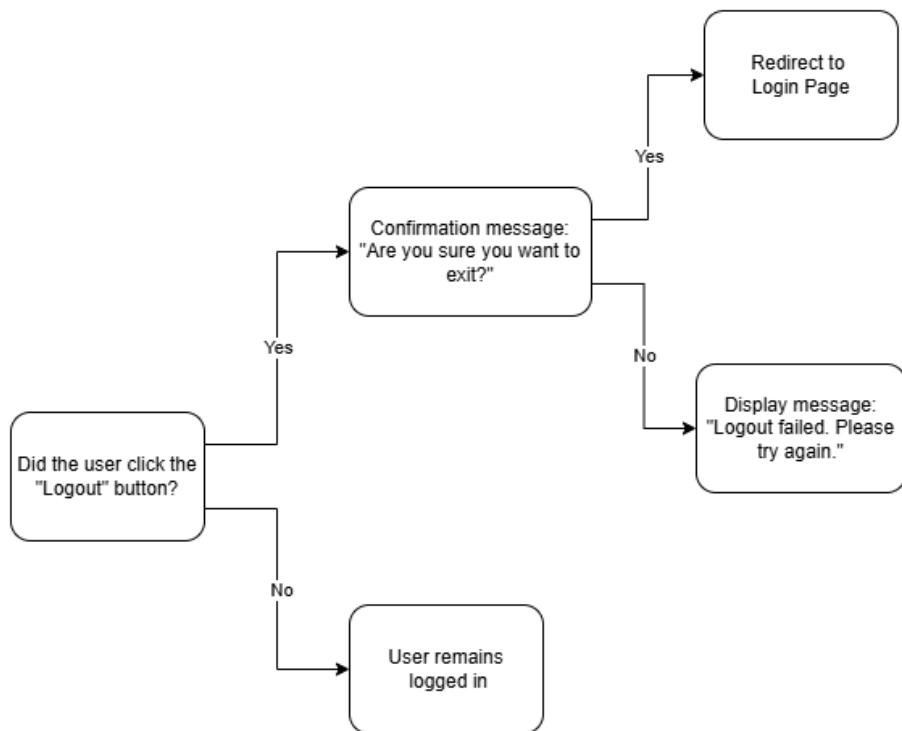
2.3.1.2 Forgot Password - Logic Of Processes



Forgot Password:

When a user Forgot Password, the recovery process begins. It starts by verifying if the user has entered an email. If not, a prompt requests the required input. The system then checks if the email exists, if invalid, an error message is displayed. If valid, the user choose a security question. If the user write correct the security question, it must enter a new password. If the field is left empty, a reminder is shown. Once a valid password is entered, the system updates it and redirects the user to the login page, confirming a successful reset.

2.3.1.3 Log Out - Logic Of Processes

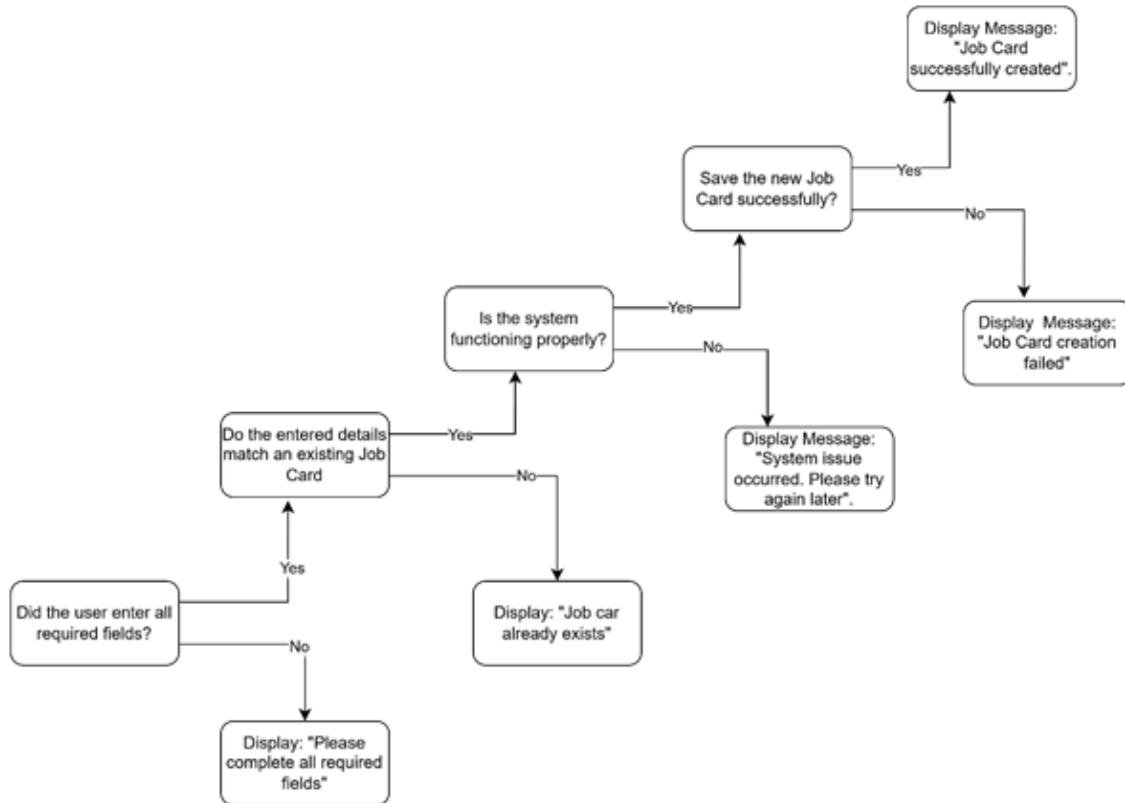


Log Out:

When the user selects the "Log Out" option, the system displays a confirmation message. If "Yes", the user is redirected to the login page with a confirmation message. If "No", an error message is displayed, prompting the user to try again.

2.3.2 Jobs Management – Logic of Processes

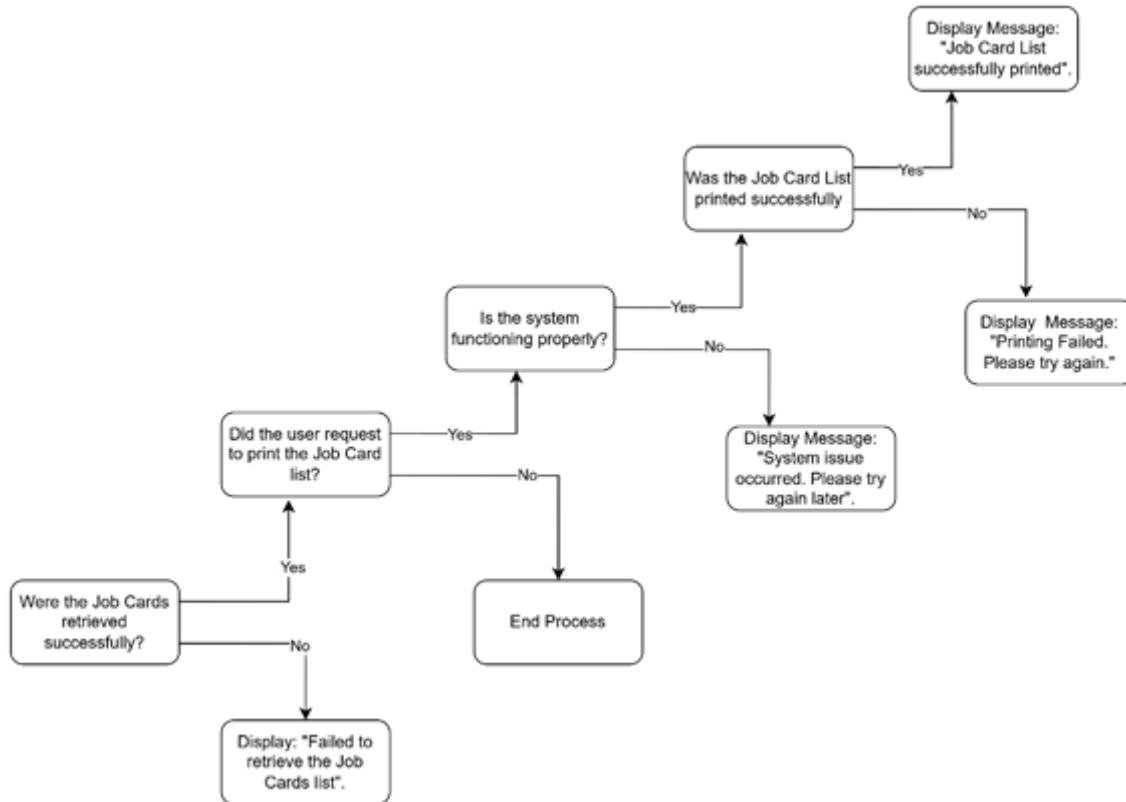
2.3.2.1 Add New Job Card - Logic of Processes



Add New Job Card:

When the user adds a New Job Card, the system first checks if all required fields are filled. If any fields are missing, a message prompts the user to complete them. Next, the system verifies whether the entered details match an existing Job Card. If they do, a message notifies the user that the Job Card already exists. If the details are unique, the system attempts to save New Job Card. If the process fails due to a system issue, an error message is displayed. Otherwise, the New Job Card is successfully created, and a confirmation message is shown.

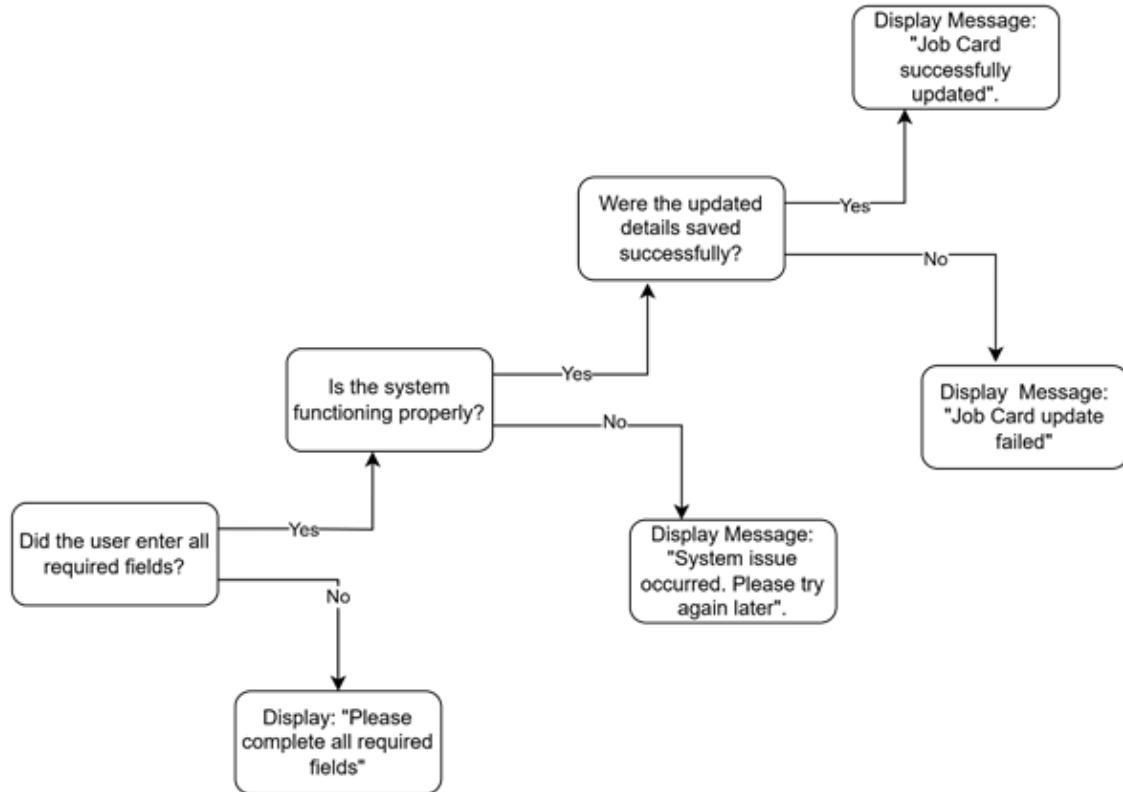
2.3.2.2 Print Job Card List - Logic Of Processes



Print Job Card List:

When the user requests to view the Job Card list, the system retrieves the Job Card details and displays them. If the user chooses to print the list, the system sends the Job Card details to the printer. If the printing process is successful, the document is printed; otherwise, an error message is displayed, informing the user of a system issue.

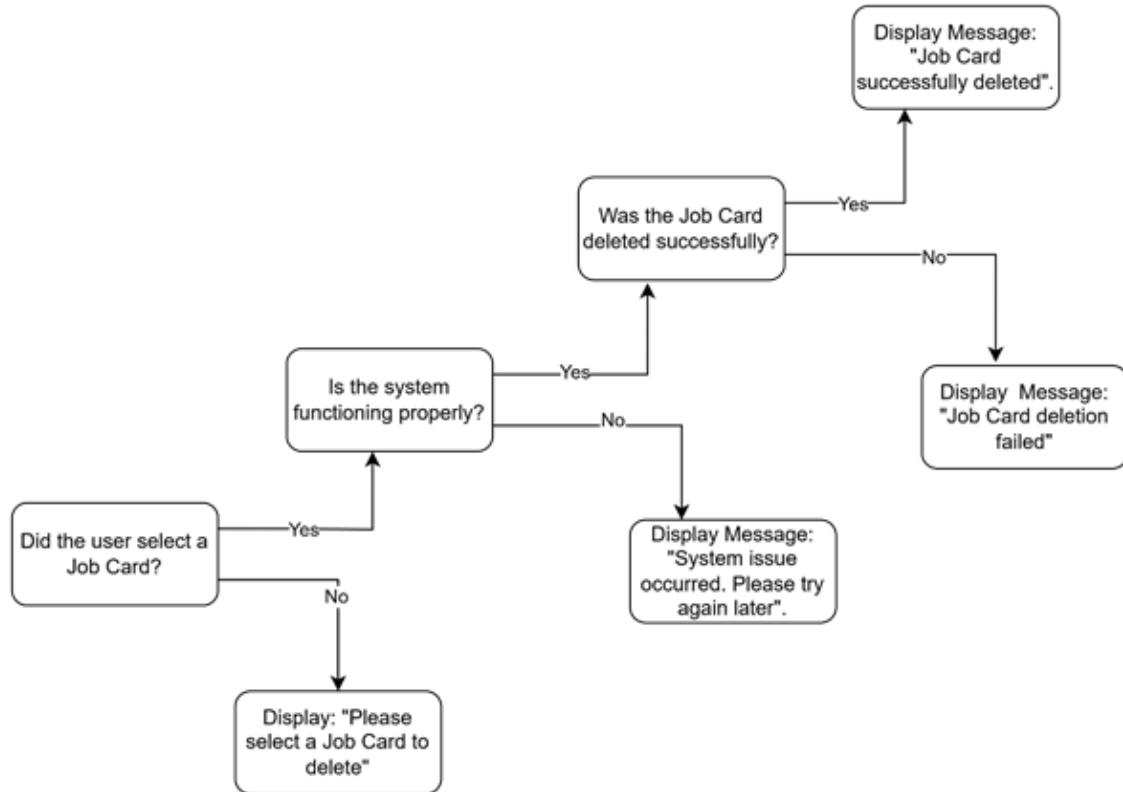
2.3.2.3 Edit Job Card - Logic of Processes



Edit Job Card:

When a user selects a Job Card, the system retrieves and displays its details. If the user chooses to edit the details, the system verifies the modifications. If all required fields are completed and the system functions properly, the updated Job Card details are saved successfully, and a confirmation message is displayed. However, if there are missing fields, an existing Job Card conflict, or a system issue, an error message is shown, prompting the user to correct the issue.

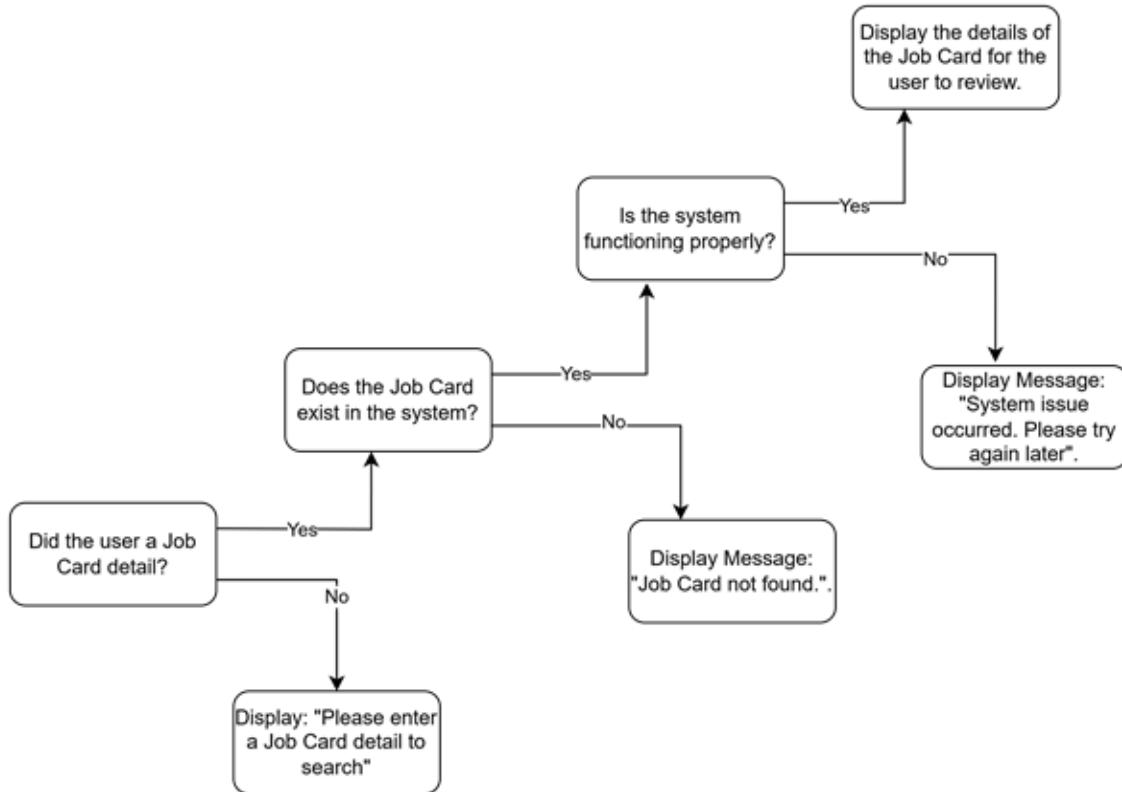
2.3.2.4 Delete Job Card - Logic of Processes



Delete Job Card:

When a user selects a Job Card, the system retrieves and displays its details. If the user chooses to delete the Job Card, the system verifies the request. If the system functions properly, the Job Card is successfully deleted, and a confirmation message is displayed. However, if a system issue occurs, an error message is shown, prompting the user to try again later.

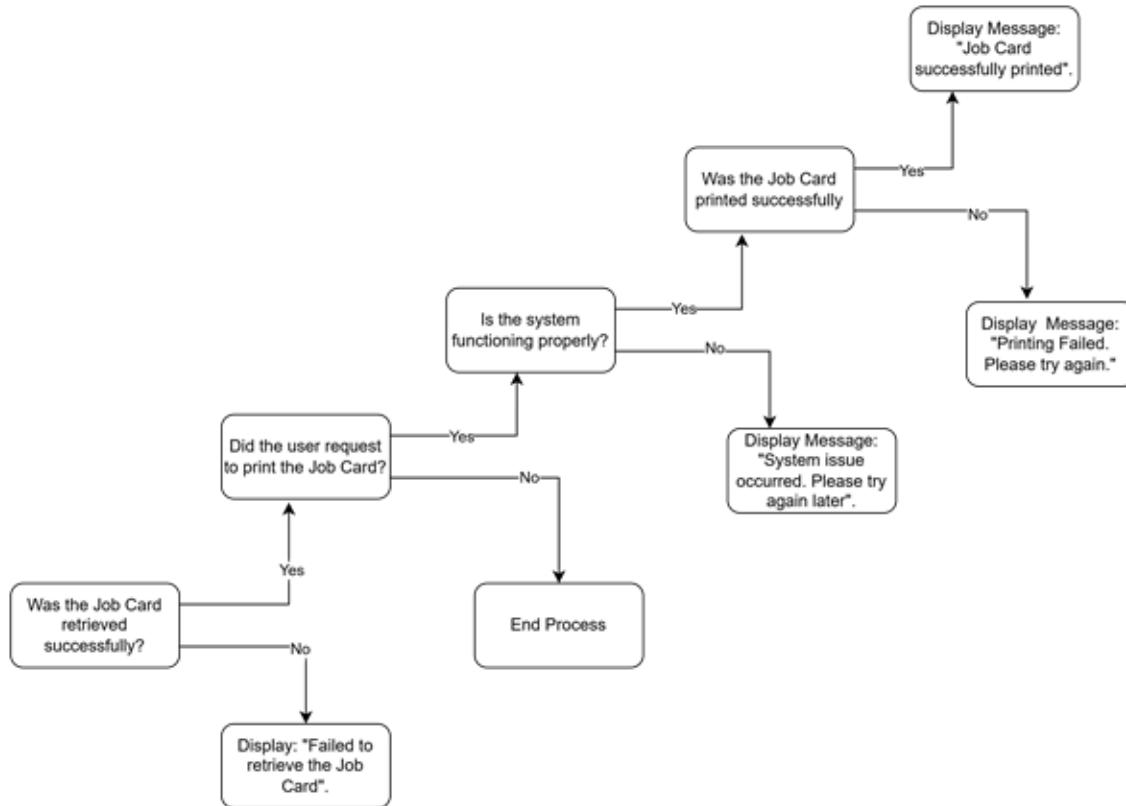
2.3.2.5 Search Job Card - Logic of Processes



Search Job Card:

When a user views the list of Job Cards, they can search for a specific Job Card by entering information about it. The system then retrieves and verifies the Job Card details. If the Job Card is found, the details are displayed for the user to review. However, if the Job Card does not exist or there is a system issue, an error message is displayed, prompting the user to refine their search or try again later.

2.3.2.6 Print Job Card - Logic of Processes

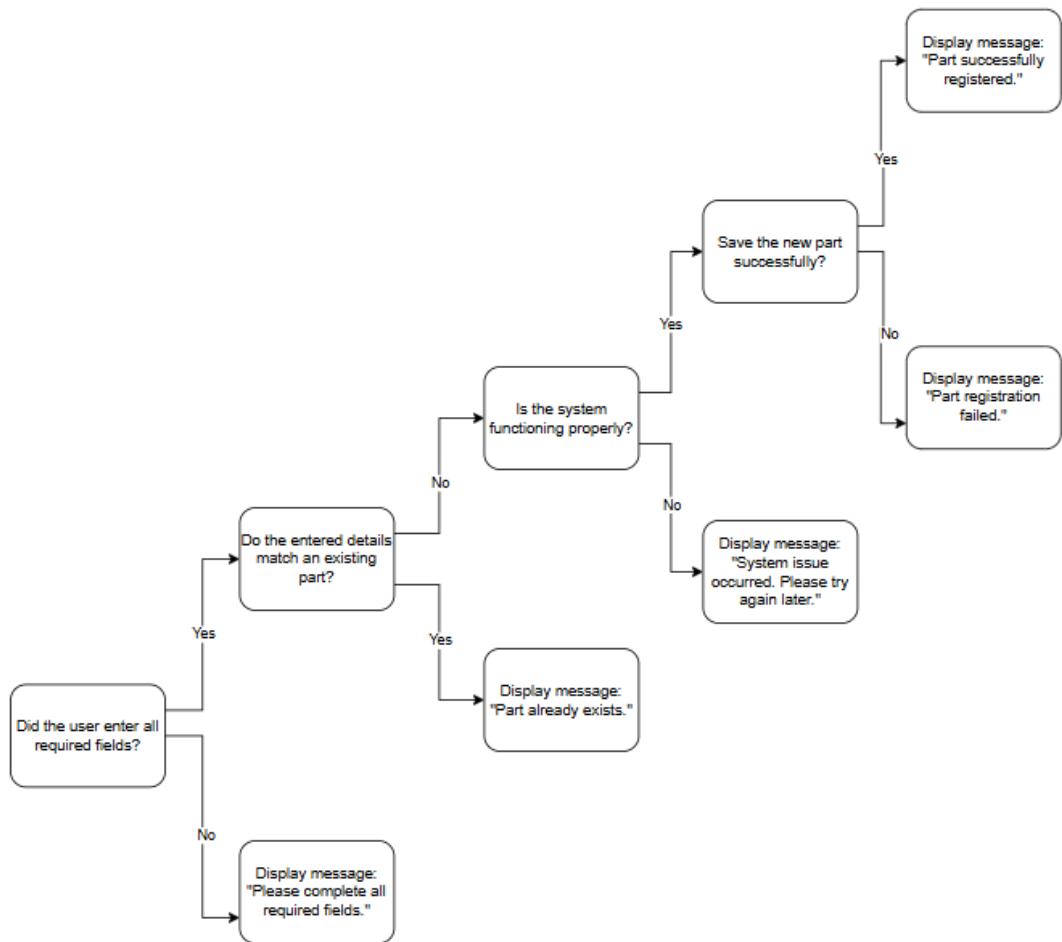


Print Job Card:

When a user requests to view the Job Card list, the system retrieves and displays the available Job Cards. The user then selects a specific Job Card, its details are shown. If the user chooses to print the Job Card and if the system is working properly, the printing process begins, and a confirmation message is displayed upon success. However, if a system issue occurs, an error message is shown, informing the user that the process cannot be completed.

2.3.3 Part Management – Logic Of Processes

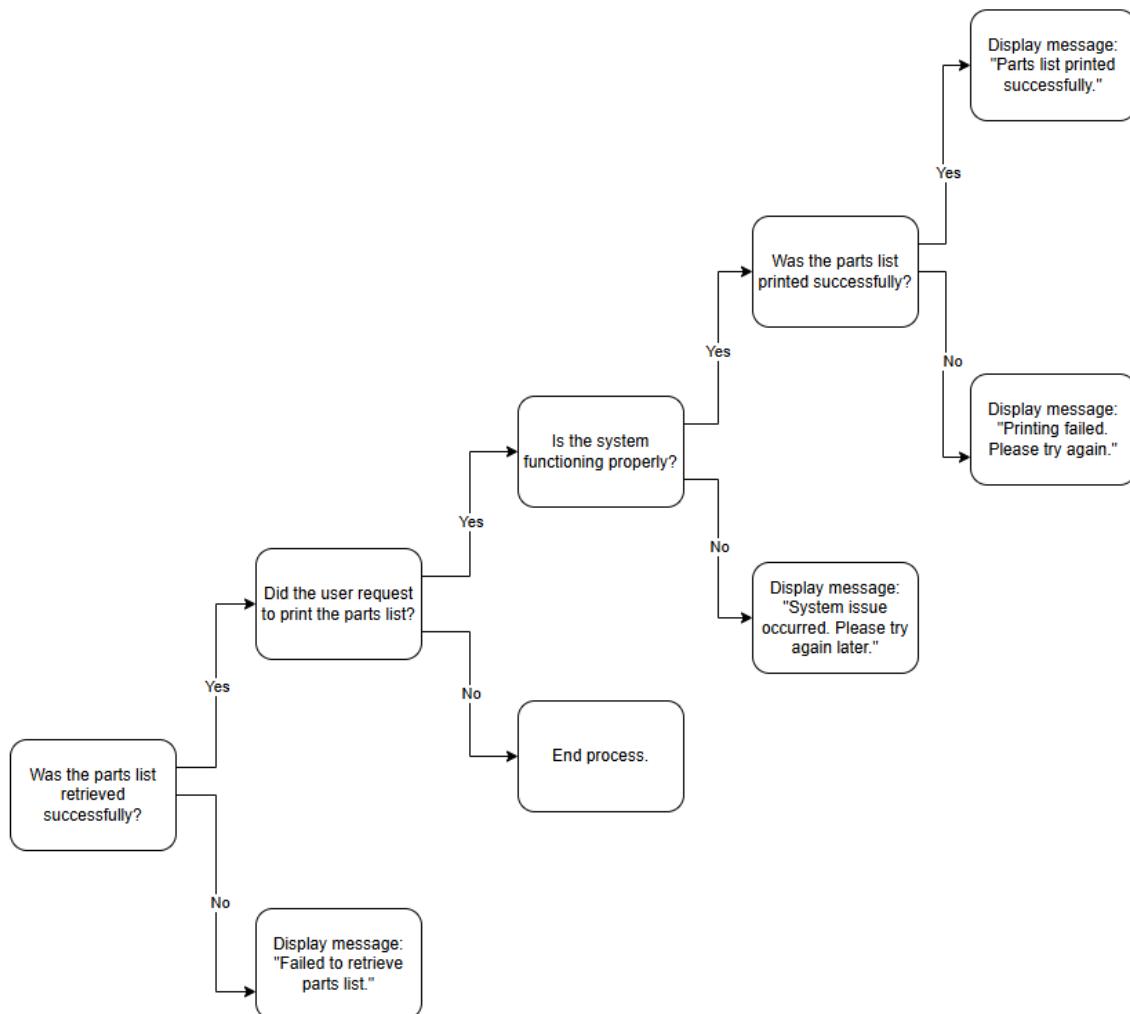
2.3.3.1 Add New Part - Logic Of Processes



Add New Part:

When the user adds a new part, the system first checks if all required fields are filled. If any fields are missing, a message prompts the user to complete them. Next, the system verifies whether the entered details match an existing part; if they do, a message notifies the user that the part already exists. If the details are unique, the system attempts to save the new part. If the process fails due to a system issue, an error message is displayed. Otherwise, the part is successfully registered, and a confirmation message is shown.

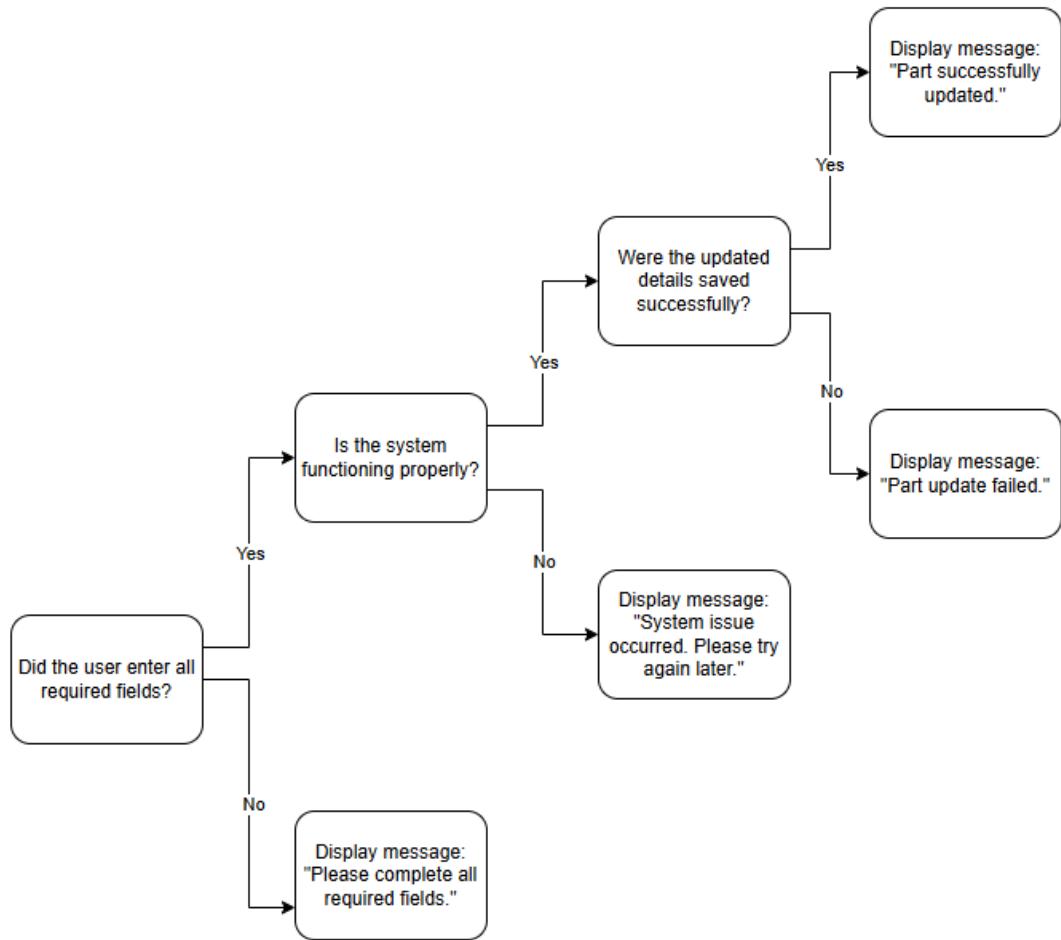
2.3.3.2 Print Part List - Logic Of Processes



Print Part List:

When the user requests to view the parts list, the system retrieves the part details and displays them. If the user chooses to print the list, the system sends the part details to the printer. If the printing process is successful, the document is printed; otherwise, an error message is displayed, informing the user of a system issue.

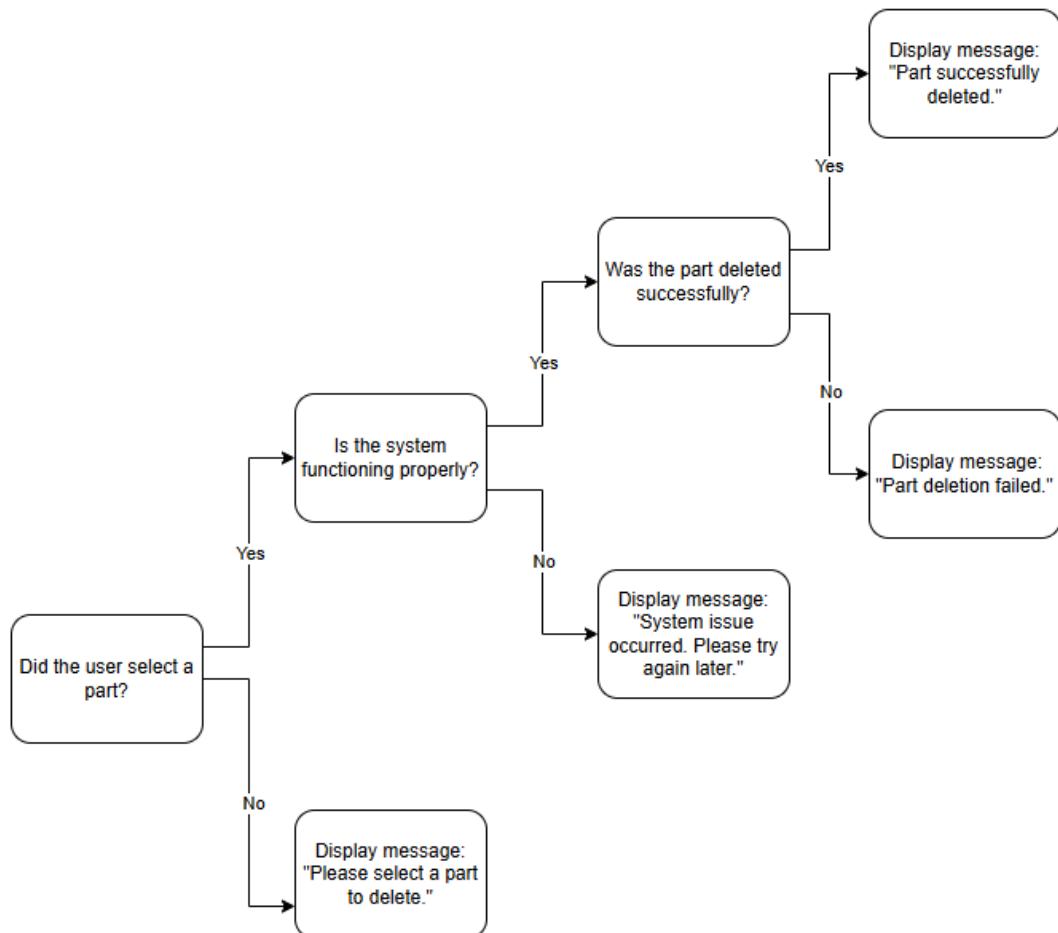
2.3.3.3 Edit Part - Logic Of Processes



Edit Part:

When a user selects a part, the system retrieves and displays its details. If the user chooses to edit the details, the system verifies the modifications. If all required fields are completed and the system functions properly, the updated part details are saved successfully, and a confirmation message is displayed. However, if there are missing fields, an existing part conflict, or a system issue, an error message is shown, prompting the user to correct the issue.

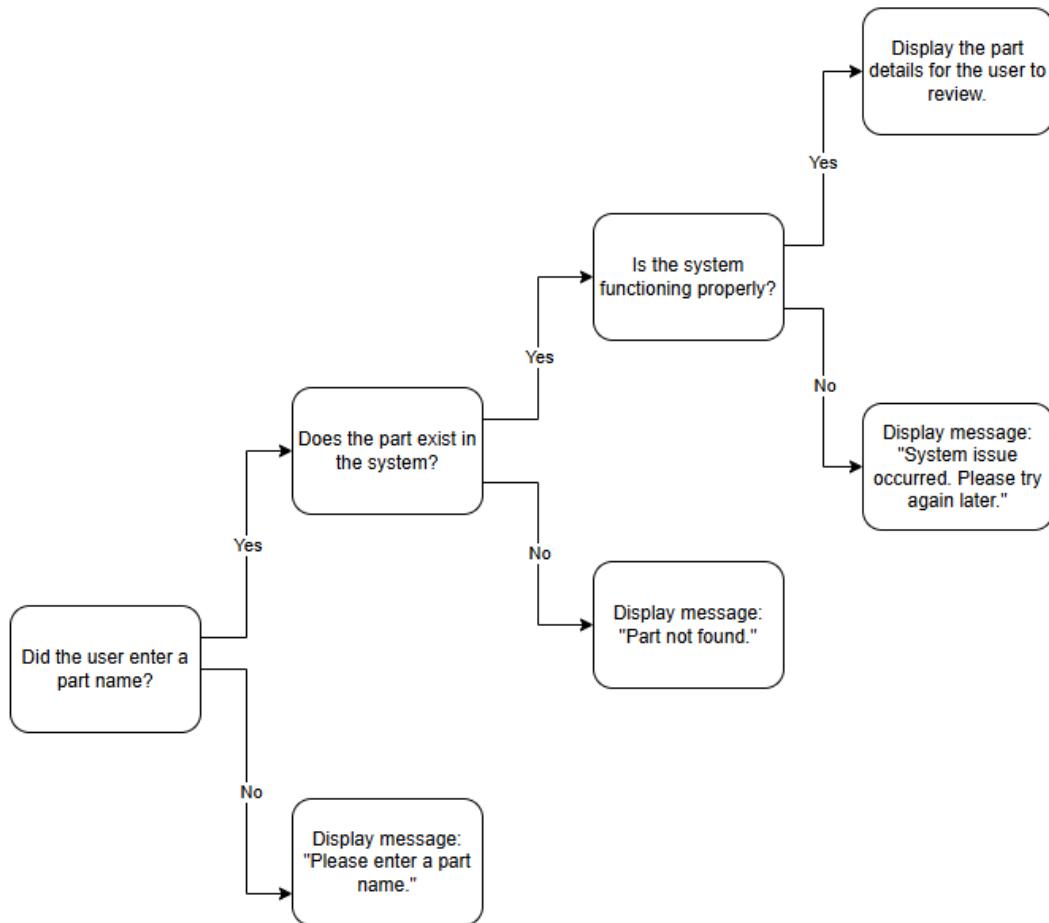
2.3.3.4 Delete Part - Logic Of Processes



Delete Part:

When a user selects a part, the system retrieves and displays its details. If the user chooses to delete the part, the system verifies the request. If the system functions properly, the part is successfully deleted, and a confirmation message is displayed. However, if a system issue occurs, an error message is shown, prompting the user to try again later.

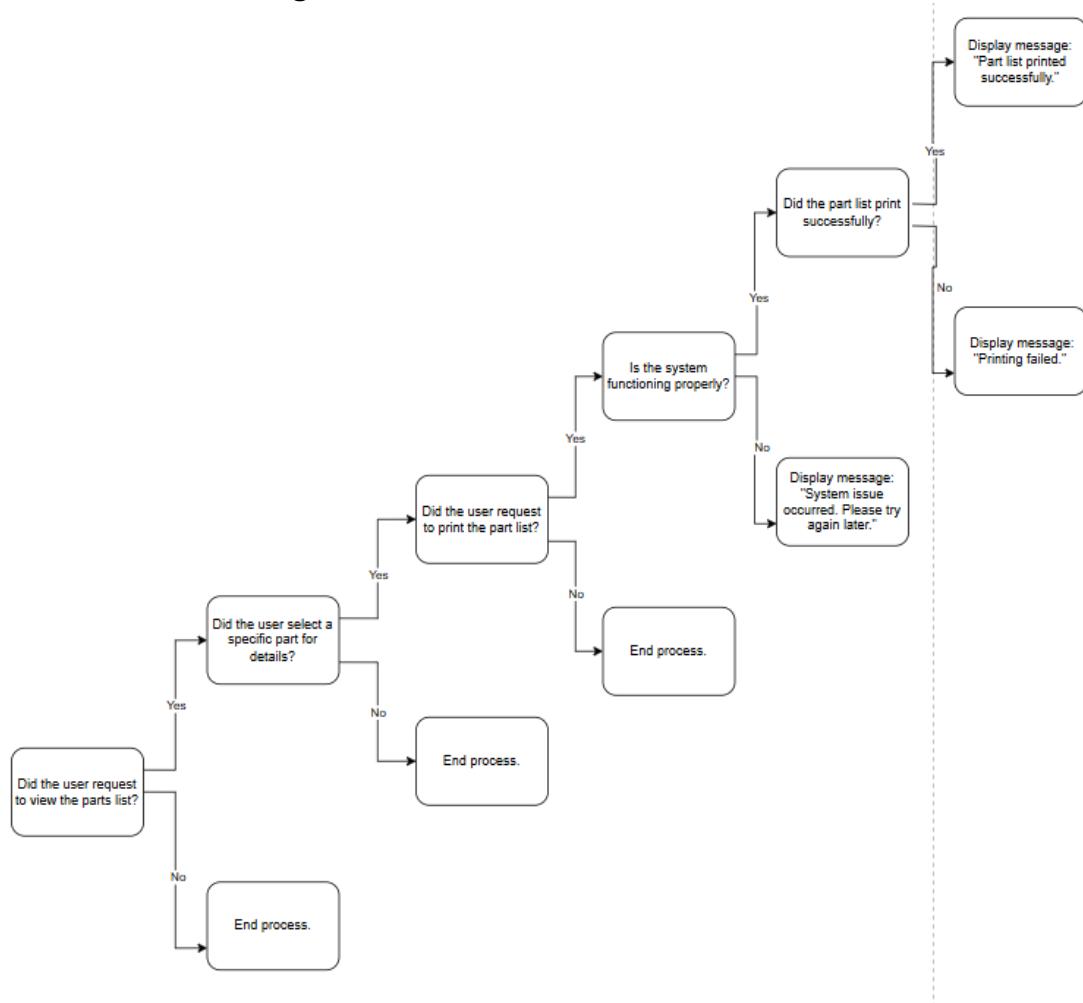
2.3.3.5 Search Part - Logic Of Processes



Search Part:

When a user views the list of parts, they can search for a specific part by entering information about it. The system then retrieves and verifies the part details. If the part is found, the details are displayed for the user to review. However, if the part does not exist or there is a system issue, an error message is displayed, prompting the user to refine their search or try again later.

2.3.3.6 Print Part - Logic Of Processes

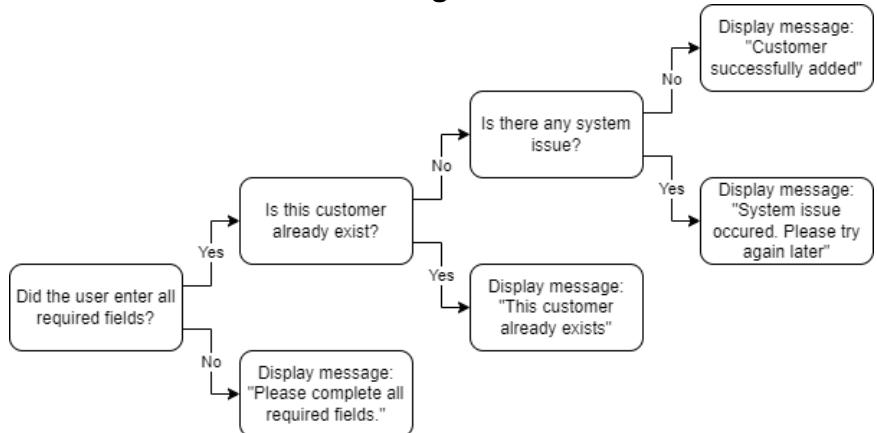


Print Part:

When a user requests to view the parts list, the system retrieves and displays the available parts. If the user selects a specific part, its details are shown. If the user chooses to print the part list, the system checks its functionality. If the system is working properly, the printing process begins, and a confirmation message is displayed upon success. However, if a system issue occurs, an error message is shown, informing the user that the process cannot be completed.

2.3.4 Customer Management – Logic Of Processes

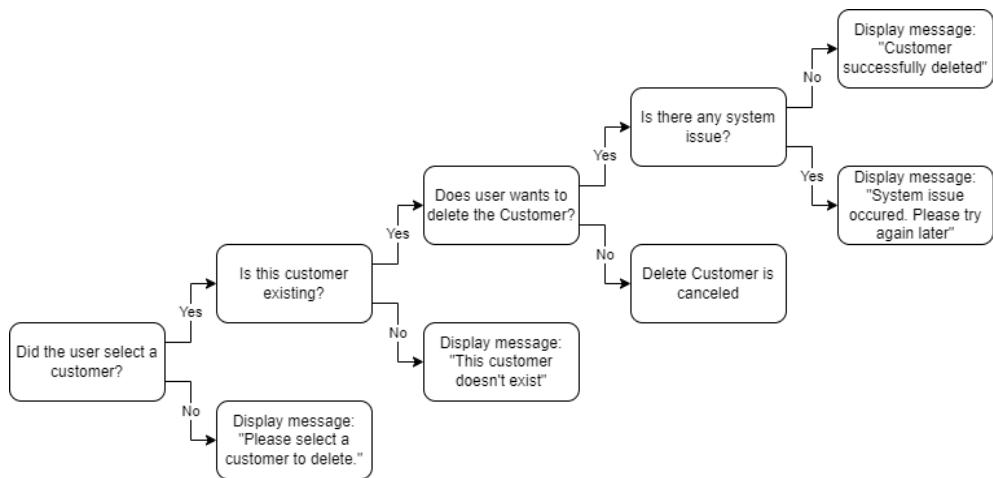
2.3.4.1 Add New Customer – Logic of Processes



Add New Customer:

When the user adds a new customer, the system first checks if all required fields are filled. If any fields are missing, a message prompts the user to complete them. Next, the system verifies whether this customer already exists in the database; if yes, a message notifies the user that the customer already exists. If not, the system will attempt to save the new customer. If there is a system issue, an error message is displayed. Otherwise, the customer is successfully added, and a confirmation message is shown.

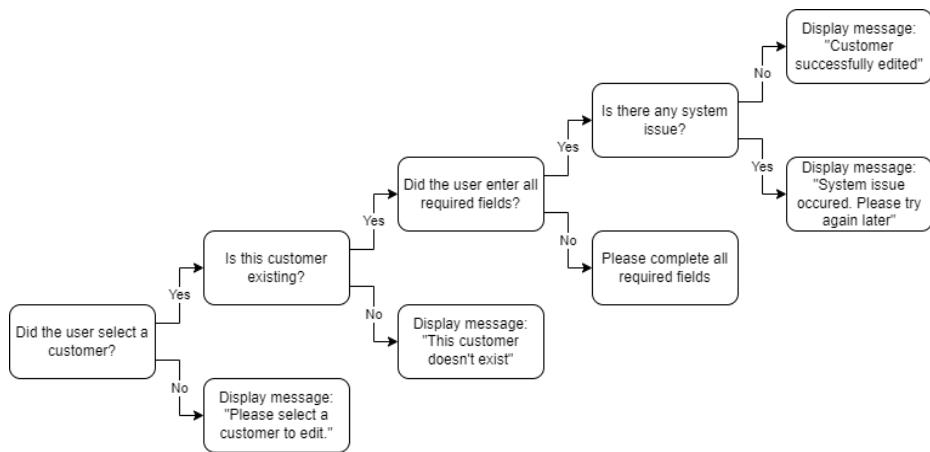
2.3.4.2 Delete Customer – Logic Of Processes



Delete Customer:

When a user wants to delete a customer, the system checks if the user selected a customer to delete. If not, a message to select a customer will be displayed. Next, the system verifies whether this customer already exists in the database; if not, a message notifies the user that the customer doesn't exist. If yes, the system will ask the user if he wants to delete this customer. If not, Delete Customer will be canceled. If yes, the system will attempt to delete the customer. If there is a system issue, an error message is displayed. Otherwise, the customer is successfully deleted, and a confirmation message is shown.

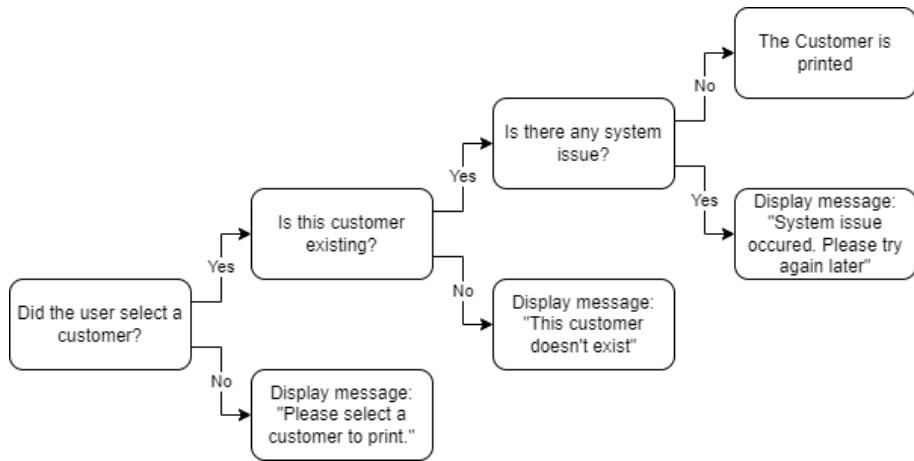
2.3.4.3 Edit Customer – Logic Of Processes



Edit Customer:

When a user wants to edit a customer, the system checks if the user selected a customer to edit. If not, a message to select a customer will be displayed. Next, the system verifies whether this customer already exists in the database; if not, a message notifies the user that the customer doesn't exist. If yes, the system will check if all required fields are filled. If any fields are missing, a message prompts the user to complete them. If all fields are correct, the system will attempt to save the new information of the customer. If there is a system issue, an error message is displayed. Otherwise, the customer is successfully edited, and a confirmation message is shown.

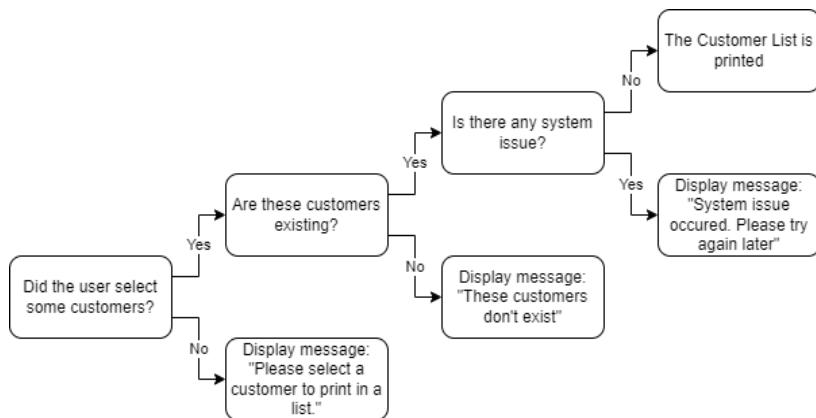
2.3.4.4 Print Customer – Logic Of Processes



Print Customer:

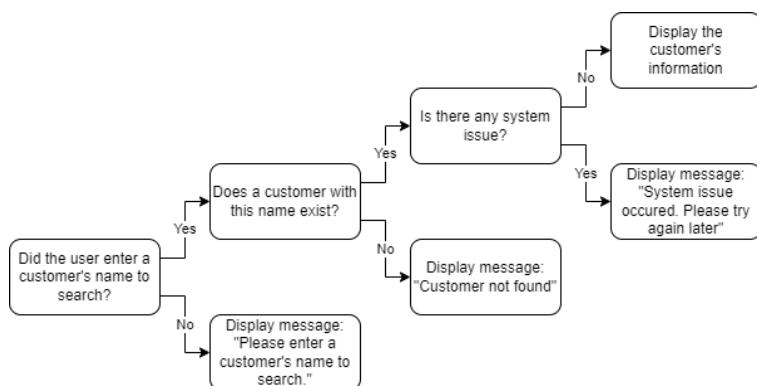
When a user wants to print a customer's information, the system checks if the user selected a customer to print. If not, a message to select a customer will be displayed. Next, the system verifies whether this customer already exists in the database; if not, a message notifies the user that the customer doesn't exist. If yes, the system will attempt to print information about the customer. If there is a system issue, an error message is displayed. Otherwise, the customer's information is successfully printed, and a confirmation message is shown.

2.3.4.5 Print Customer List – Logic Of Processes



Print Customer List:

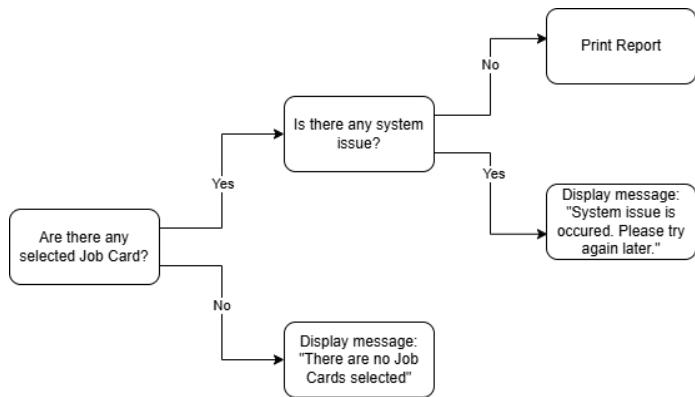
When a user wants to print a customer list, the system checks if the user selected some customers to print in a list. If not, a message to select customers will be displayed. Next, the system verifies whether these customers already exist in the database; if not, a message notifies the user that the customers don't exist. If yes, the system will attempt to print the customer list. If there is a system issue, an error message is displayed. Otherwise, the customer list is successfully printed, and a confirmation message is shown.

2.3.4.6 Search Customer – Logic Of Processes**Search Customer:**

When a user wants to search for a specific customer, the system checks if the user entered information about it. If not, a message to enter a customer's name will be displayed. If the part is found, the customer's information is displayed for the user to review. However, if the part does not exist or there is a system issue, an error message is displayed, prompting the user to refine their search or try again later.

2.3.5 Accounting Management – Logic Of Processes

2.3.5.1 Create Report for Job Cards List – Logic of Processes

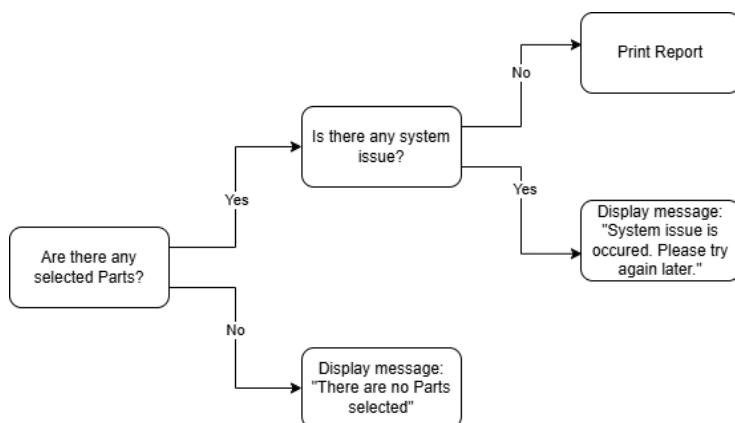


Create Report:

When a user wants to print a report for job cards, the system checks if there are selected Job Cards. If not, an error message will be displayed. Next, the system will attempt to print the report for job cards. If there is a system issue, an error message is displayed.

Otherwise, the report is successfully printed, and a confirmation message is shown.

2.3.5.2 Create Report for Parts List – Logic of Processes

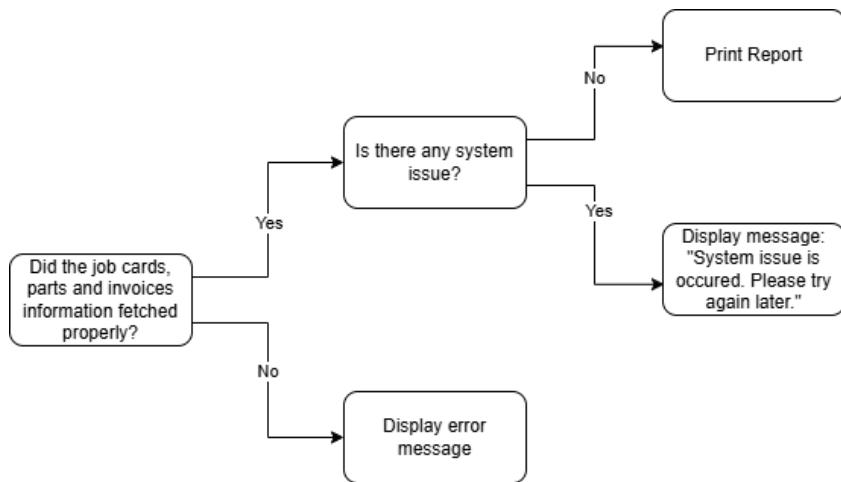


Create Report:

When a user wants to print a report for parts, the system checks if there are selected Parts. If not, an error message will be displayed. Next, the system will attempt to print the report

for parts. If there is a system issue, an error message is displayed. Otherwise, the report is successfully printed, and a confirmation message is shown.

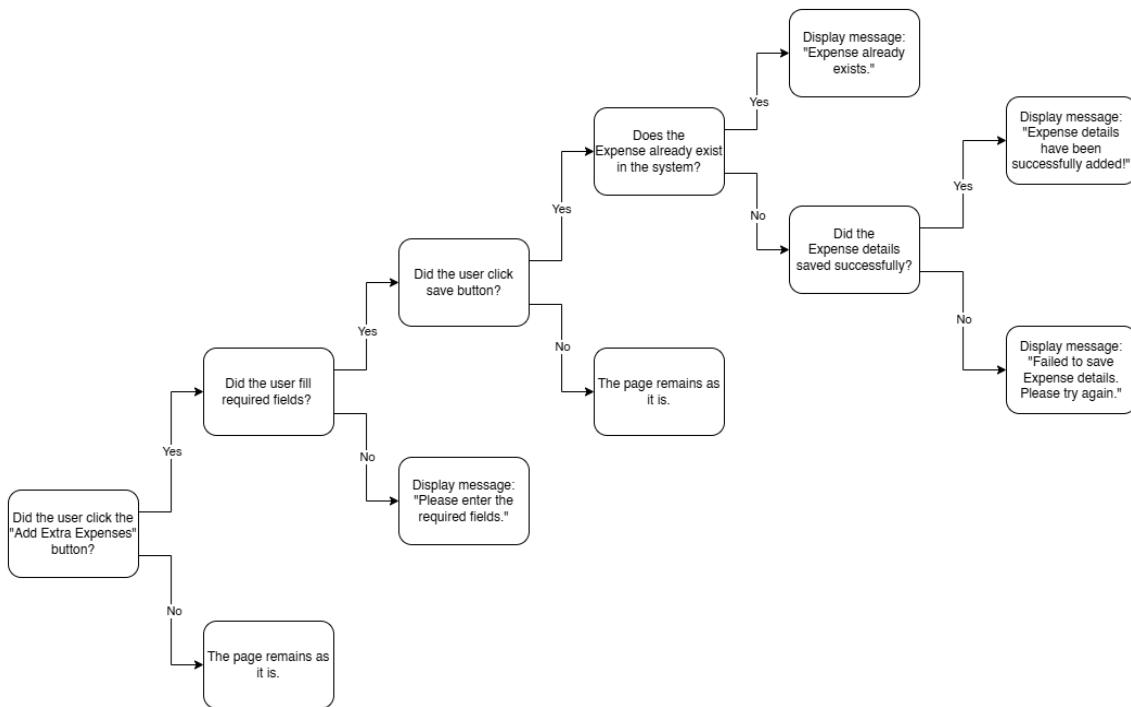
2.3.5.3 Create Report for Finances – Logic of Processes



Create Report:

When a user wants to print a report for Finances, the system checks if the Job Cards, Parts and Invoices information fetched properly. If not, an error message will be displayed. Next, the system will attempt to calculate the finances and print the report. If there is a system issue, an error message is displayed. Otherwise, the report is successfully printed, and a confirmation message is shown.

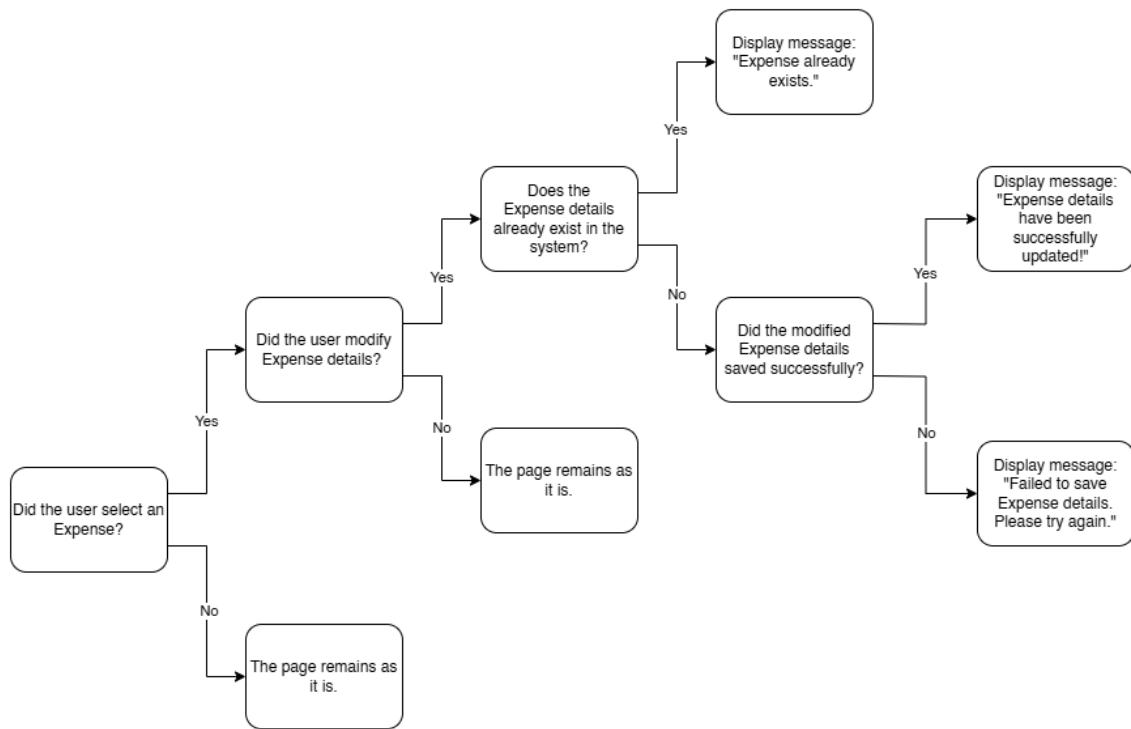
2.3.5.4 Add Extra Expenses – Logic of Processes



Add Extra Expenses:

When a user wants to add an invoice, they first click the "Add Extra Expenses" button, which opens a form for entering Expense details. The user fills in the necessary information, ensuring required fields are completed. After clicking "Save," the system checks for duplicate entries based. If a duplicate is found, a message is displayed, informing the user that the Expense already exists. If no duplicate is detected, the system attempts to save the Expense details. If the save operation fails, an error message appears, prompting the user to try again. If the save operation is successful, a confirmation message is displayed, notifying the user that the Expense has been successfully added.

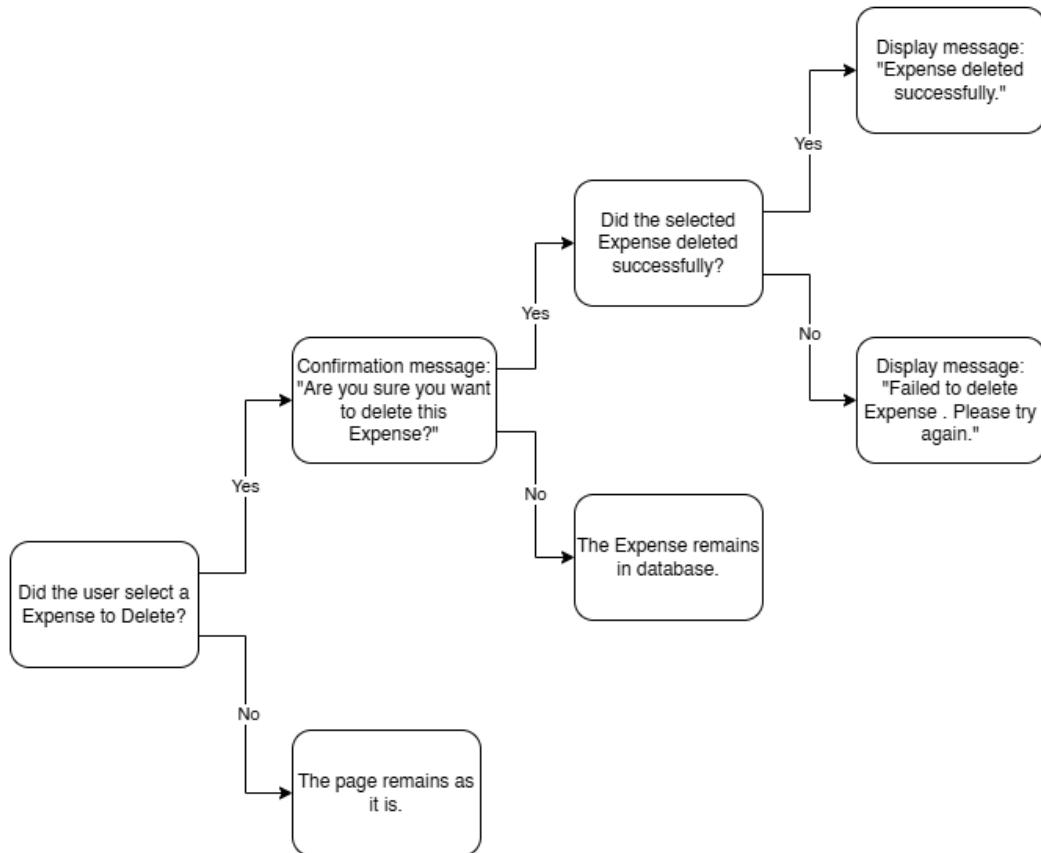
2.3.5.5 Edit Extra Expenses – Logic of Processes



Edit Extra Expenses:

When a user wants to edit an Expense, they first select it from the list. The user modifies the necessary fields and clicks the "Save" button. The system verifies if the details changed, they already exist to prevent duplicates. If no duplicates are found, the system updates the Expense data in the database. If the update is successful, the system displays a success message confirming the changes. If it fails, an error message is shown, prompting the user to retry the update.

2.3.5.6 Delete Extra Expenses – Logic of Processes

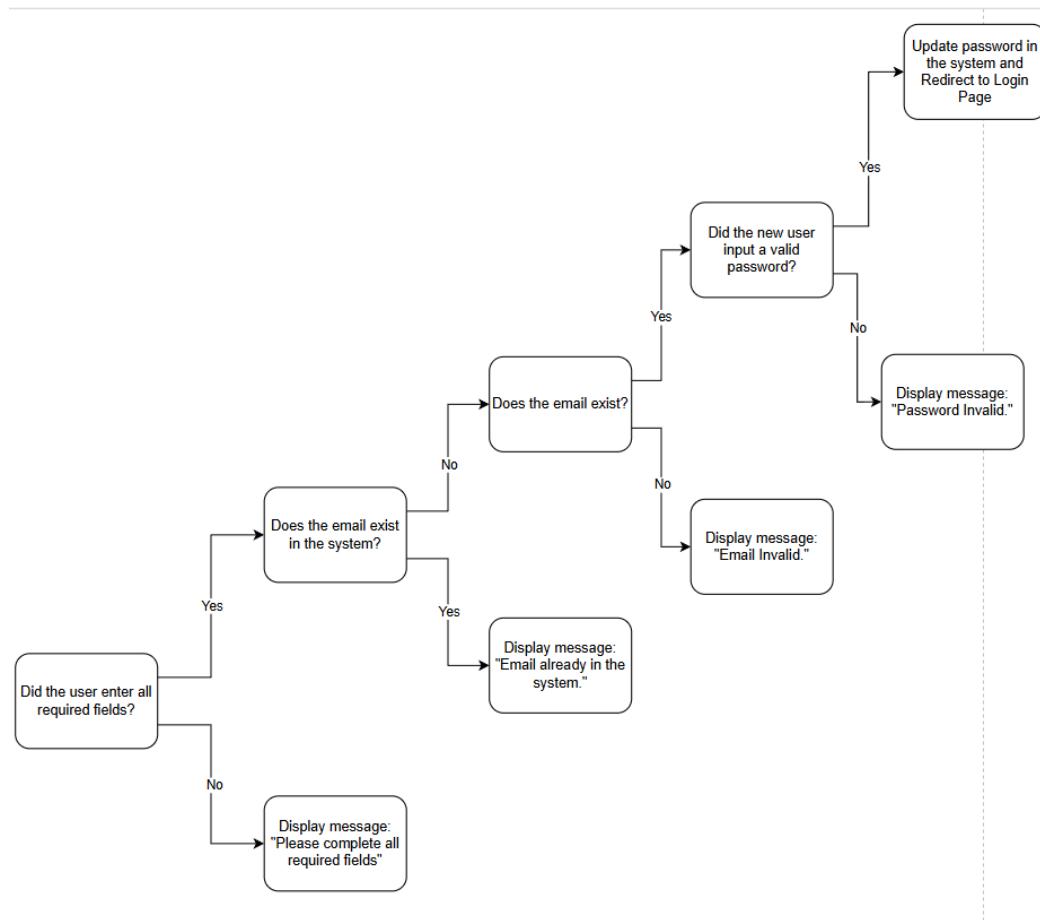


Delete Extra Expenses:

When a user wants to delete an Expense, they first select it from the list. The system then prompts the user for confirmation before proceeding. If the user confirms, the system attempts to remove the Expense data from the database. If the deletion is successful, a success message is displayed, confirming the removal. If the process fails, an error message informs the user that the Expense could not be deleted.

2.3.6 User Management – Logic Of Processes

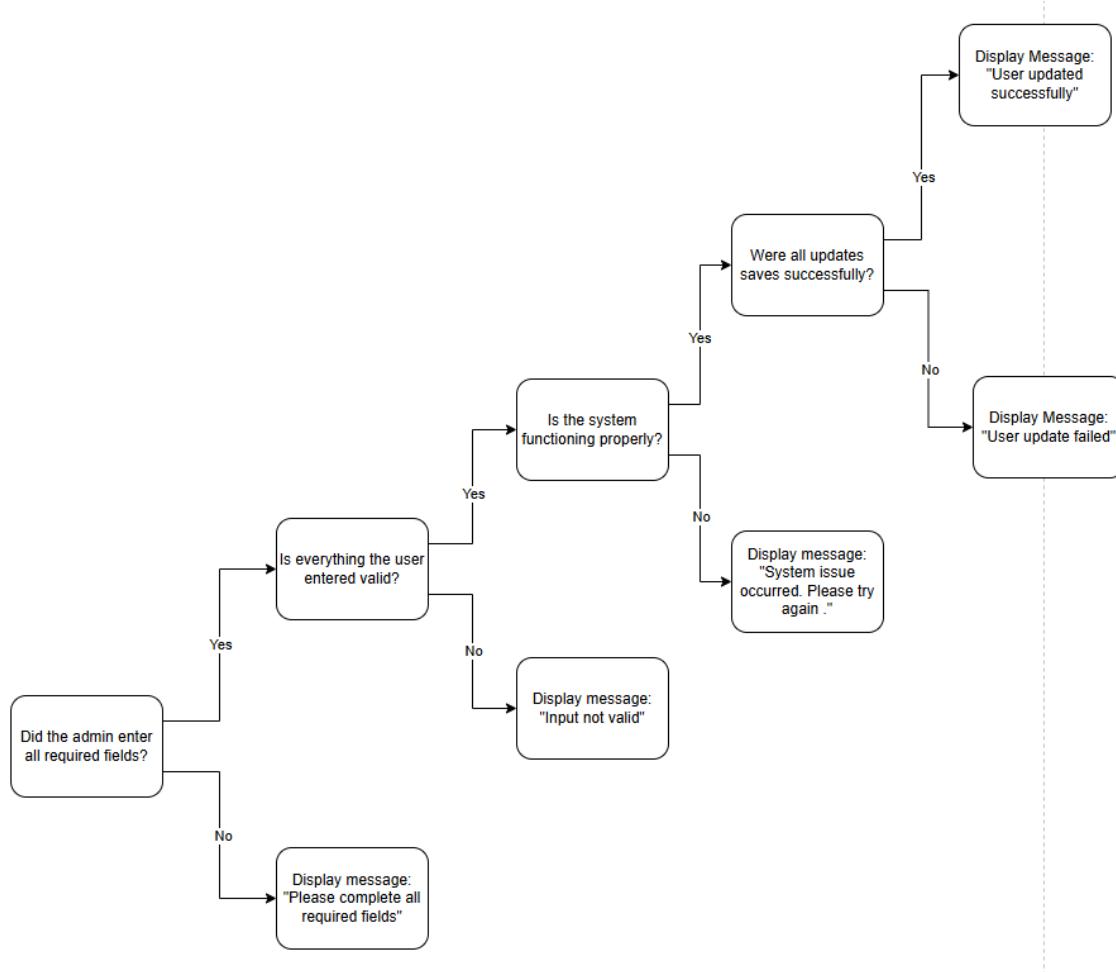
2.3.6.1 Add New User - Logic Of Processes



Add New User:

When the admin wants to add a new user to the system, after filling out all required fields the system checks if the email already exists in the system, if yes, a message is displayed, and the admin must re-enter the email. Then the system checks if the email exists, if not an error message is shown. After that the new user enters a password and the system saves it and redirects the user to the login page. However, if the password is not valid an error message is shown, and the user must enter a valid password.

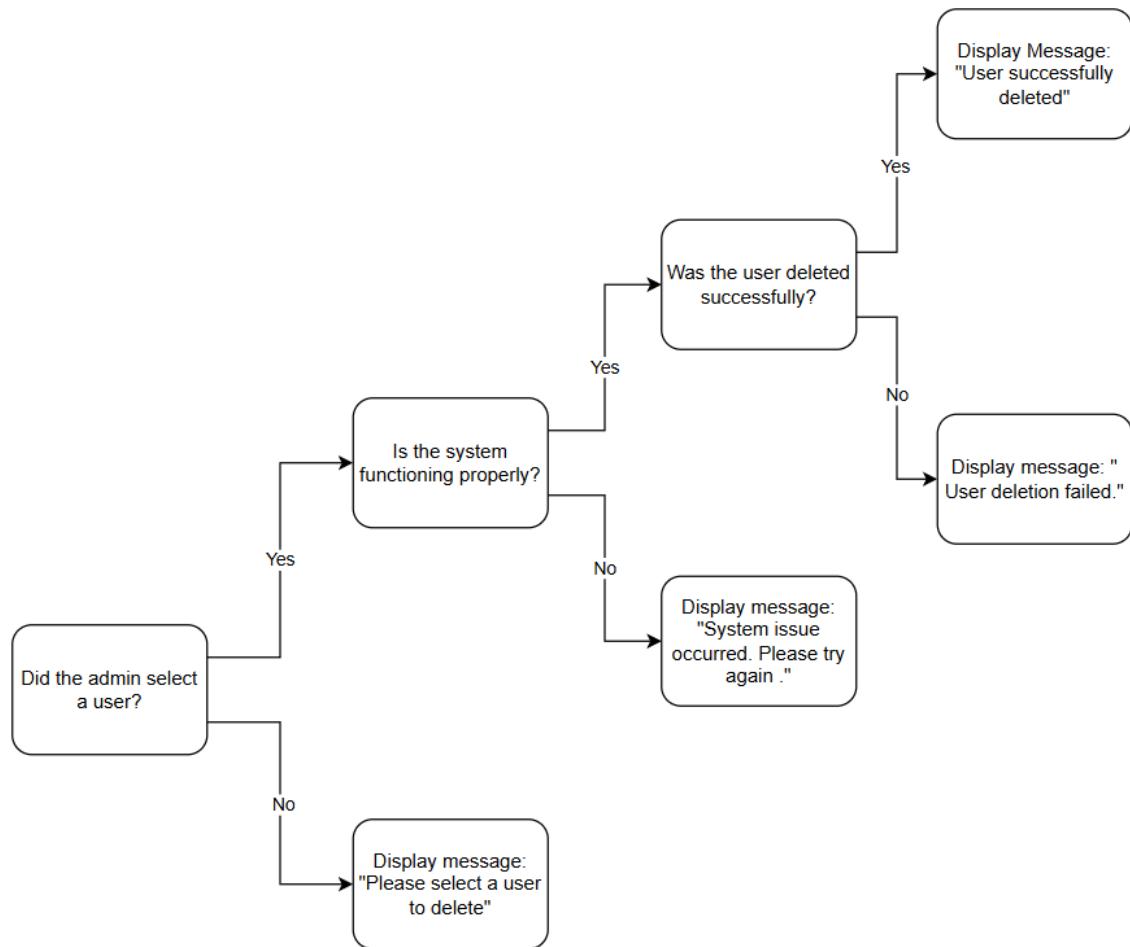
2.3.6.2 Edit User - Logic Of Processes



Edit User:

When the admin wants to edit a users information he needs to enter all required fields with valid information or else the system will respond with the according error message. After that, if the system works properly it will save all updated information and display a message saying that the user has been updated successfully. However if the system does not work properly or the updates have not been saved properly the system will respond with the correct error messages and the admin will have to try again.

2.3.6.3 Delete User - Logic Of Processes

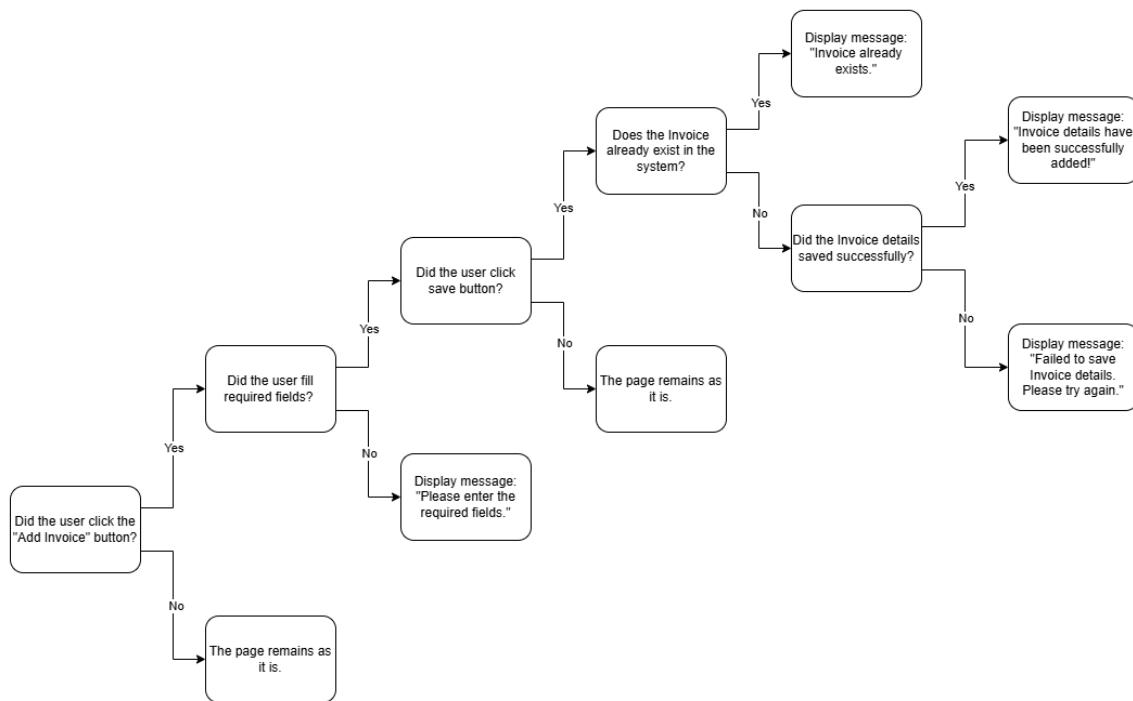


Delete User:

When the admin wants to delete a user he needs to select the desired user. If he does not select a user the system will display a message advising the admin to select a user. Once a user is chosen the system deletes him and informs the admin of the successful deletion by displaying 'User successfully deleted'. If he's not deleted successfully the system displays a message saying that user deletion failed.

2.3.7 Invoice Management – Logic Of Processes

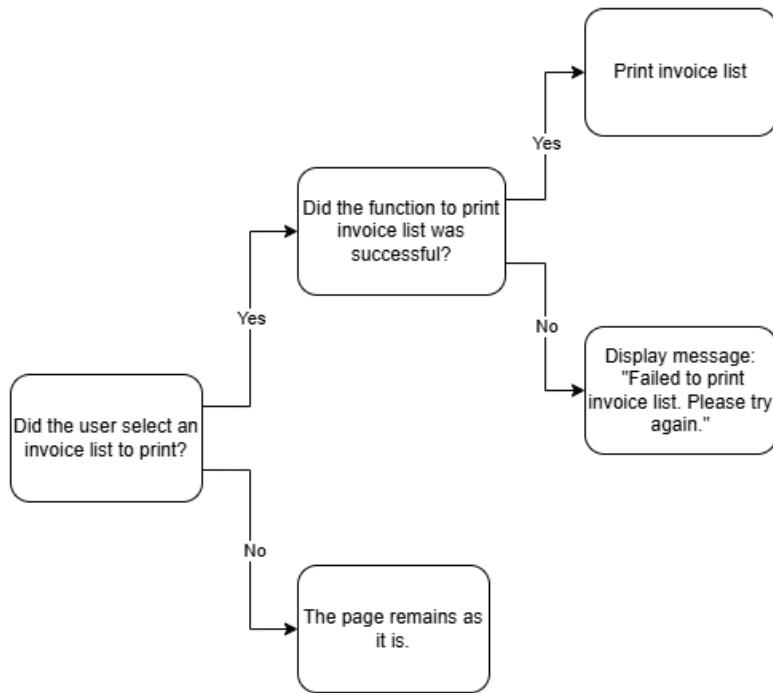
2.3.7.1 Add Invoice - Logic Of Processes



Add Invoice:

When a user wants to add an Invoice, they first click the "Add Invoice" button, which opens a form for entering Invoice details. The user fills in the necessary information, ensuring required fields are completed. After clicking "Save," the system checks for duplicate entries based. If a duplicate is found, a message is displayed, informing the user that the Invoice already exists. If no duplicate is detected, the system attempts to save the Invoice details. If the save operation fails, an error message appears, prompting the user to try again. If the save operation is successful, a confirmation message is displayed, notifying the user that the Invoice has been successfully added.

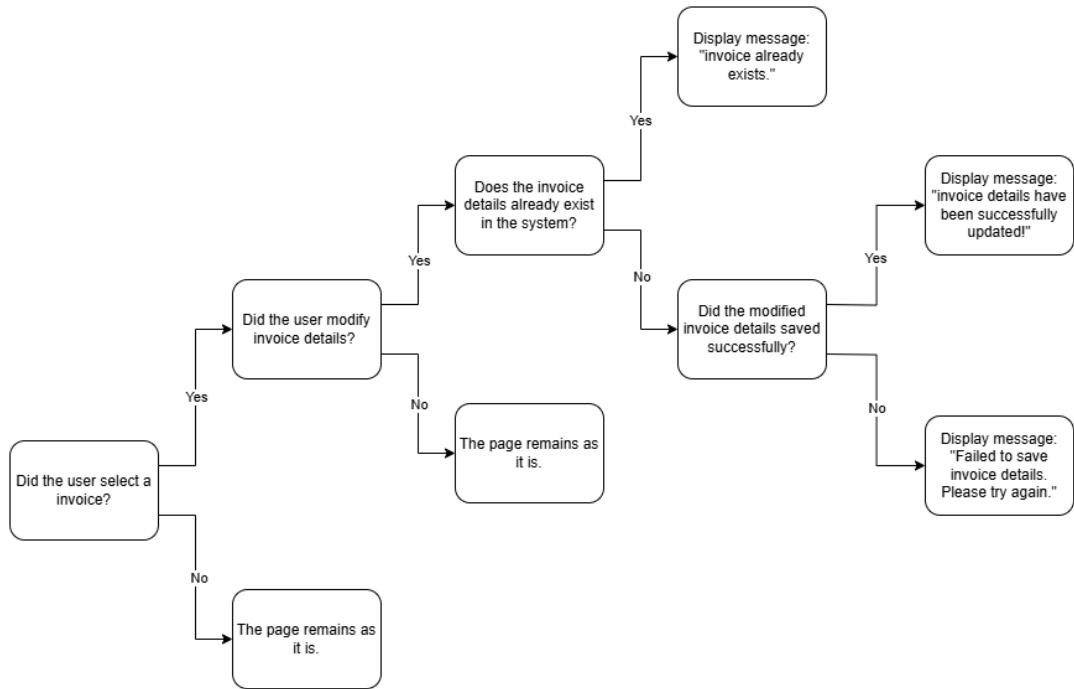
2.3.7.2 Print Invoice List - Logic Of Processes



Print Invoice List:

When a user wants to print invoice list, a printing process starts. If the printing process is successful, the details are printed, and if the printing process fails, an error message is shown to notify the user of the failure.

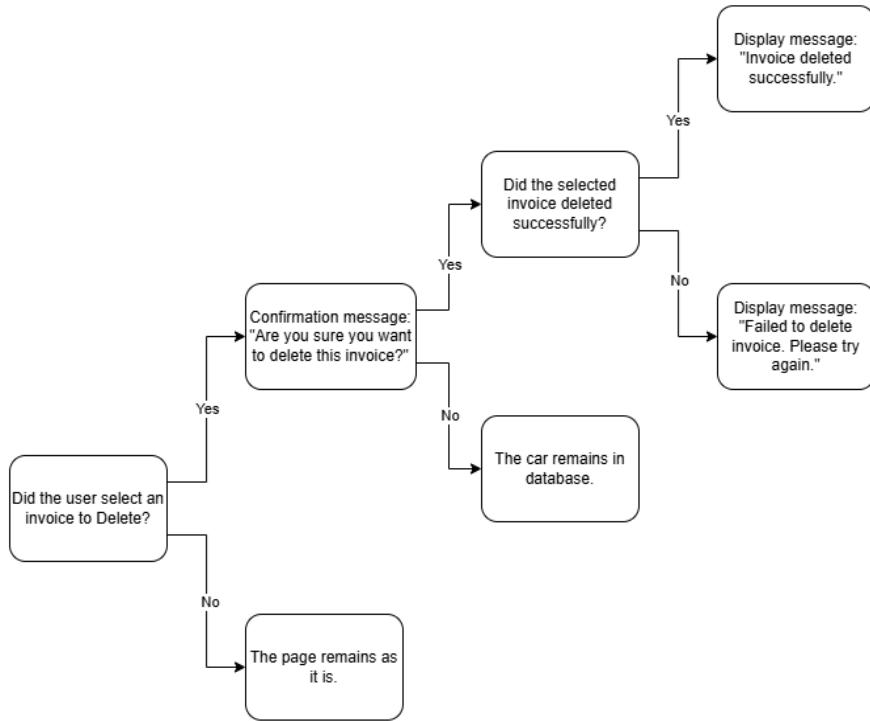
2.3.7.3 Edit Invoice - Logic Of Processes



Edit Invoice:

When a user wants to edit an invoice, they first select it from the list. The user modifies the necessary fields and clicks the "Save" button. The system verifies if the details changed already exist to prevent duplicates. If no duplicates are found, the system updates the car data in the database. If the update is successful, the system displays a success message confirming the changes. If it fails, an error message is shown, prompting the user to retry the update.

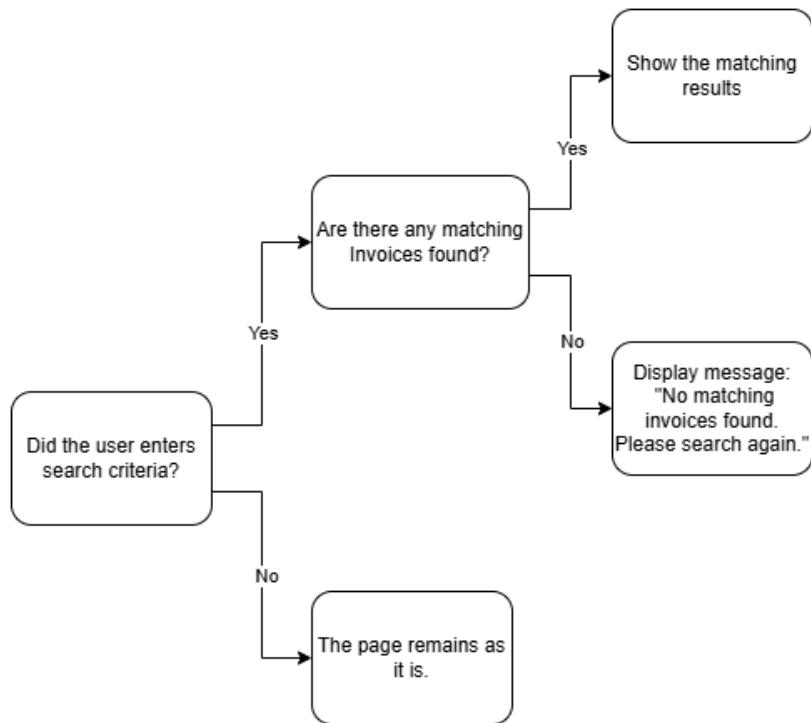
2.3.7.4 Delete Invoice - Logic Of Processes



Delete Invoice:

When a user wants to delete a invoice, they first select it from the list. The system then prompts the user for confirmation before proceeding. If the user confirms, the system attempts to remove the invoice data from the database. If the deletion is successful, a success message is displayed, confirming the removal. If the process fails, an error message informs the user that the invoice could not be deleted.

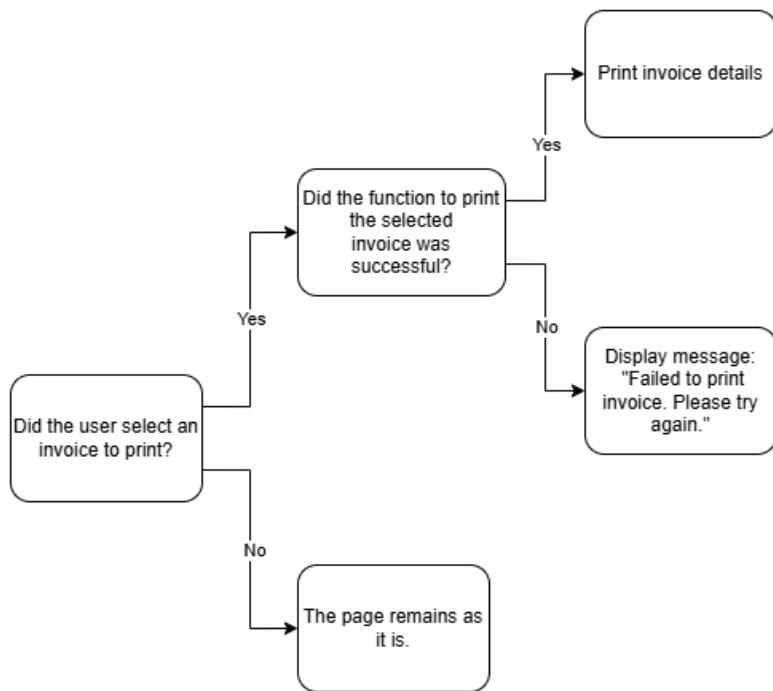
2.3.7.5 Search Invoice - Logic Of Processes



Search Invoice:

When a user searches for an invoice, they enter specific search criteria and if matching results are found, they are displayed to the user. If no records match the criteria, the system displays a message informing the user that no results were found, prompting them to search again.

2.3.7.6 Print Invoice - Logic Of Processes

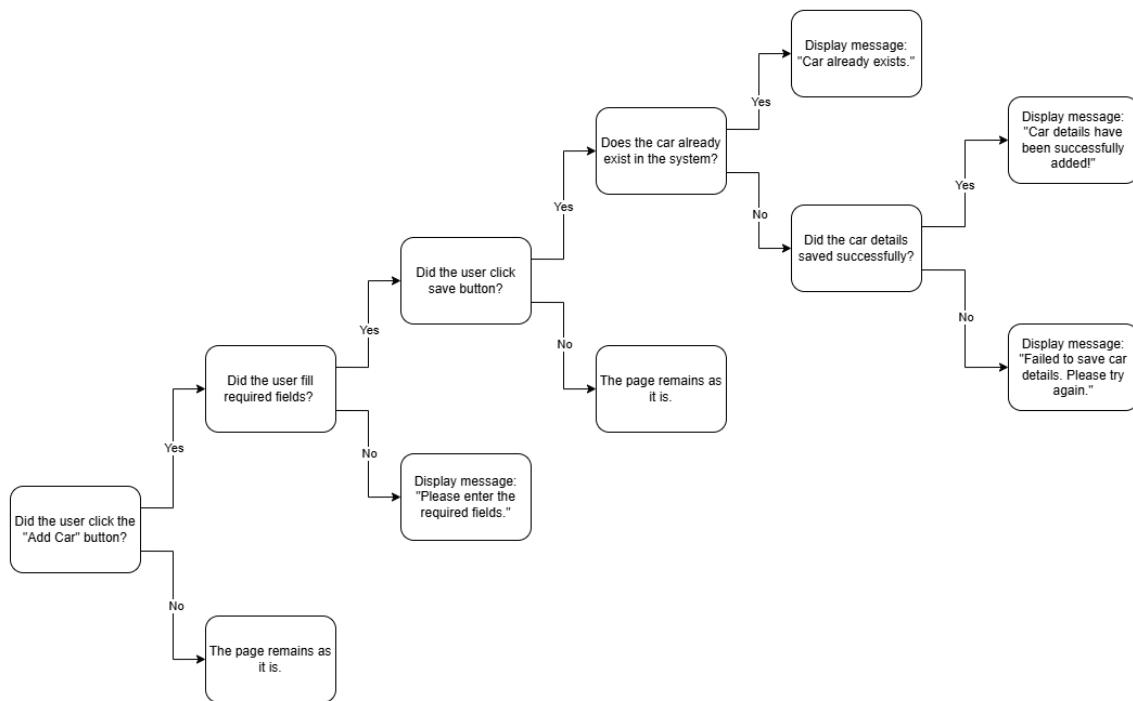


Print Invoice:

When a user wants to print invoice details, they first select a invoice from the list. If the printing process is successful, the details are printed, and if the printing process fails, an error message is shown to notify the user of the failure.

2.3.8 Cars Management – Logic Of Processes

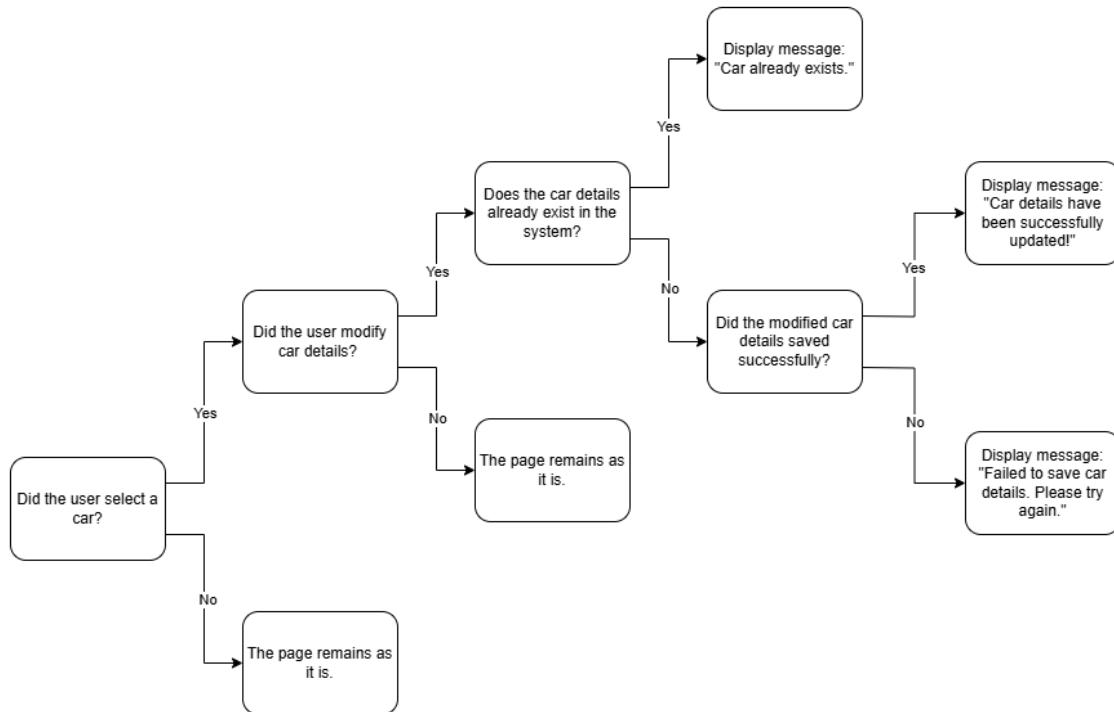
2.3.8.1 Add Car - Logic Of Processes



Add Car:

When a user wants to add a car, they first click the "Add Car" button, which opens a form for entering car details. The user fills in the necessary information, ensuring required fields are completed. After clicking "Save," the system checks for duplicate entries based. If a duplicate is found, a message is displayed, informing the user that the car already exists. If no duplicate is detected, the system attempts to save the car details. If the save operation fails, an error message appears, prompting the user to try again. If the save operation is successful, a confirmation message is displayed, notifying the user that the car has been successfully added.

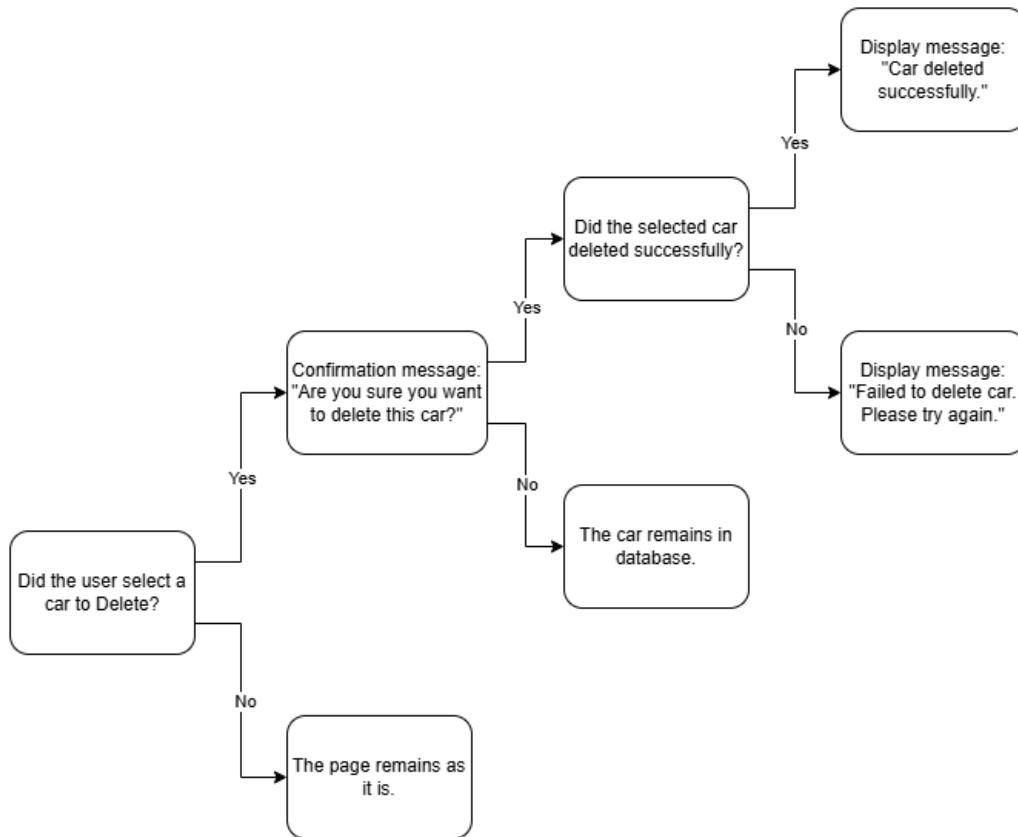
2.3.8.2 Edit Car - Logic Of Processes



Edit Car:

When a user wants to edit a car, they first select it from the list. The user modifies the necessary fields and clicks the "Save" button. The system verifies if the details changed already exist to prevent duplicates. If no duplicates are found, the system updates the car data in the database. If the update is successful, the system displays a success message confirming the changes. If it fails, an error message is shown, prompting the user to retry the update.

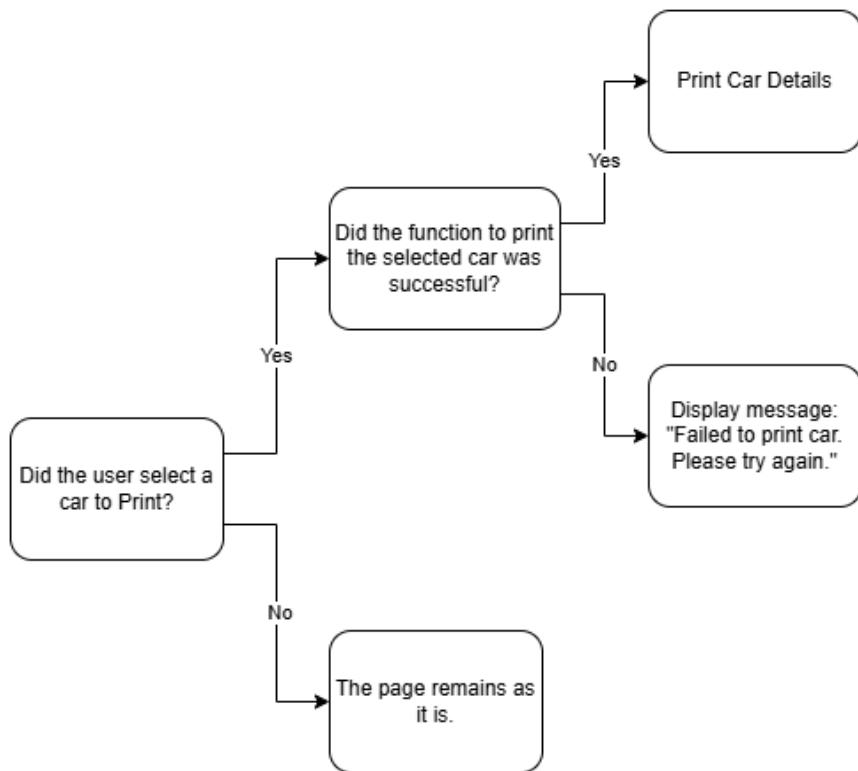
2.3.8.3 Delete Car - Logic Of Processes



Delete Car:

When a user wants to delete a car, they first select it from the list. The system then prompts the user for confirmation before proceeding. If the user confirms, the system attempts to remove the car data from the database. If the deletion is successful, a success message is displayed, confirming the removal. If the process fails, an error message informs the user that the car could not be deleted.

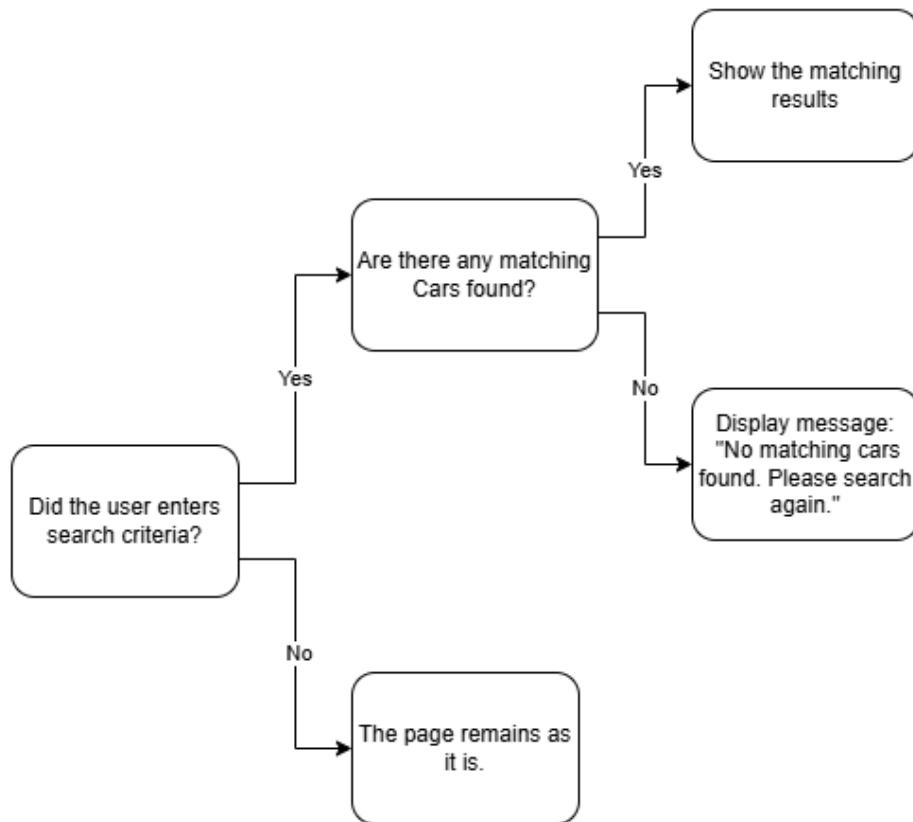
2.3.8.4 Print Car - Logic Of Processes



Print Car:

When a user wants to print car details, they first select a car from the list. If the printing process is successful, the details are printed, and if the printing process fails, an error message is shown to notify the user of the failure.

2.3.8.5 Search Car - Logic Of Processes



Search Car:

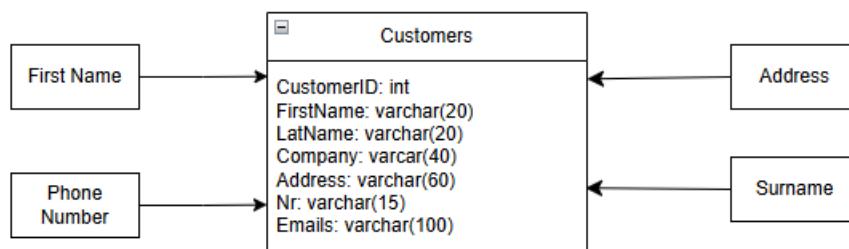
When a user searches for a car, they enter specific search criteria and if matching results are found, they are displayed to the user. If no records match the criteria, the system displays a message informing the user that no results were found, prompting them to search again.

2.4 Data Stores

2.4.1 Customers Database

Data Item	Data Type	Description
Customer ID	Integer	Unique identifier for each customer.
First Name	Varchar (20)	First Name of the customer.
Surname	Varchar (20)	Surname of the customer.
Company Name	Varchar (40)	Name of the company of the customer (if exist).

A customer can be searched by First Name, Surname, Phone Number or Address:



2.4.2 Phone Numbers Database

Data Item	Data Type	Description
Customer ID	Integer	Unique identifier for each customer.
Phone Numbers	Varchar (15)	The Customer's phone number.

2.4.3 Emails Database

Data Item	Data Type	Description
Customer ID	Integer	Unique identifier for each customer.
Email	Varchar (100)	The Customer's email.

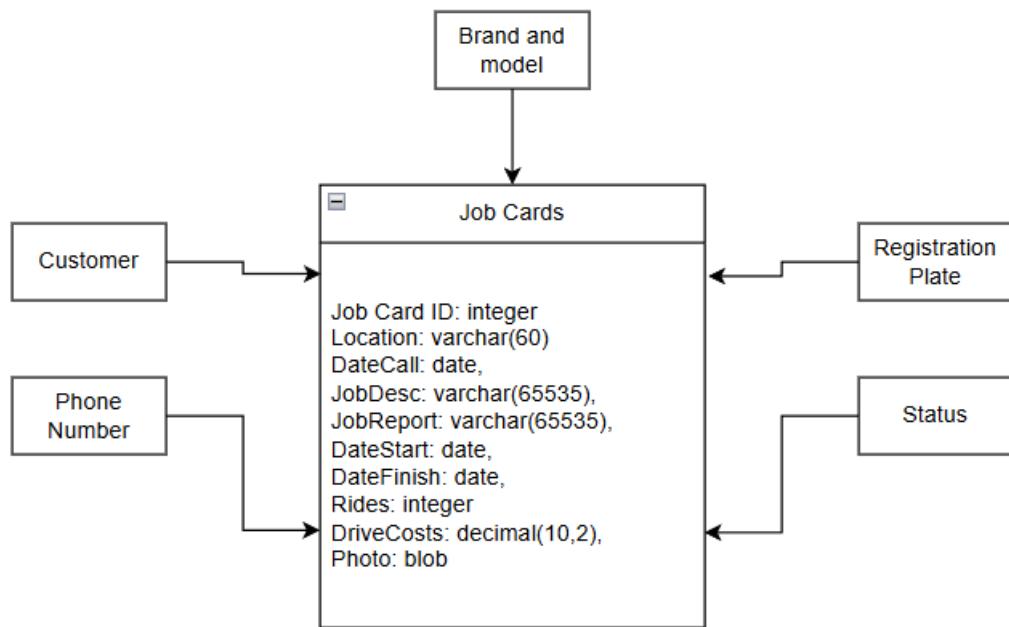
2.4.4 Addresses Database

Data Item	Data Type	Description
Customer ID	Integer	Unique identifier for each customer.
Address	Varchar (60)	The Customer's physical address.

2.4.5 Job Cards Database

Data Item	Data Type	Description
Job Card ID	Integer	Unique identifier for each job card.
Location of Visit	Varchar (60)	Name of the location of visit
Date of Call	Date	The date when the call was made by the customer.
Job Description by Customer	mediumtext	Description of the job provided by the customer.
Job Report	mediumtext	The final job report detailing the work performed.
Job Start Date	Date	The date the job/service was started.
Job End Date	Date	The date of the job/service was completed.
Rides	Integer	The number of rides or trips made.
Drive Costs	float	The costs associated with driving or transporting the vehicle.
Photo	blob	Photos

A Job Card can be searched Customer, Phone, Car Brand and Model, Registration Plate, Status:



2.4.6 Job Car Database

Data Item	Data Type	Description
Job Card ID	Integer	Unique identifier for each job card.
LicenseNr	Varchar (10)	The license number of the car worked on.

2.4.7 Invoice Job Database

Data Item	Data Type	Description
Job Card ID	Integer	Unique identifier for each job card.
Invoice ID	Integer	The invoice of the job.

2.4.8 JobCard Parts Database

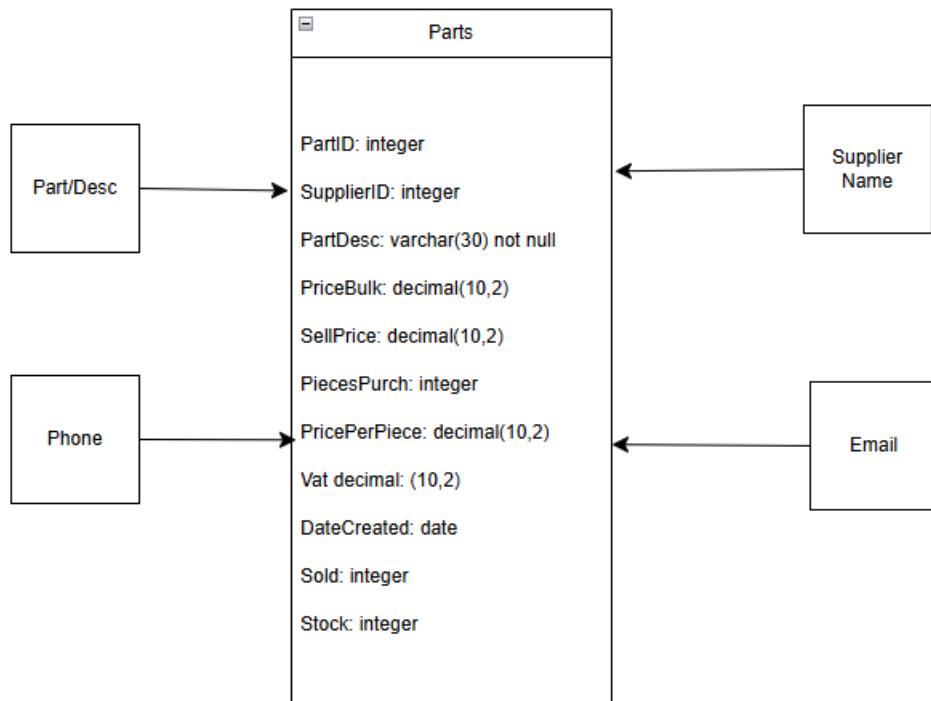
Data Item	Data Type	Description
Job Card ID	Integer	Unique identifier for each job card.
Part ID	Integer	The part used in the job.
Pieces Sold	Integer	How many pieces of this part sold on this job.
Price Per Piece	Decimal (10,2)	Price per piece for this job.

2.4.9 Parts Database

Data Item	Data Type	Description
Part ID	Integer	Unique identifier for each part.
Supplier ID	Integer	Unique identifier for each supplier.
Part Description	varchar (30)	Name or description of the part.
Price Bulk	Decimal(10,2)	Total cost for a bulk purchase.
Selling Price	Decimal(10,2)	Price at which the part is sold.
Pieces Purchased	Integer	Pieces for each purchased
Price per Piece	Decimal(10,2)	Price for each piece

VAT	Decimal(10,2)	VAT
Date Created	Date	Date that bought each part
Pieces Sold	Integer	Number of pieces sold to customers
Pieces in Stock	Integer	Remaining stock of the part.

The administrator can view a part details by searching for his Part Name,Supplier Name, Phone and Email.

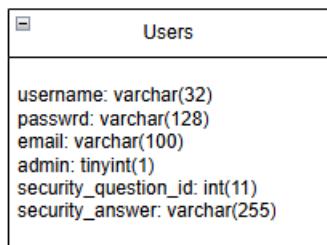


2.4.10 Parts Supply Database

Data Item	Data Type	Description
InvoicelD	Integer	Unique identifier for each invoice.
PartID	Integer	Part ID purchased in this invoice.

2.4.11 Users Database

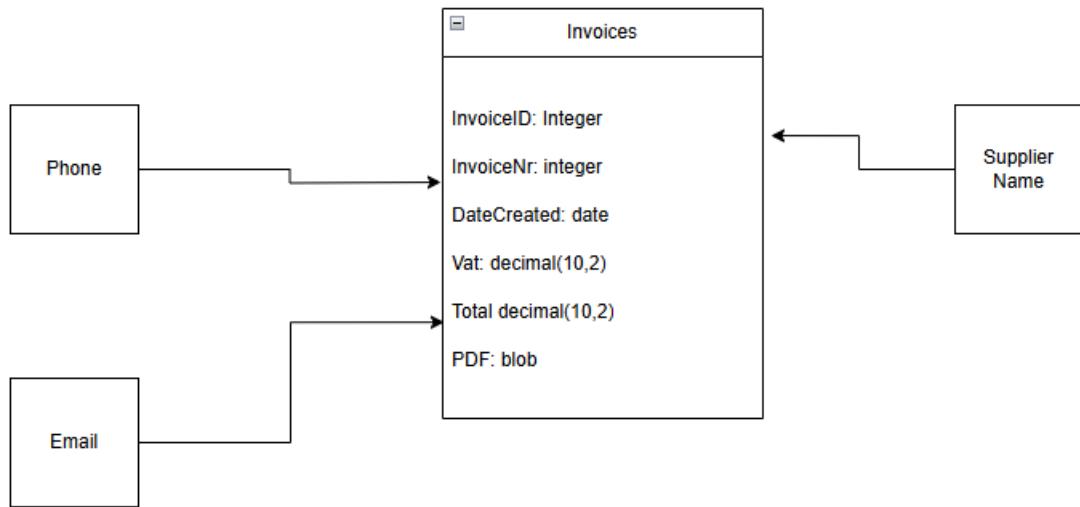
Data Item	Data Type	Description
Username	varchar (32)	Unique name for each user.
Email	varchar (100)	Users e-mail address.
Password	varchar(128)	Users' password.
Admin	Tinyint(1)	Check if user is an admin or not.
security_question_id	Integer	The security question id.
security_answer	varchar(255)	The security question answer.



2.4.12 Invoices Database

Data Item	Data Type	Description
Invoice Number	Integer	A unique identifier for each invoice.
Invoice ID	Integer	A unique identifier for each invoice.
Date Created	date	The date when the invoice was created.
VAT	decimal(10,2)	The Value Added Tax (VAT) applied to the invoice.
Invoice Total Price	decimal(10,2)	The total price of all purchased items.
PDF	blob	PDF file

The administrator can view invoices information by searching for Supplier Name, Phone and Email

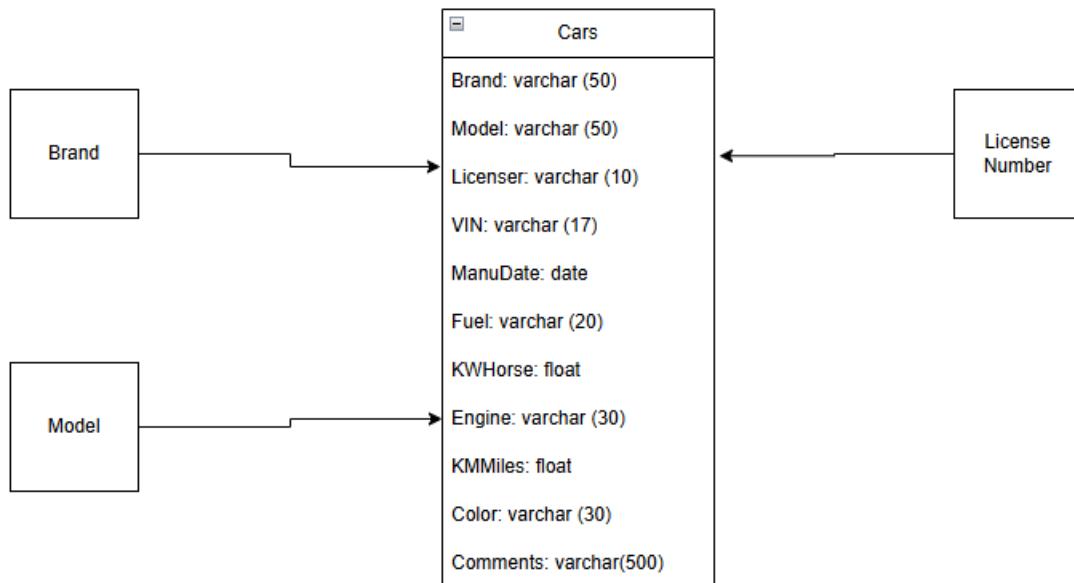


2.4.13 Cars Database

Data Item	Data Type	Description
Brand	varchar (50)	The manufacturer or brand of the car.
Model	varchar (50)	The specific model of the car.
License Number	varchar (10)	The unique license plate number assigned to the car.
VIN	varchar (17)	Vehicle Identification Number, a unique code for each vehicle.
Manufacture Date	date	The date when the car was manufactured.
Fuel Type	varchar (20)	The type of fuel the car uses.
Kw/Horsepower	float	The engine power output measured in kilowatts (kW) or horsepower (HP).
Engine Type	varchar (30)	The type of engine.
Km/Miles	Float	The total distance traveled by the car,

		kilometers or miles.
Color	varchar (30)	The exterior color of the car.
Comments	Varchar (500)	Additional notes about the car.

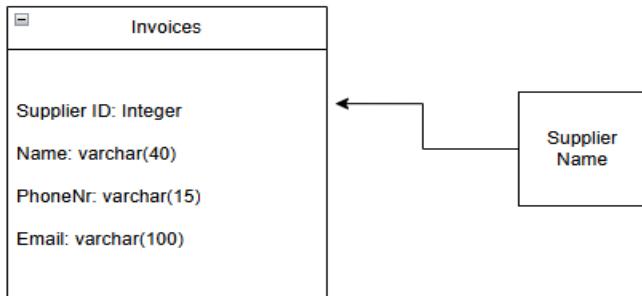
The administrator can view cars information by searching for Brand, Model, License Number



2.4.14 Suppliers Database

Data Item	Data Type	Description
SupplierID	Integer	Unique identifier for each Supplier.
Name	varchar (40)	Name of the supplier.
PhoneNr	varchar (15)	The phone number of the supplier.
Email	varchar(100)	The Email address of the customer.

The administrator can view a users information by searching for his Name.



2.4.15 Car Association Database

Data Item	Data Type	Description
Customer ID	Integer	Unique identifier for each Invoice.
LicenseNr	Varchar (10)	The license number of the car worked on.

2.4.16 Parts Supplier Database

Data Item	Data Type	Description
PartID	Integer	Part ID purchased in this invoice.
SupplierID	Integer	Unique identifier for each Supplier.

2.4.17 Password reset Database

Data Item	Data Type	Description
ID	Integer	Unique identifier for each password.
User_id	Varchar(255)	Unique identifier for each user.
Token	Varchar(64)	Unique identifier for each token
Expiry	datetime	Expiration date and time of the token.
Used	tinyint(1)	Indicates whether the token has been used (1/0)
created_at	timestamp	Date and time the token was created.

2.4.18 Security Question Database

Data Item	Data Type	Description
ID	Integer	Unique identifier for each password.
question	Varchar(255)	The security question text.

2.5 Physical Resources

2.5.1 Customers Database

File Name: Customer Database

Storage Medium: Database Management System

Records:

- CustomerID
- FirstName
- Surname

- Company

2.5.2 Phone Numbers Database

File Name: Phone Numbers Database

Storage Medium: Database Management System

Records:

- CustomerID
- Nr

2.5.3 Emails Database

File Name: Emails Database

Storage Medium: Database Management System

Records:

- CustomerID
- Email

2.5.4 Addresses Database

File Name: Addresses Database

Storage Medium: Database Management System

Records:

- CustomerID
- Address

2.5.5 Job Cards Database

File Name: Job Cards Database

Storage Medium: Database Management System

Records:

- JobID
- Location
- DateCall
- JobDesc
- JobReport
- DateStart
- DateFinish
- Rides
- DriveCosts
- Photos

2.5.6 Job Car Database

File Name: Job Car Database

Storage Medium: Database Management System

Records:

- JobID
- LicenseNr

2.5.7 Invoice Job Database

File Name: Invoice Job Database

Storage Medium: Database Management System

Records:

- JobID
- InvoicelD

2.5.8 JobCard Parts Database

File Name: JobCard Parts Database

Storage Medium: Database Management System

Records:

- JobID
- PartID
- PiecesSold
- PricePerPiece

2.5.9 Parts Database

File Name: Parts Database

Storage Medium: Database Management System

Records:

- PartID
- SupplierID
- PartDesc
- PriceBulk
- SellPrice
- PiecesPurch
- PricePerPiece
- Vat
- DateCreated
- Sold
- Stock

2.5.10 Parts Supply Database

File Name: Parts Supply Database

Storage Medium: Database Management System

Records:

- InvoiceID
- PartID

2.5.11 Users Database

File Name: User Database

Storage Medium: Database Management System

Records:

- Username
- Email
- Password
- Admin
- security_question_id
- security_answer

2.5.12 Invoices Database

File Name: Invoices Database

Storage Medium: Database Management System

Records:

- Invoice Number
- Invoice ID
- Date Created
- VAT
- Invoice Total Price
- PDF

2.5.13 Cars Database

File Name: Cars Database

Storage Medium: Database Management System

Records:

- Brand
- Model
- LicenseNr
- VIN
- ManuDate
- Fuel
- KWHorse
- Engine
- KMMiles
- Color
- Comments

2.5.14 Suppliers Database

File Name: Suppliers Database

Storage Medium: Database Management System

Records:

- SupplierID
- Name
- PhoneNr
- Email

2.5.15 Car Association Database

File Name: Car Association Database

Storage Medium: Database Management System

Records:

- Customer ID
- LicenseNr

2.5.16 Parts Supplier Database

File Name: Part Supplier Database

Storage Medium: Database Management System

Records:

- PartID
- SupplierID

2.5.17 Password reset Database

File Name: Password reset Database

Storage Medium: Database Management System

Records:

- ID
- User_id
- Token
- Expiry
- Used
- created_at

2.5.18 Security Question Database

File Name: Security Question Database

Storage Medium: Database Management System

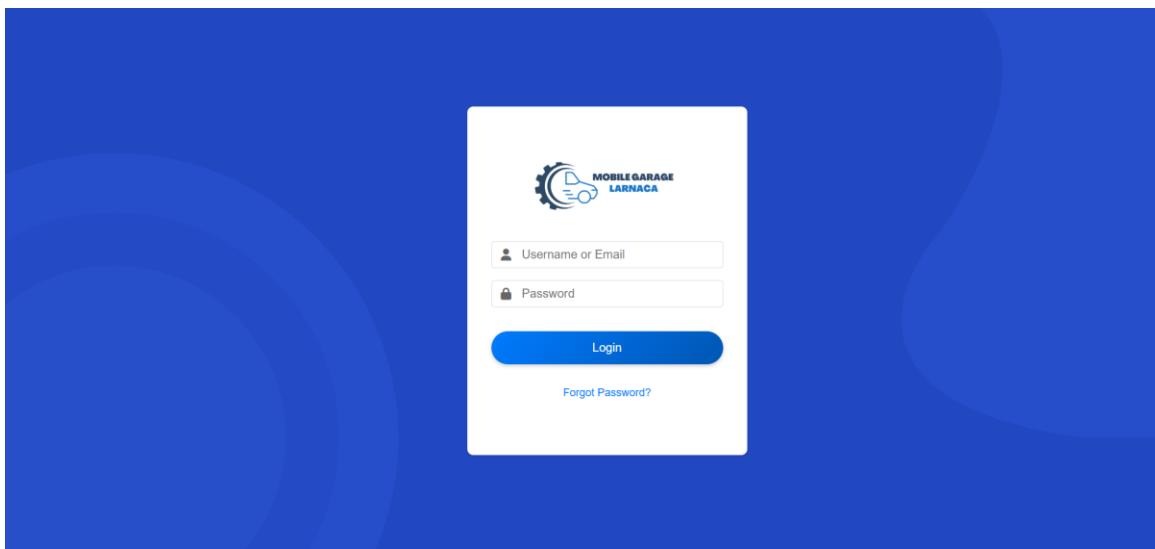
Records:

- ID
- question

2.6 Input/Output Specifications

2.6.1 User Login

To log into the system the user needs to fill out these fields:



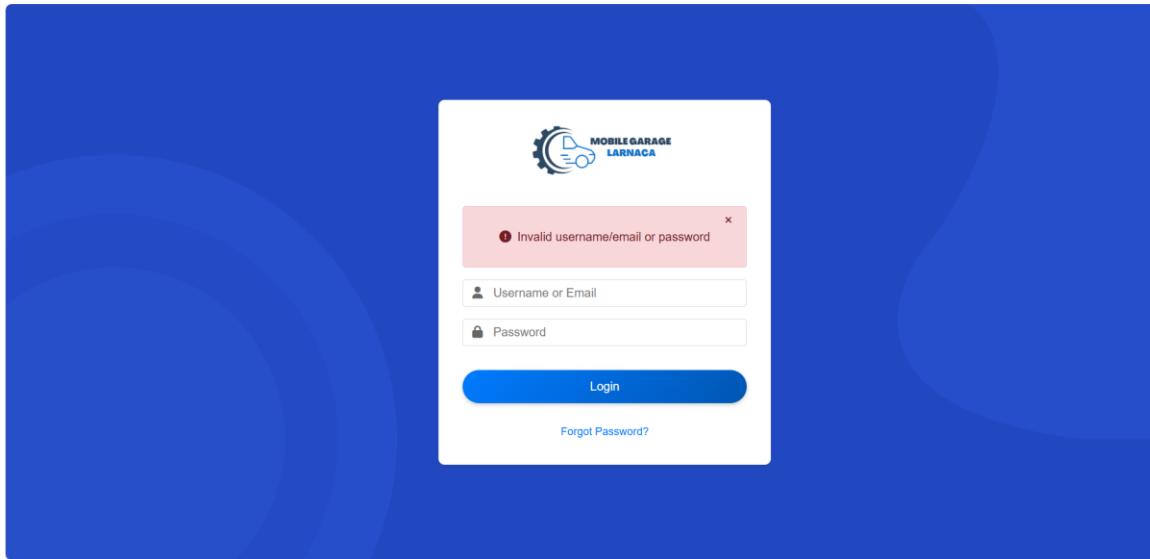
Input

- Username, Text Field
- Password, Text Field

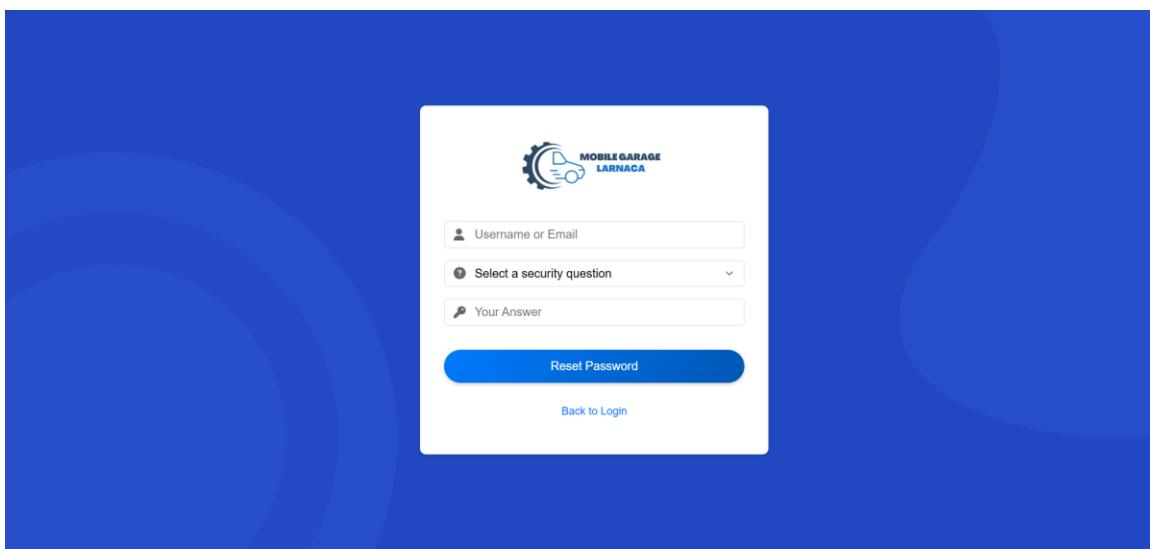
Output

After logging in, the system grants the user access and displays the dashboard.

Other Scenario: The user has either left some fields incomplete or entered incorrect information.



2.6.2 Reset Password



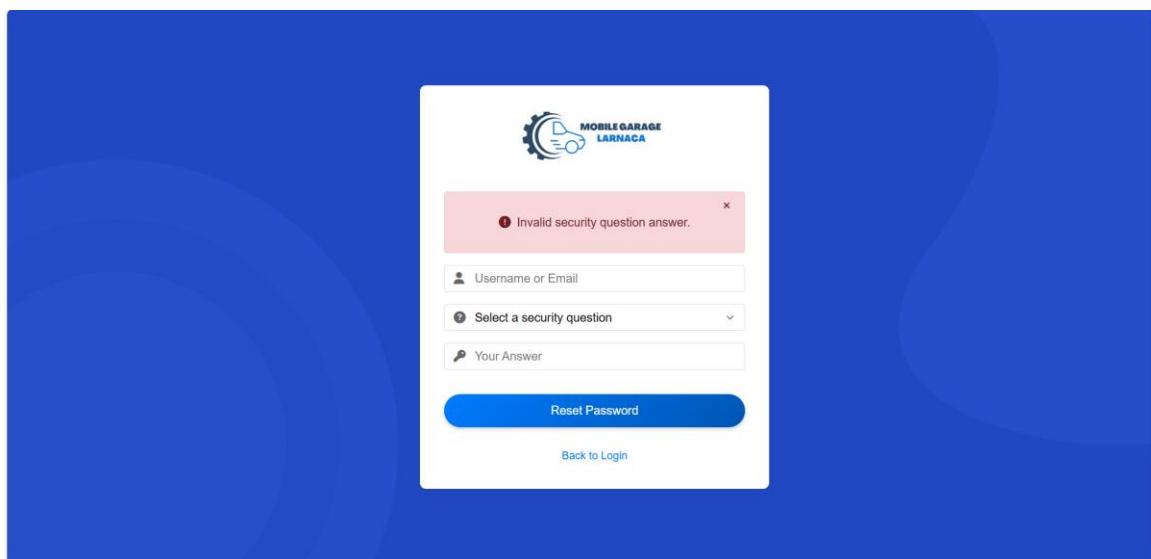
Input

- Username or Email, Text Field
- Security Question, Text field with Drop Down
- Security Question Answer, Text Field

Output

After press reset password, the system redirects the user to this page.

Other Scenario: The user entered a non-valid security question.



2.6.3 New Customer Information

This function is to input a new customer's information including his car/cars.

First Name *

Surname *

Company Name

Address *

+

Phone Number *

+

Email Address

+

Cars*

Add Car +

Save

≡ Q Search here...

Add New Car x

Brand *

Model *

License Plate *

Vehicle Identification Number (VIN) *

Manufacture Date *

dd/mm/yyyy

Fuel Type *

Kw/Horsepower

Engine Type *

Km/Miles *

Color *

Comments

Cancel
Add Car

Input

- First Name, Text Field
- Surname, Text Field
- Company Name, Text Field
- Address, Text Field (Multiple can be added)
- Phone Number, Text Field (Multiple can be added)

- E-mail address, Text Field (Multiple can be added)
- Brand, Text Field
- Model, Text Field
- License Plate, Text Field
- VIN, Text Field
- Manufacture Date, Text Field
- Fuel Type, Text Field
- Horsepower, Text Field
- Engine Type, Text Field
- Km/Miles, Text Field
- Colour, Text Field
- Comments, Text Field

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the Dashboard.

The screenshot shows a mobile application interface for adding a customer. At the top, there is a navigation bar with a back arrow and the title "Add Customer". Below the title, a green success message box displays a checkmark icon and the text "Customer added successfully". The main form area contains several input fields: "First Name *" with the value "Antreas", "Surname *" with the value "Papadopoulos", "Company Name" with the value "UCLAN", "Address *" with the value "Agia Fila", "Phone Number *" with the value "99123456", and "Email Address" with the value "test_email@gmail.com". There are also sections for "Cars*" and a "Save" button at the bottom.

Other Scenario: Not all required fields have been filled out.

The screenshot shows the 'Add Customer' form. The 'First Name *' field is highlighted in blue, indicating it is required. A tooltip message 'Please fill out this field.' appears above the 'Company Name' field. The 'Address *' field has a blue plus sign icon to its right. The 'Email Address' field also has a blue plus sign icon to its right. The 'Save' button at the bottom is blue.

2.6.4 New Part Information

This function is to input a new parts information into the database.

The screenshot shows the 'Add Parts' form. It includes sections for 'Supplier Details *' and 'Part Details *'. In the 'Supplier Details' section, the 'Supplier Name *' field is highlighted in blue, and a note 'Either phone or email is required' is displayed below the 'Supplier Phone *' and 'Supplier Email *' fields. In the 'Part Details' section, the 'Part/Description *' field is highlighted in blue. Other fields include 'Pieces Purchased *', 'Date Created *' (with a date picker icon), 'Price Per Piece *', 'Selling Price *', 'VAT (%) *', and 'Price Bulk (total)'. The 'Save' button at the bottom is blue.

Input

- Part/Description, Text Field
- Supplier Details(Supplier Name,Phone,Email), Text Fields

- Pieces Purchased, Text Field
- Date Created, Date Field
- Price per Piece, Text Field
- Price Bulk, Text Field(View-only)
- VAT, Text Field
- Selling Price, Text Field

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the Dashboard.

The screenshot shows a mobile application interface titled "Add Parts". At the top, there is a green success message: "Part added successfully". Below this, there are two sections: "Supplier Details *" and "Part Details *". In the "Supplier Details" section, fields include "Supplier Name *" (Antonela), "Supplier Phone *" (99112233), and "Supplier Email *" (test_email@gmail.com). In the "Part Details" section, fields include "Part/Description *" (Air Filter), "Pieces Purchased *" (20), "Date Created *" (10/04/2025), "Price Per Piece *" (25), "Selling Price *" (35), "VAT (%) *" (19), and "Price Bulk (total)" (595.00). A blue "Save" button is located at the bottom right of the form.

Other Scenario: Not all required fields have been filled out.

The screenshot shows the 'Add Parts' form with several required fields highlighted in red and marked with error messages:

- Supplier Details *** section:
 - Supplier Name *: A red box surrounds the input field, and a tooltip says "Please fill out this field."
 - Supplier Phone *: A red box surrounds the input field, and a tooltip says "Either phone or email is required".
 - Supplier Email *: A red box surrounds the input field, and a tooltip says "Either phone or email is required".
- Part Details** section:
 - Part/Description *: A red box surrounds the input field, and a tooltip says "Please fill out this field."
 - Pieces Purchased *: A red box surrounds the input field.
 - Date Created *: A red box surrounds the input field.
- Price Per Piece ***: A red box surrounds the input field.
- Selling Price ***: A red box surrounds the input field.
- VAT (%) ***: A red box surrounds the input field.
- Price Bulk (total)**: A red box surrounds the input field.

A blue 'Save' button is at the bottom right.

2.6.5 New Job Card Information

This function is to create new Job cards and save them in the database.

The screenshot shows the 'Job Card' form with the following fields:

- Customer ***: A dropdown menu labeled "Select Car Brand and Model".
- Phone**: A text input field.
- Car Brand and Model ***: A dropdown menu labeled "Select Car Brand and Model".
- Location of Visit ***: A text input field.
- Registration Plate**: A text input field.
- Job Description by Customer ***: A text input field.
- Date of Call ***, **Job Start Date ***, **Job End Date**: Three date input fields with "dd/mm/yyyy" placeholder text.
- Rides**: A text input field.
- Job Report**: A large text area.
- Drive Costs**: A text input field.
- Parts Used/Replaced**: A dropdown menu labeled "Search part..." with a "1" button and a "Price" button.
- Add Part**: A blue button.
- Photos of damage**: A file upload section with "Choose File" and "No file chosen".
- Add Photos**: A blue button.
- Total Costs**: A text input field containing "0.00".

A blue 'Save' button is at the bottom right.

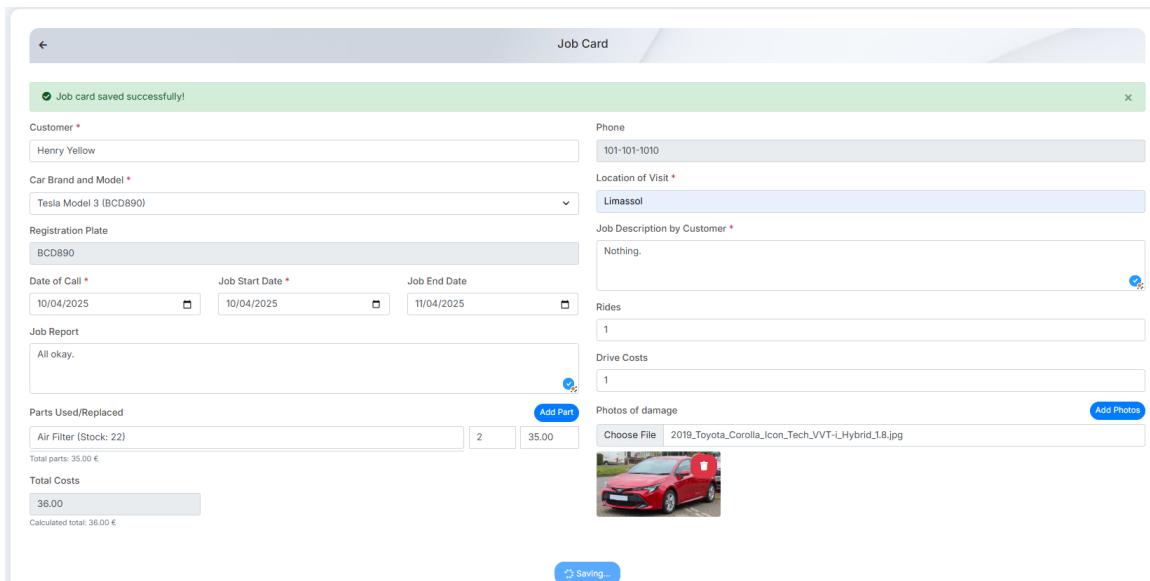
Input

- Customer, Text field with drop down menu
- Phone, Text field(View-Only)

- Registration Plate, Text field(View-only)
- Location of Visit, Text field
- Date of Call, Date field
- Job Description by Customer, Text field
- Job Report, Text field
- Job Start Date, Date field
- Job End Date, Date field
- Rides, Text field
- Car Brand and Model, Text field with Drop Down
- Drive Costs, Text field
- Parts Used, Text field with drop down menu (can add multiple parts)
- Price for each Part, Text field
- Photos of Damage, File Upload(can add multiple photos)
- Total Costs

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the Dashboard.



The screenshot shows a 'Job Card' form with the following details:

- Customer:** Henry Yellow
- Phone:** 101-101-1010
- Car Brand and Model:** Tesla Model 3 (BCD890)
- Location of Visit:** Limassol
- Registration Plate:** BCD890
- Date of Call:** 10/04/2025
- Job Start Date:** 10/04/2025
- Job End Date:** 11/04/2025
- Job Description by Customer:** Nothing.
- Rides:** 1
- Job Report:** All okay.
- Drive Costs:** 1
- Parts Used/Replaced:** Air Filter (Stock: 22) - 2 units at 35.00 each
- Total Costs:** 36.00
- Photos of damage:** Choose File: 2019_Toyota_Corolla_Icon_Tech_VVT-i_Hybrid_1.8.jpg - A thumbnail of a red Toyota Corolla car is shown.

A green success message at the top left says: "Job card saved successfully!"

A progress bar at the bottom center says: "Saving..."

Other Scenario: There are no other scenarios if the system functions properly since no fields are mandatory.

The screenshot shows the 'Job Card' form. It includes fields for Customer (John Doe), Phone (111-111-1111), Car Brand and Model (dropdown menu 'Select Car Brand and Model' with an error message 'Please select an item in the list.'), Registration Plate (text input), Location of Visit (text input), Date of Call, Job Start Date, and Job End Date (all three are date pickers). There are also fields for Job Description by Customer, Rides, Drive Costs, and Photos of damage (with a 'Choose File' button). A 'Parts Used/Replaced' section with a search bar and a 'Save' button at the bottom right.

2.6.6 Extra Expenses (Accounting)

A function to add extra expenses to the database so that they can be calculated into the monthly and yearly expenses.

The screenshot shows the 'Add Extra Expense' form. It has fields for Description (text input with placeholder 'Enter a description for the expense (max 50 characters)'), Date Created (date input with value '18/04/2025'), and Expense Amount (text input with placeholder 'Enter the expense amount (e.g., 25.50)'). A 'Save' button is located at the bottom right.

Input

- Description, Text Field
- Date Created, Date
- Expense Amount, Text Field

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the Dashboard.

Other Scenario: Not all required fields have been filled out.

The screenshot shows a form titled "Add Extra Expense". The "Description *" field is empty, and a validation message "Please fill in this field." is displayed above it. The "Date Created *" field contains the value "18/04/2025". The "Expense Amount *" field has a dollar sign (\$) prefix and is empty, with the placeholder "Enter the expense amount (e.g., 25.50)". A "Save" button is at the bottom.

2.6.7 Add an Invoice into the System

To add a new invoice and the bought parts into the databases.

The screenshot shows a form titled "Add Invoice". It requires filling in "Invoice Number *", "Supplier Name *", "Supplier Phone *", "Supplier Email *", "VAT (%) *", and "Invoice Total Price *". There is a "Parts *" section with a "Add Part +" button. A "Save" button is at the bottom.

A screenshot of a mobile application showing a modal dialog titled "Add New Part". The dialog contains four text input fields with asterisks indicating required fields: "Part/Description *", "Pieces Purchased *", "Price Per Piece *", and "Selling Price *". Below the inputs are two buttons: "Cancel" (gray) and "Save Part" (blue).

Input

- Invoice Number, Text Filed
 - Date Created, Text Filed
 - Supplier Name, Text Filed
 - Supplier Phone, Text Filed
 - Supplier E-mail, Text Filed
 - VAT, Text Filed
 - Invoice Total Price, Text Filed
-
- Part/Description, Text Filed
 - Pieces Purchased, Text Filed
 - Price per Piece, Text Filed
 - Selling Price, Text Filed

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the Dashboard.

Invoice added successfully

Invoice Number *	Date Created *	
123456	10/04/2025	
Supplier Name *	Supplier Phone *	Supplier Email *
Stavros	99112266	test_email@gmail.com
VAT (%) *	Invoice Total Price *	
13	100	
Parts *		
Oil Pieces: 10 Price: €5 Sell: €10		
Add Part +		
Save		

Other Scenario: Not all required fields have been filled out.

Please fill out this field.

Invoice Number *	Date Created *	
	dd/mm/yyyy	
Supplier Name *	Supplier Phone *	Supplier Email *
VAT (%) *	Invoice Total Price *	
Parts *		
Add Part +		
Save		

2.6.8 Add New User

An administrator can create a new user in the system using this method.

The screenshot shows a 'User Management' form. At the top left is a back arrow icon. The title 'User Management' is centered at the top. Below the title are two input fields: 'Username' and 'Password'. To the right of the 'Password' field is a blue button labeled 'Generate Random Password'. Underneath these are 'Security Question' and 'Security Answer' fields. The 'Security Question' field contains a dropdown menu with the placeholder 'Select a security question'. The 'Security Answer' field is a text input. Below these are 'Email' and 'Admin' fields. The 'Email' field is a text input, and the 'Admin' field is a dropdown menu with options 'Admin' and 'No'. At the bottom center is a blue 'Save' button with a small icon.

Input

- Username, Text Field
- Password, Text Field
- Security Question, Text field with Drop Down
- Security Answer, Text field
- Email, Text field
- Admin, Yes or No with Drop Down

Output

By pressing save on the previous screen this confirmation pops up and the user may return to the User Management.



Other Scenario: Not all required fields have been filled out.

The screenshot shows the same 'User Management' form as above, but with validation errors. The 'Username' field has a red border and a tooltip 'Please fill out this field.' The 'Save' button is disabled. The rest of the form appears identical to the first screenshot.

2.7 Sizing

2.7.1 Customers Database

Column Name	Date type	Size (bytes)
CustomerID	Integer	4
FirstName	Varchar (20)	20
Surname	Varchar (20)	20
Company	Varchar (40)	40

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	84 Bytes	42 KB	420KB

2.7.2 Phone Numbers Database

Column Name	Date type	Size (bytes)
CustomerID	Integer	4
Number	Varchar (15)	15

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	19 Bytes	9.5 KB	95 KB

2.7.3 Emails Database

Column Name	Date type	Size (bytes)
CustomerID	Integer	4
Email	Varchar (100)	100

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	104 Bytes	52 KB	520 KB

2.7.4 Addresses Database

Column Name	Date type	Size (bytes)
CustomerID	Integer	4
Address	Varchar (60)	60

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	64 Bytes	32 KB	320 KB

2.7.5 Job Cards Database

Column Name	Date type	Size (bytes)
Job Card ID	Integer	4
Location of Visit	Varchar (60)	60
Date of Call	Date	3
Job Description by Customer	String	65,535
Job Report	String	65,535
Job Start Date	Date	3
Job End Date	Date	3
Rides	Integer	4
Drive Costs	Float	4
Photo	Blob	1,000,000

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	1.08 MB	539 MB	5.27 GB

2.7.6 Job Car Database

Column Name	Date type	Size (bytes)
JobID	Integer	4
LicenseNr	Varchar (10)	10

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	14 Bytes	7 KB	70 KB

2.7.7 Invoice Job Database

Column Name	Date type	Size (bytes)
Job Card ID	Integer	4
Invoice ID	Integer	4

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	8 Bytes	4 KB	40 KB

2.7.8 Job Cards Parts Database

Column Name	Date type	Size (bytes)
Job Card ID	Integer	4
Part ID	Integer	4
Pieces Sold	Integer	4
Price Per Piece	decimal (10,2)	4

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	16 Bytes	8 KB	80 KB

2.7.9 Parts Database

Column Name	Data Type	Size (bytes)
Part ID	Integer	4

Supplier ID	Integer	30
Part Description	varchar (30)	4
Price Bulk	Decimal(10,2)	4
Selling Price	Decimal(10,2)	4
Pieces Purchased	Integer	4
Price per Piece	Decimal(10,2)	4
VAT	Decimal(10,2)	4
Date Created	Date	3
Pieces Sold	Integer	4
Pieces in Stock	Integer	4

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	69 bytes	34,500 bytes	345,000 bytes

2.7.10 Parts Supply Database

Column Name	Date type	Size (bytes)
InvoicelD	Integer	4
PartID	Integer	4

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	8 bytes	4,000 bytes	40,000 bytes

2.7.11 Users Database

Column Name	Date type	Date type
Username	varchar (32)	32
Email	varchar (100)	100
Password	varchar(128)	128
Admin	Tinyint(1)	1
security_question_id	Integer	4
security_answer	varchar(255)	255

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	520 bytes	253.9 KB	2.48 MB

2.7.12 Invoices Database

Column Name	Date type	Size (bytes)
Invoice Number	Integer	4
Invoice ID	Integer	4
Date Created	date	3
VAT	decimal(10,2)	4

Invoice Total Price	decimal(10,2)	4
PDF	blob	200,000

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	195.3 KB	95.4 MB	0.95 GB

2.7.13 Cars Database

Column Name	Date type	Size (bytes)
Brand	Varchar (10)	10
Model	Varchar (50)	50
License Number	Varchar (50)	50
VIN	Varchar (17)	17
Manufacture Date	Date	3
Fuel Type	Varchar (20)	20
Kw/Horsepower	Float	4
Engine Type	Varchar (30)	30
Km/Miles	Float	4
Color	Varchar (30)	30
Comments	Varchar (500)	500

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	718 Bytes	359 KB	3.6 MB

2.7.14 Suppliers Database

Column Name	Date type	Size (bytes)
SupplierID	Integer	4
Name	varchar (40)	40
PhoneNr	varchar (15)	15
Email	varchar (100)	100

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	159 Bytes	79.5 KB	795 KB

2.7.15 Car Association Database

Column Name	Date type	Size (bytes)
Customer ID	Integer	4
LicenseNr	Varchar (10)	10

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	14 bytes	6.84 KB	68.4 KB
Data Item	Data Type	Description	
PartID	Integer	4	
SupplierID	Integer	4	

2.7.16 Parts Supplier Database

Data Item	Data Type	Description	
PartID	Integer	4	
SupplierID	Integer	4	

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	8 bytes	3.91 KB	39.1 KB
Data Item	Data Type	Description	
ID	Integer	4	
User_id	Varchar(255)	255	
Token	Varchar(64)	64	
Expiry	datetime	3	
Used	tinyint(1)	1	
created_at	timestamp	4	

2.7.17 Password reset Database

Data Item	Data Type	Description	
ID	Integer	4	
User_id	Varchar(255)	255	
Token	Varchar(64)	64	
Expiry	datetime	3	
Used	tinyint(1)	1	
created_at	timestamp	4	

Entry Sizes

	1 Entry	500 Entries	5000 Entries

Size	331 bytes	161.6 KB	1.58 MB
------	-----------	----------	---------

2.7.18 Security Question Database

Data Item	Data Type	Description
ID	Integer	4
question	Varchar(255)	255

Entry Sizes

	1 Entry	500 Entries	5000 Entries
Size	259 bytes	126.5 KB	1.24 MB

2.8 Hardware Requirements

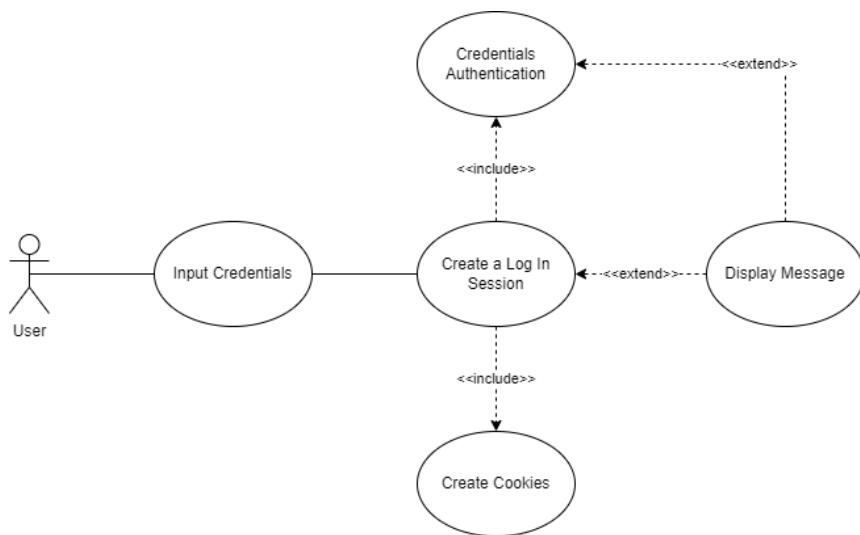
Based on the calculated data for all databases, the hardware requirements and the data size that the system will manage have been determined, as well as potential hardware upgrades or changes in the future, it is evident that no specialized hardware will be necessary. The system will only require the company's personal computer, a server, and a printer. The client will have access to the system at any time from their computer, smartphone, or tablet through their browser, as our system will be web-based. The website will be accessible from any device with an internet connection. To allow users to access the website that will be developed, a server will be needed, which will be located at the client's premises. The server's storage capacity should be at least 50GB to ensure proper data management and future scalability.

3. OBJECT-ORIENTED SYSTEM ANALYSIS

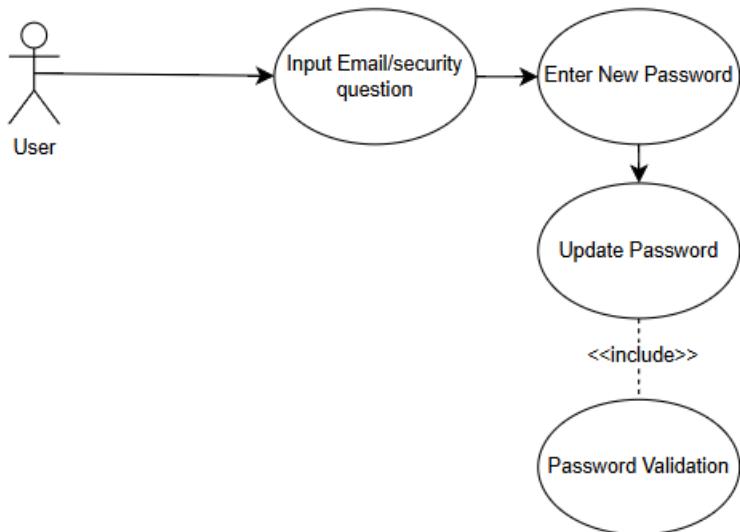
3.1 Use-case Modelling

3.1.1 User Access

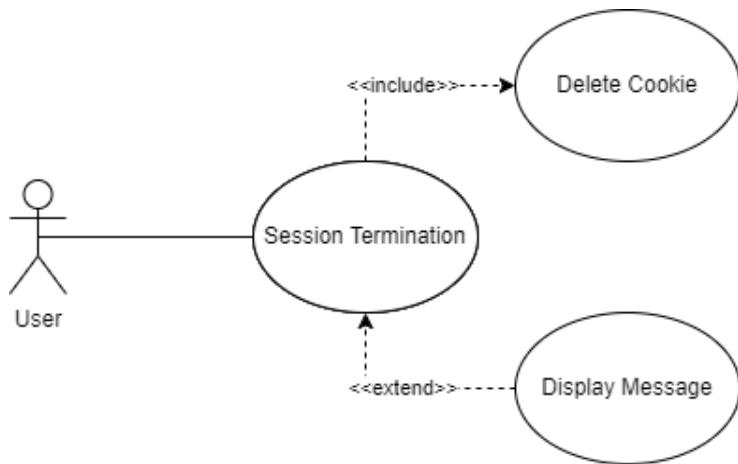
3.1.1.1 Use-case Model 1 – Login



3.1.1.2 Use-case Model 2 – Forgot Password

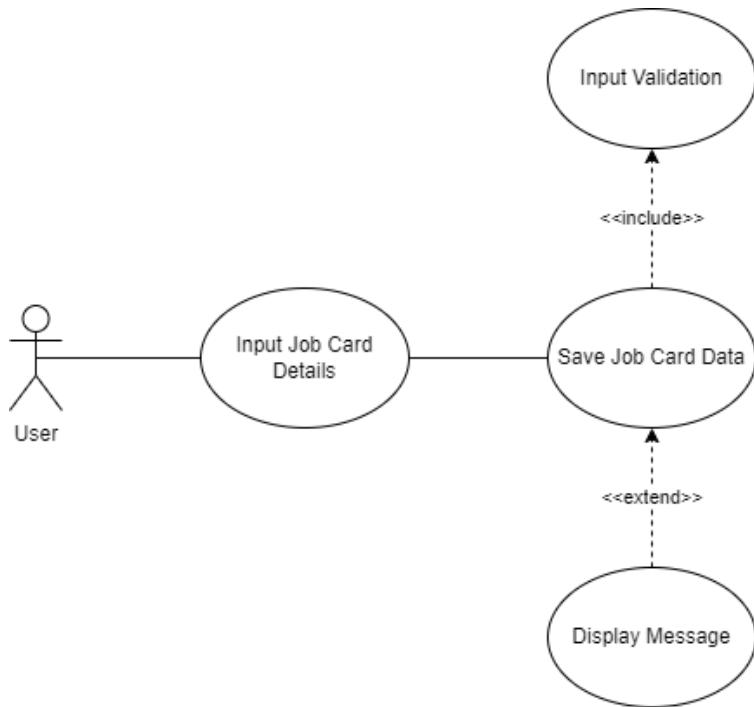


3.1.1.3 Use-case Model 3 – Log Out



3.1.2 Jobs Management

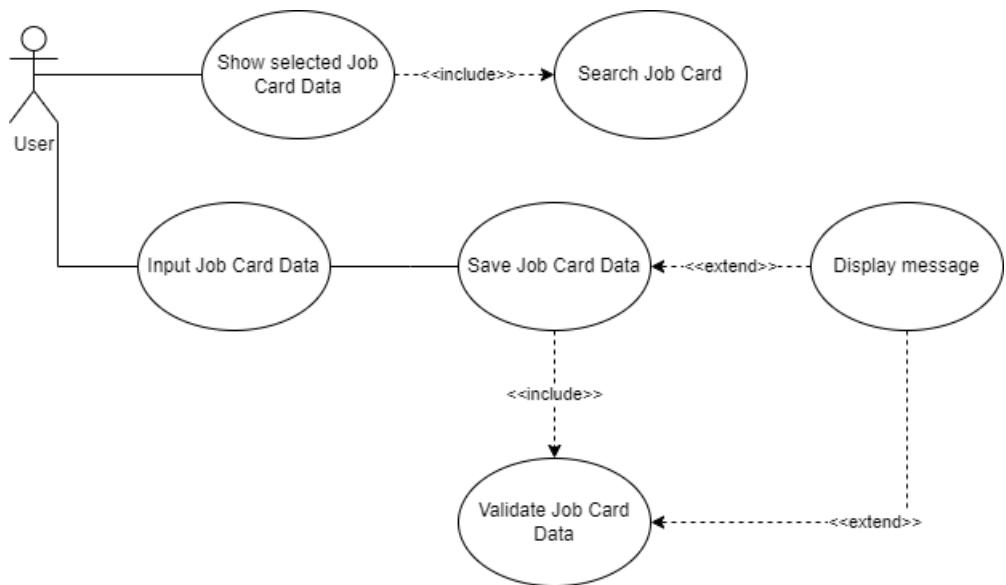
3.1.2.1 Use-case Model 1 - Add a New Job Card



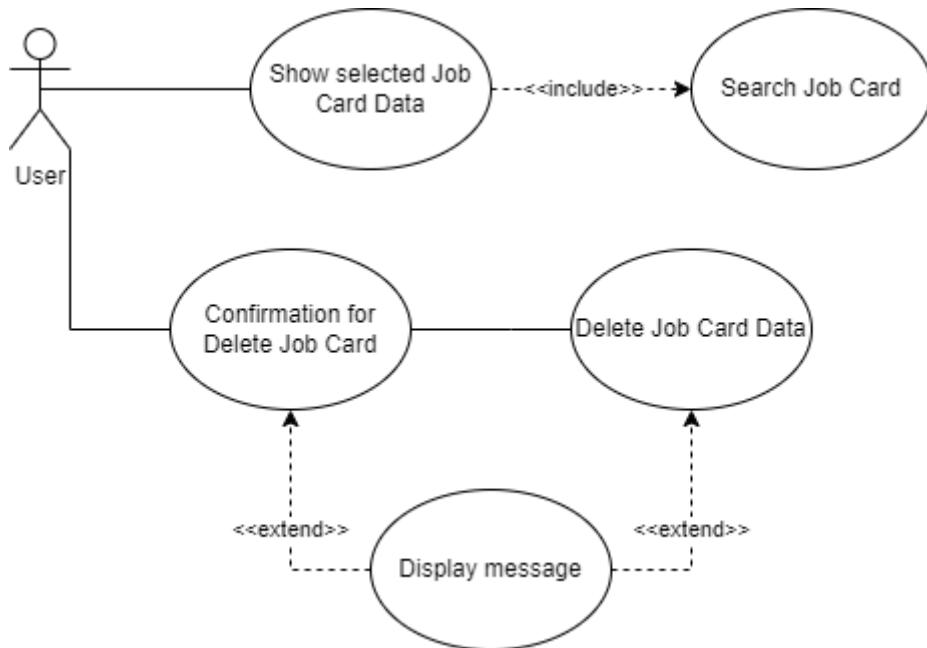
3.1.2.2 Use-case Model 2 - Print Job Card List



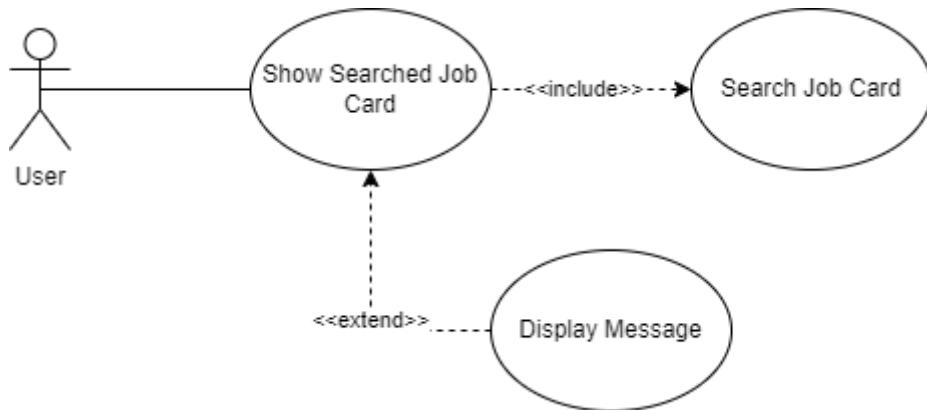
3.1.2.3 Use-case Model 3 - Edit Job Card



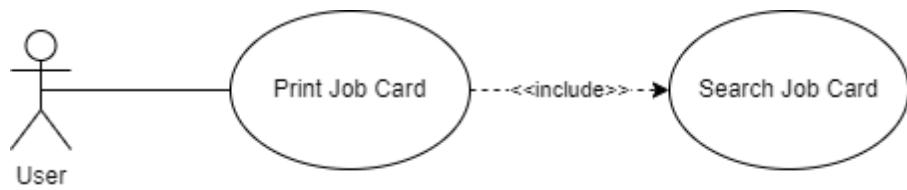
3.1.2.4 Use-case Model 4 - Delete Job Card



3.1.2.5 Use-case Model 5 - Search Job Card

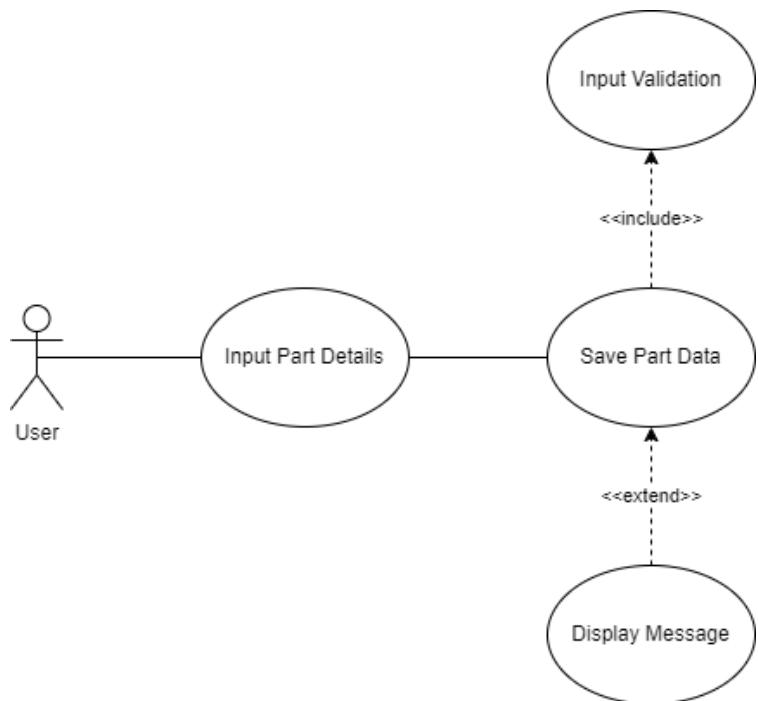


3.1.2.6 Use-case Model 6 - Print Job Card



3.1.3 Parts Management

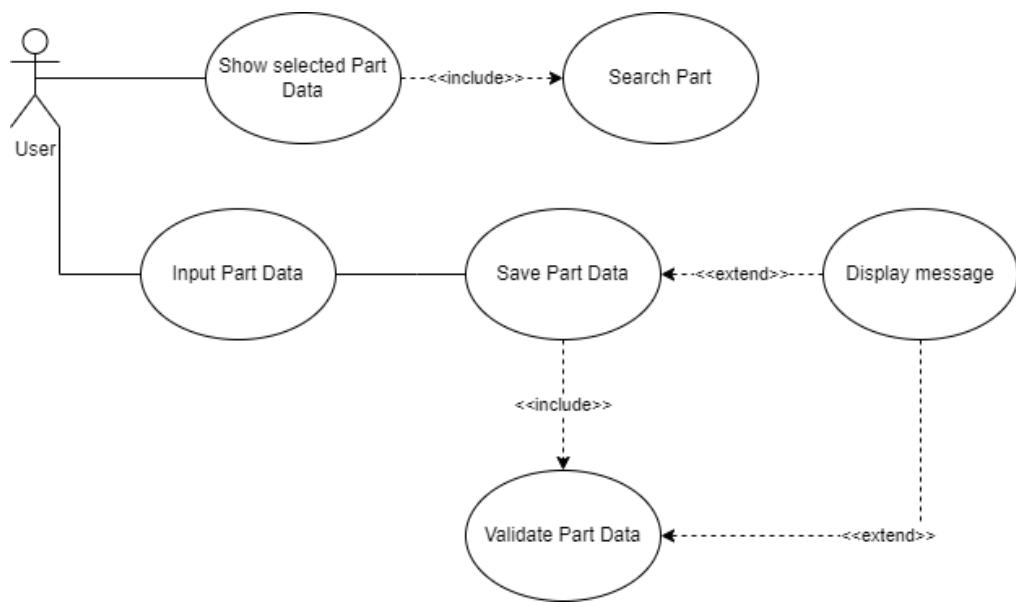
3.1.3.1 Use-case Model 1 - Add New Part



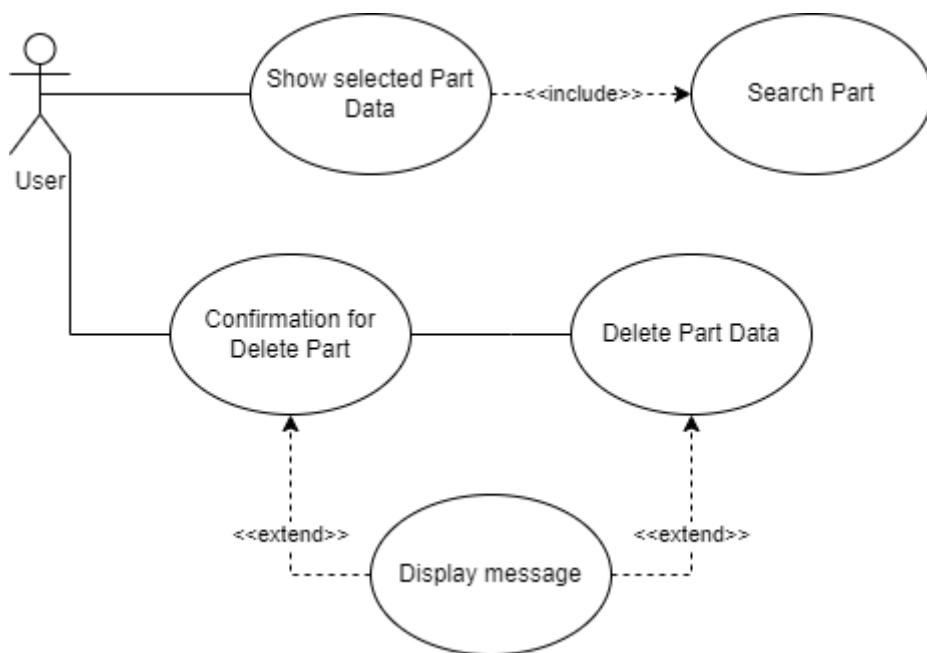
3.1.3.2 Use-case Model 2 - Print Part List



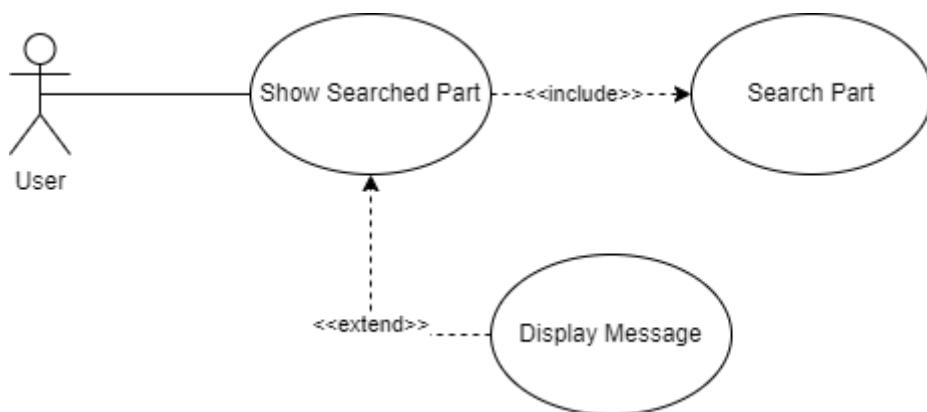
3.1.3.3 Use-case Model 3 - Edit Part



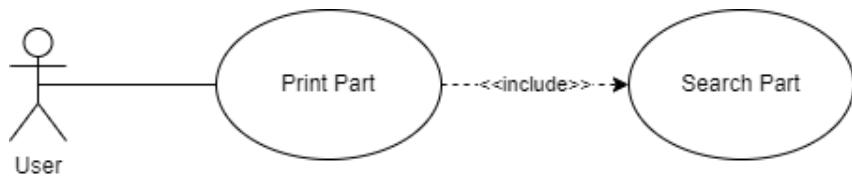
3.1.3.4 Use-case Model 4 - Delete Part



3.1.3.5 Use-case Model 5 - Search Part

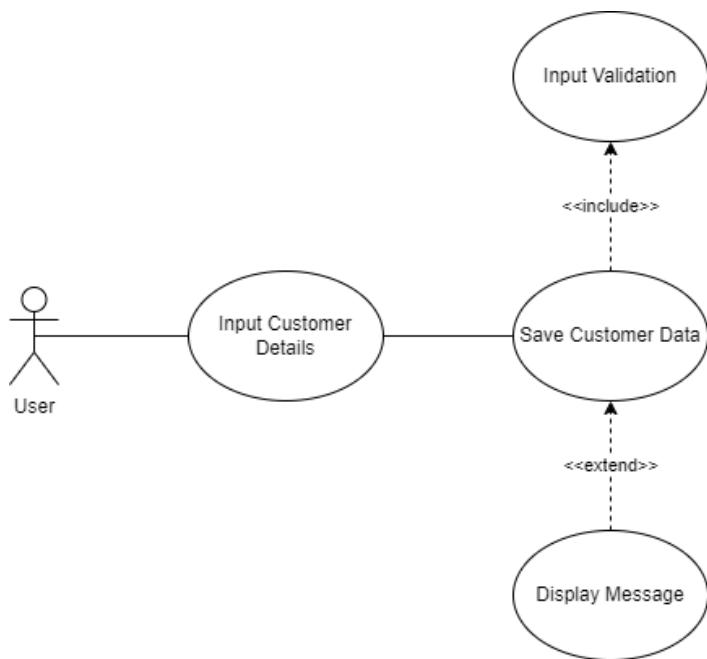


3.1.3.6 Use-case Model 6 - Print Part



3.1.4 Customer Management

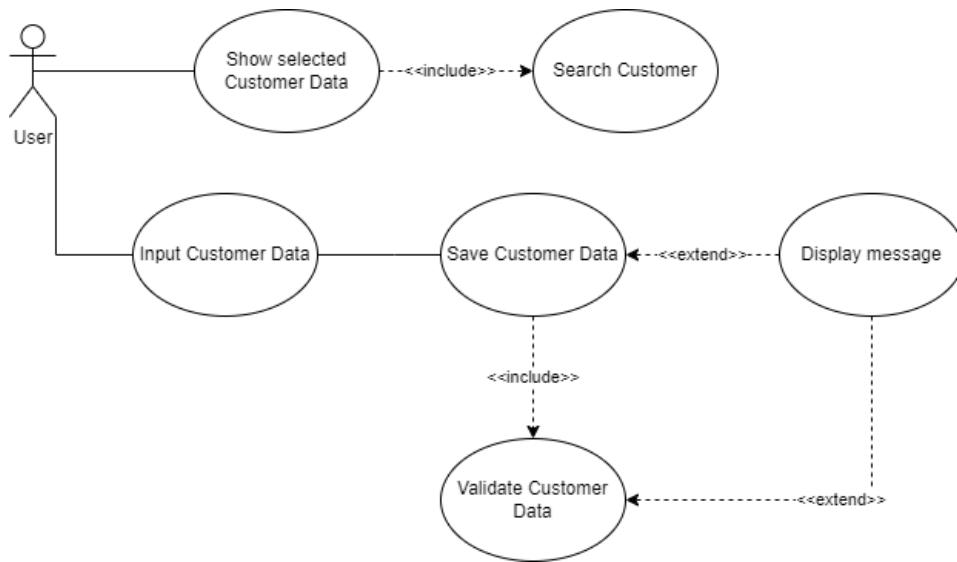
3.1.4.1 Use-case Model 1 - Add New Customer



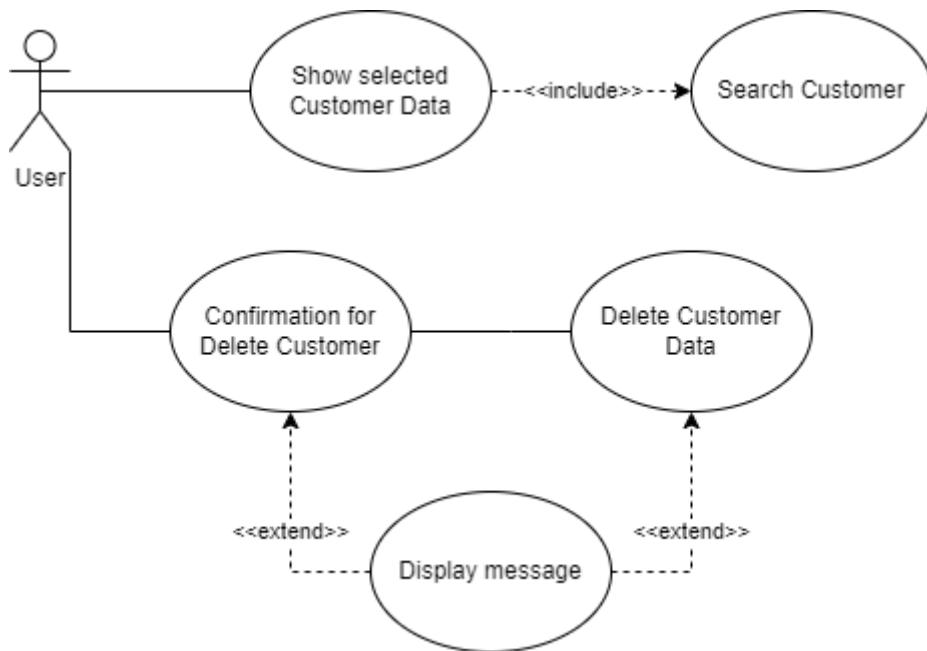
3.1.4.2 Use-case Model 2 – Print Customer List



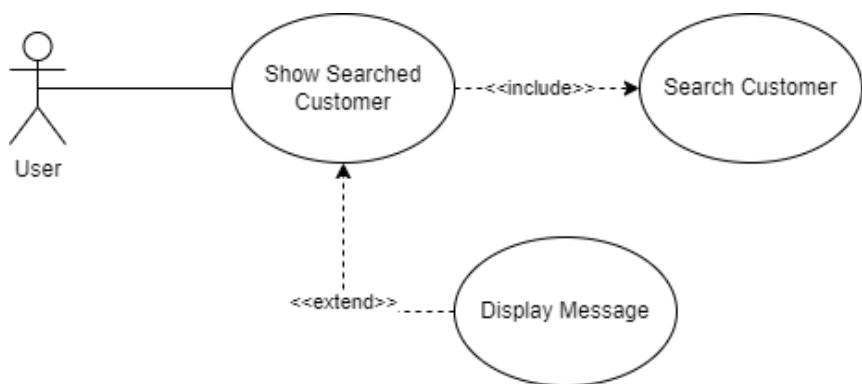
3.1.4.3 Use-case Model 3 – Edit Customer



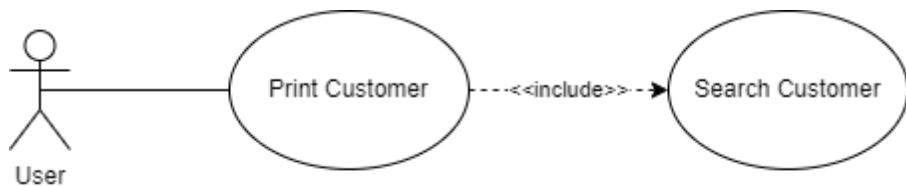
3.1.4.4 Use-case Model 4 - Delete Customer



3.1.4.5 Use-case Model 5 – Search Customer

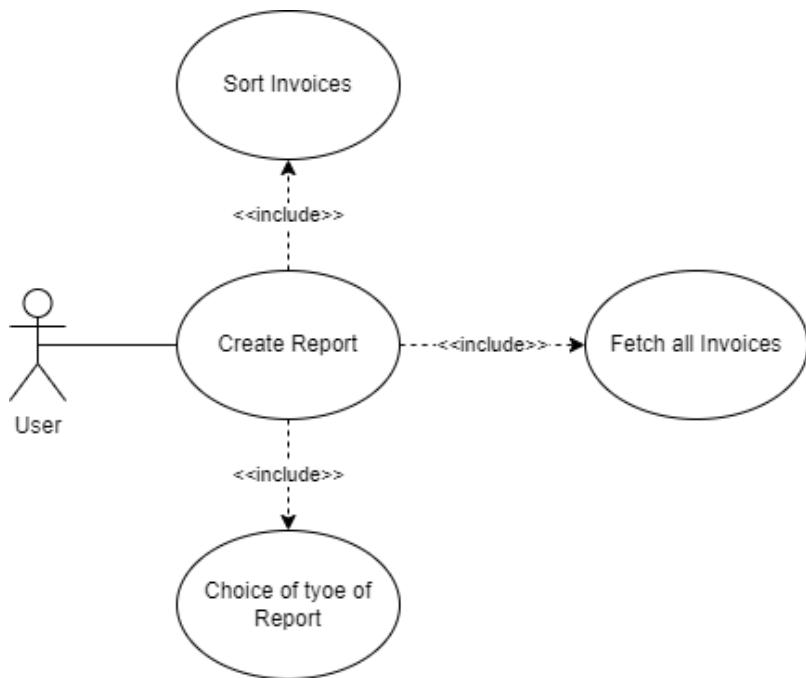


3.1.4.6 Use-case Model 6 – Print Customer

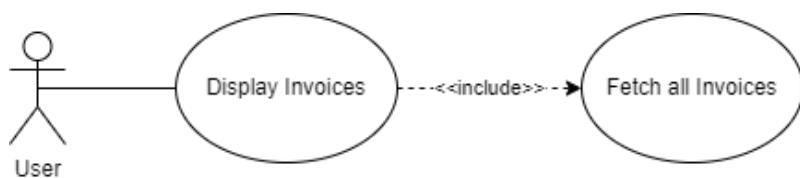


3.1.5 Accounting Management

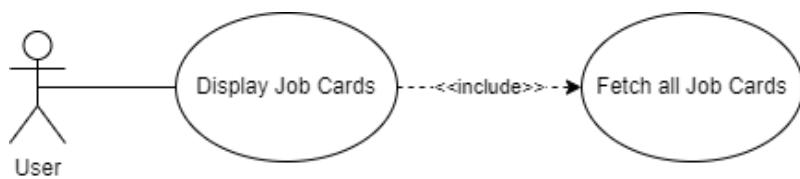
3.1.5.1 Use-case Model 1 – Create Report



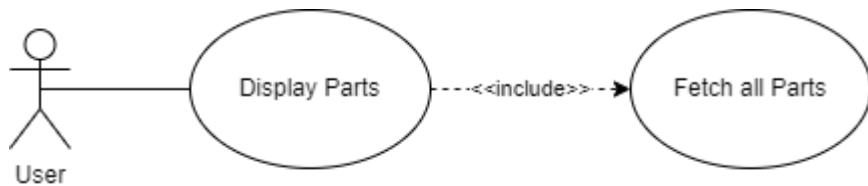
3.1.5.2 Use-case Model 2 – View Invoices



3.1.5.3 Use-case Model 3 – View Job Cards

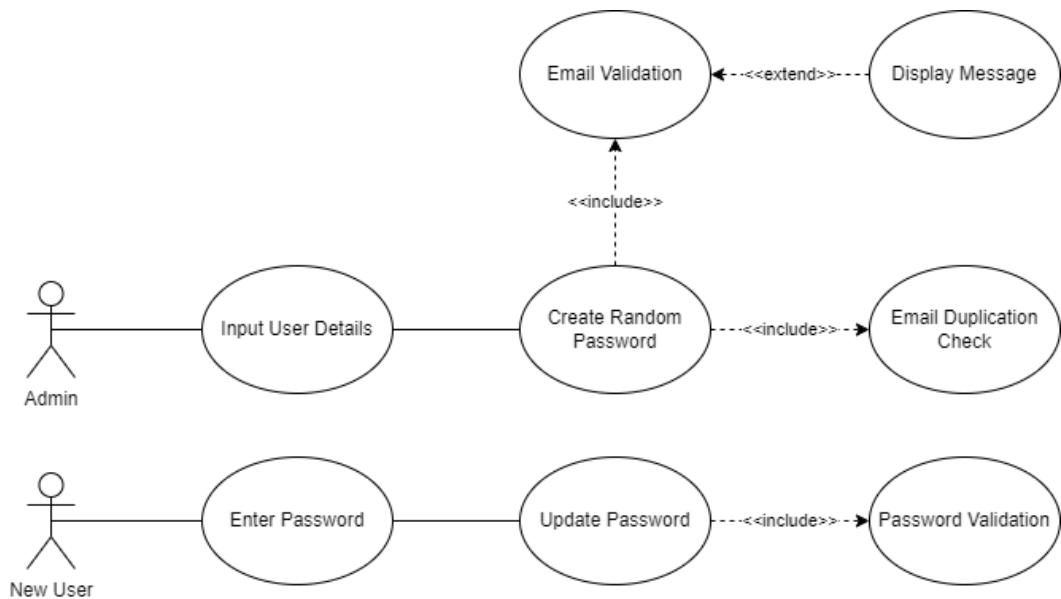


3.1.5.4 Use-case Model 4 – View Parts



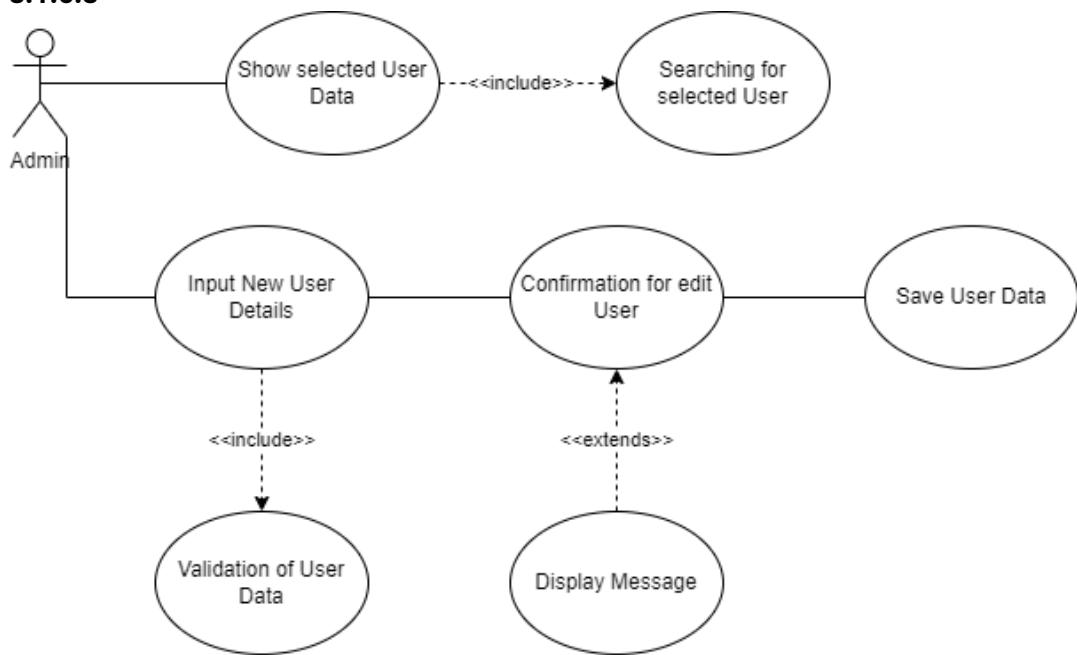
3.1.6 User Management

3.1.6.1 Use-case Model 1 - Add New User

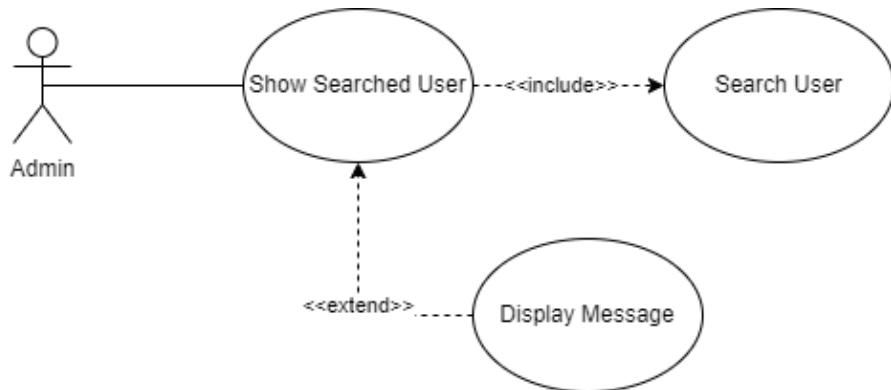


3.1.6.2 Use-case Model 2 - Edit New User

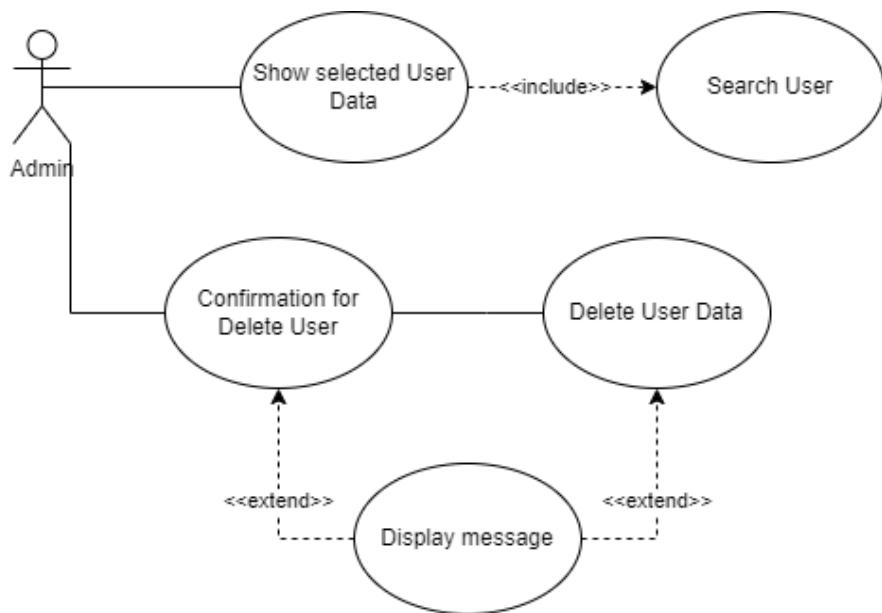
3.1.6.3



3.1.6.4 Use-case Model 3 - Search User

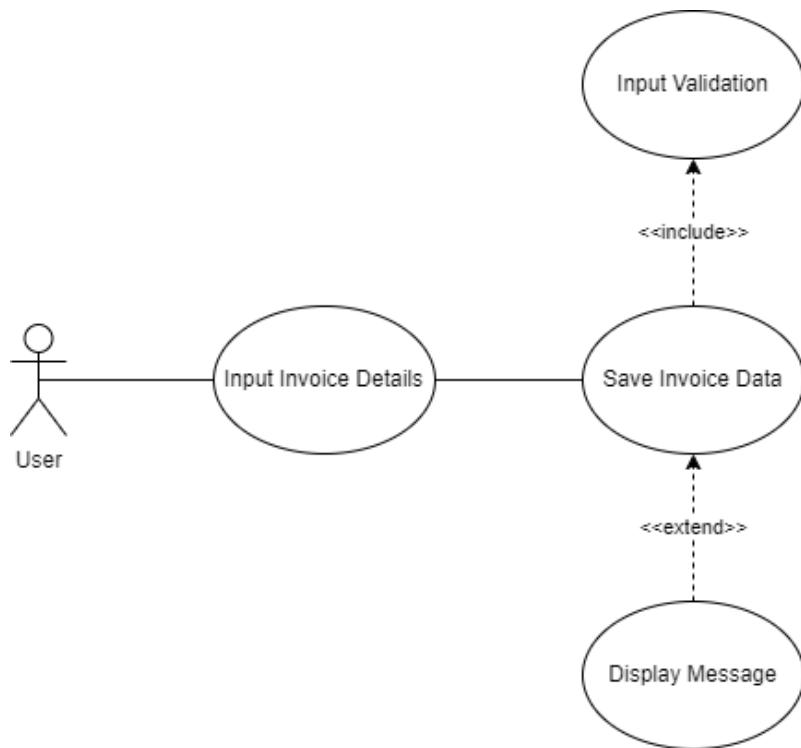


3.1.6.5 Use-case Model 4 - Delete User

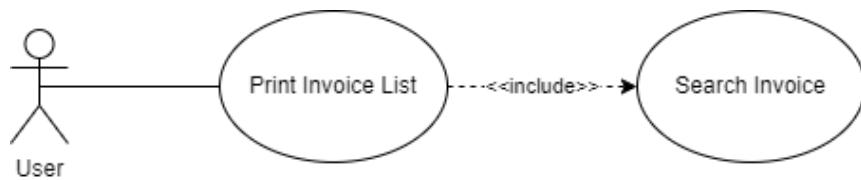


3.1.7 Invoice Management

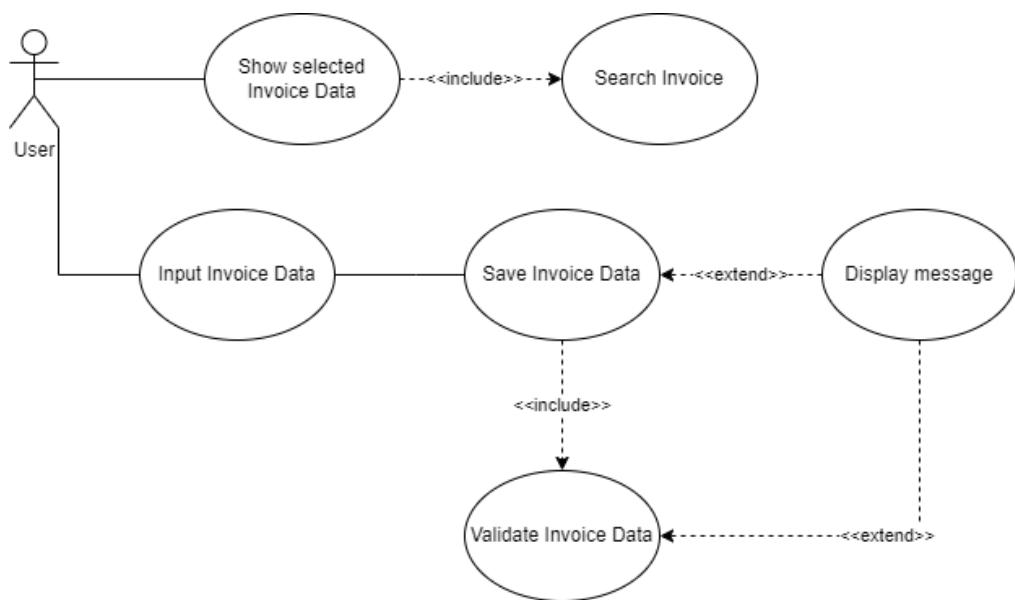
3.1.7.1 Use-case Model 1 – Add New Invoice



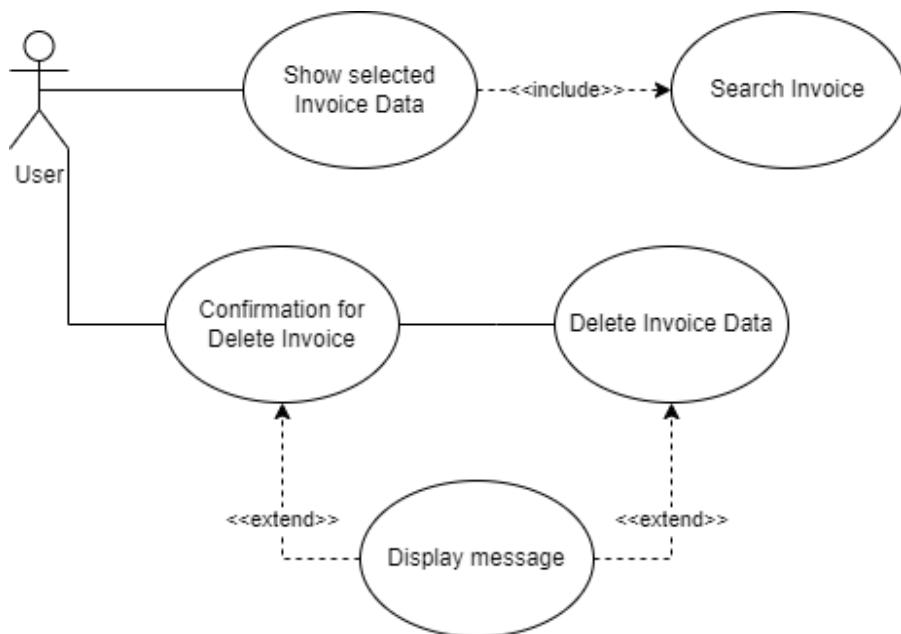
3.1.7.2 Use-Case Model 2 – Print Invoice List



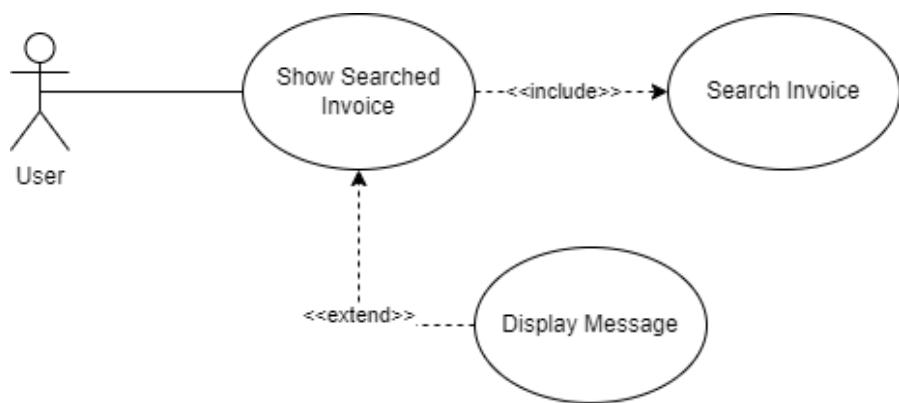
3.1.7.3 Use-case Model 3 – Edit Invoice



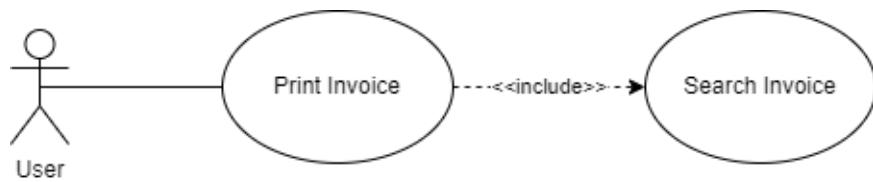
3.1.7.4 Use-case Model 4 – Delete Invoice



3.1.7.5 Use-case Model 5 – Search Invoice

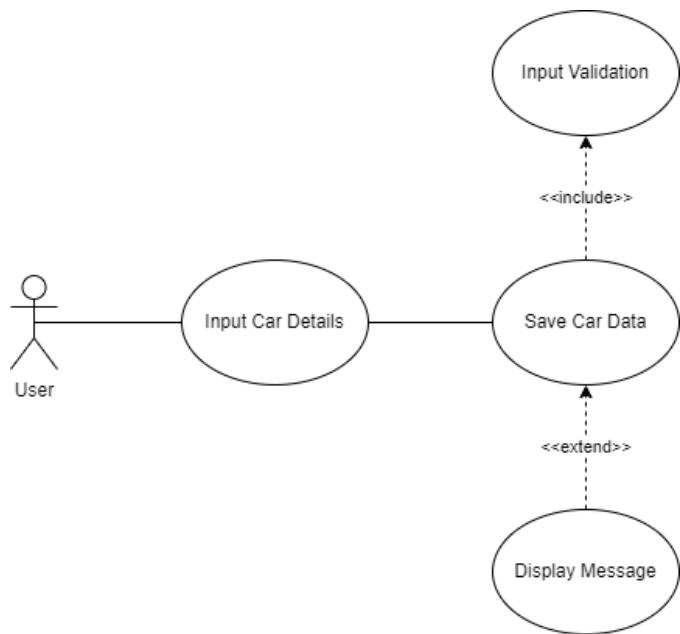


3.1.7.6 Use-case Model 6 – Print Invoice

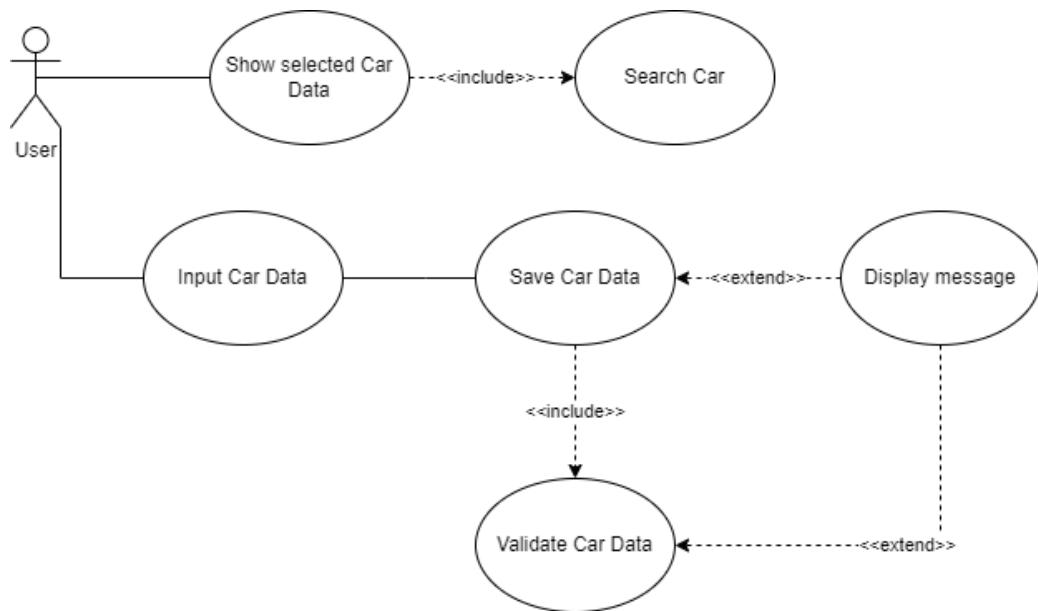


3.1.8 Cars Management

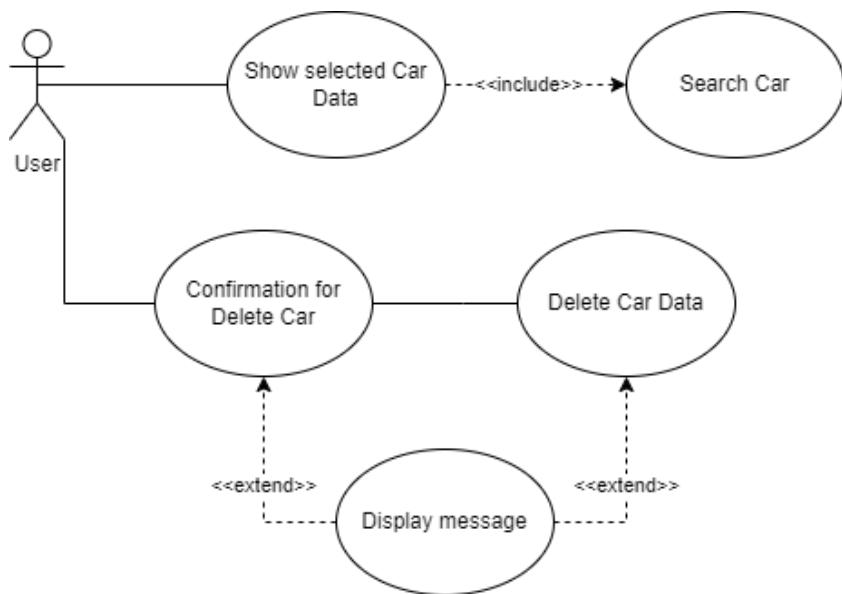
3.1.8.1 Use-case Model 1 - Add Car



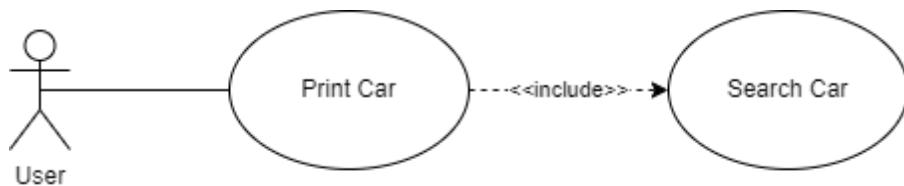
3.1.8.2 Use-case Model 2 - Edit Car



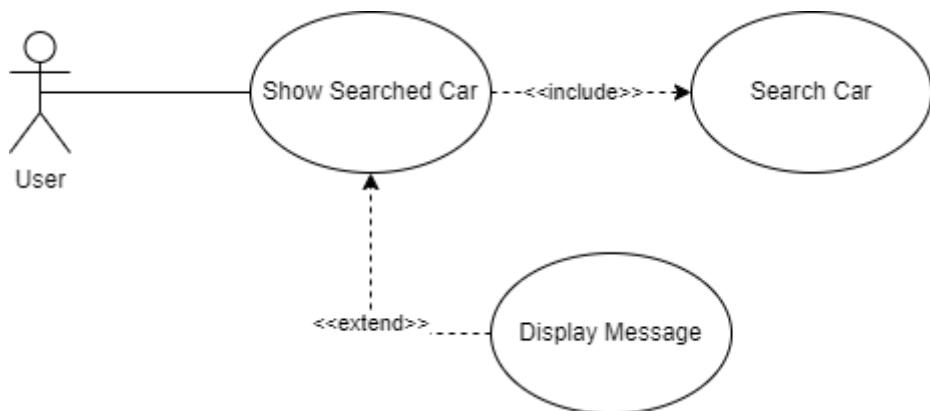
3.1.8.3 Use-case Model 3 - Delete Car



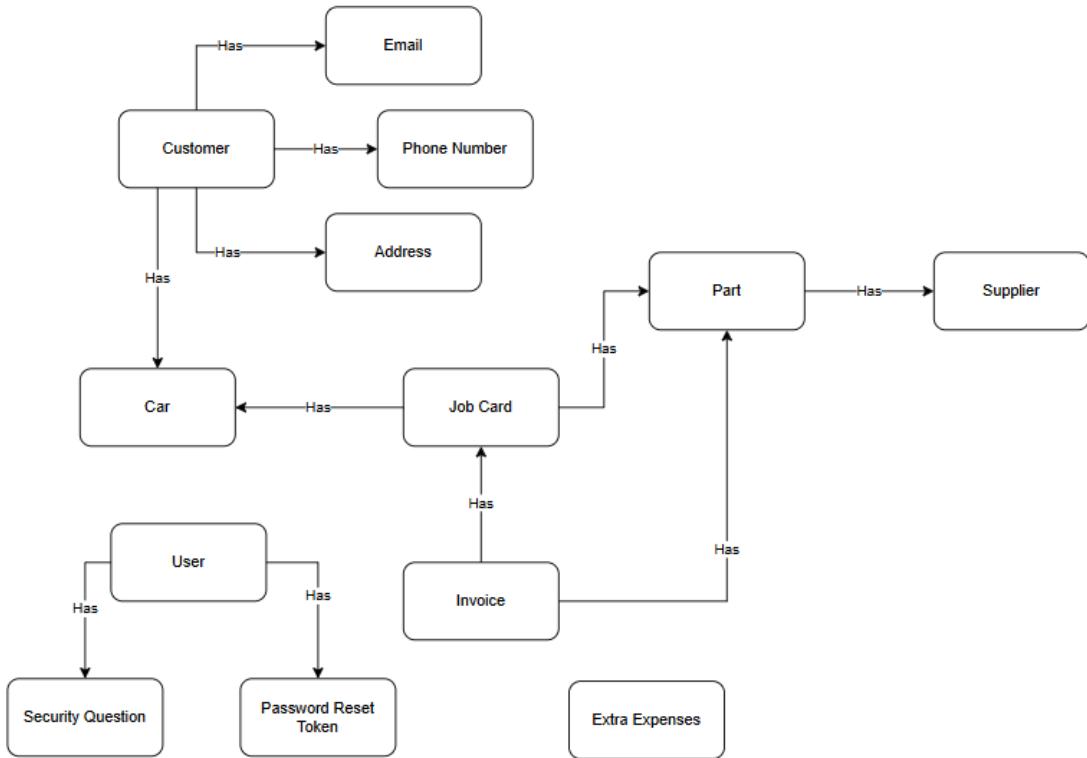
3.1.8.4 Use-case Model 4 - Print Car



3.1.8.5 Use-case Model 5 - Search Car

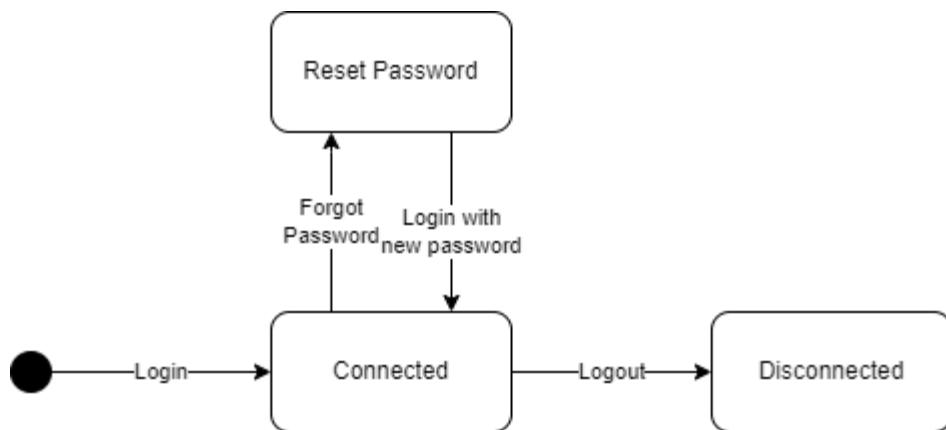


3.2 Class Modelling

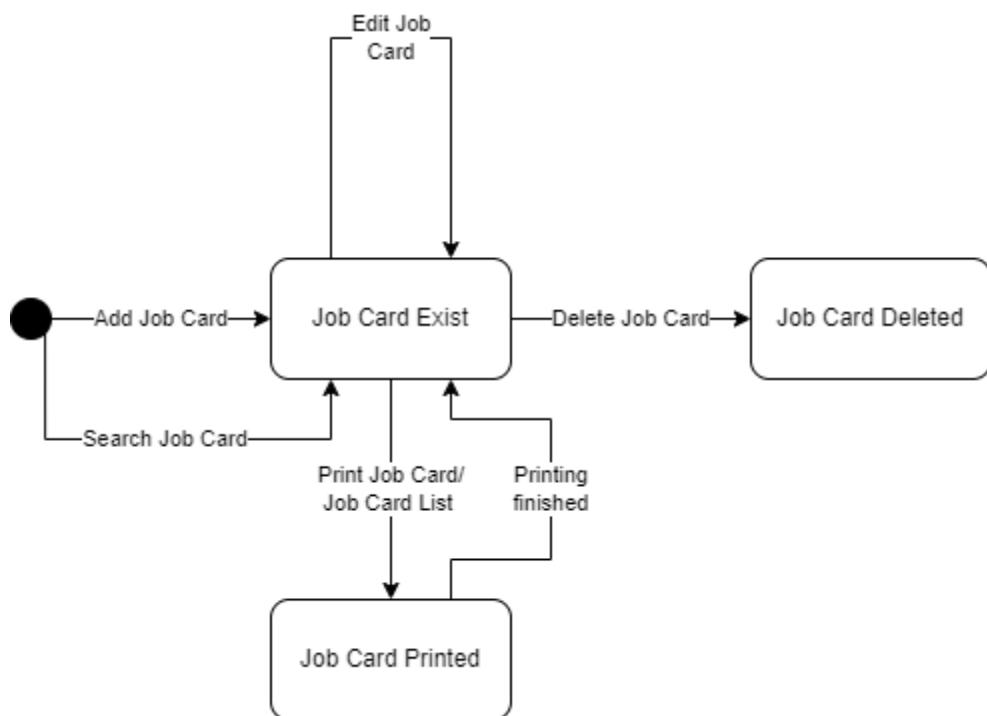


3.3 State Diagrams

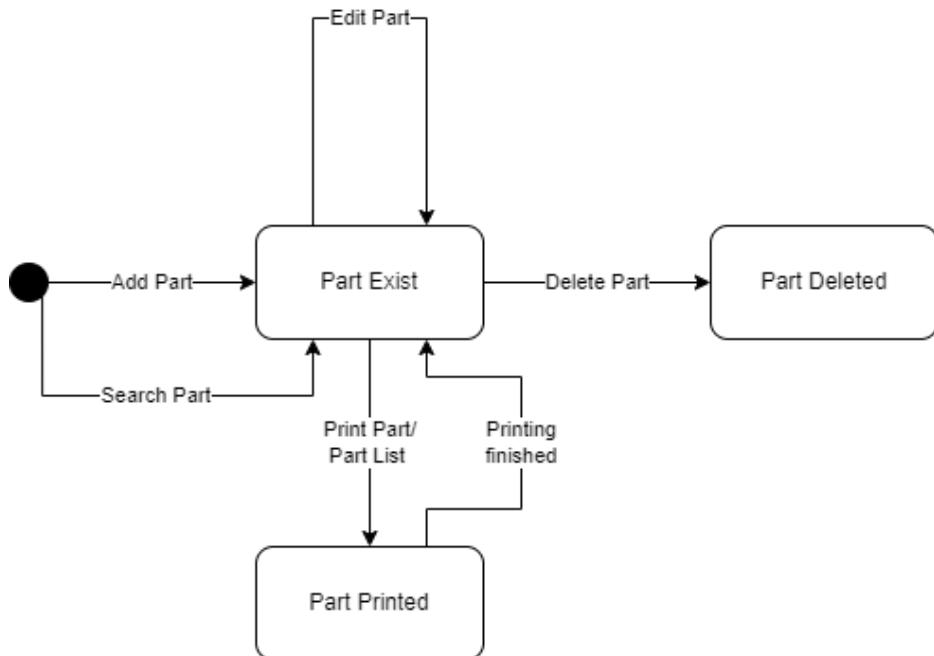
3.3.1 User Access – State Chart



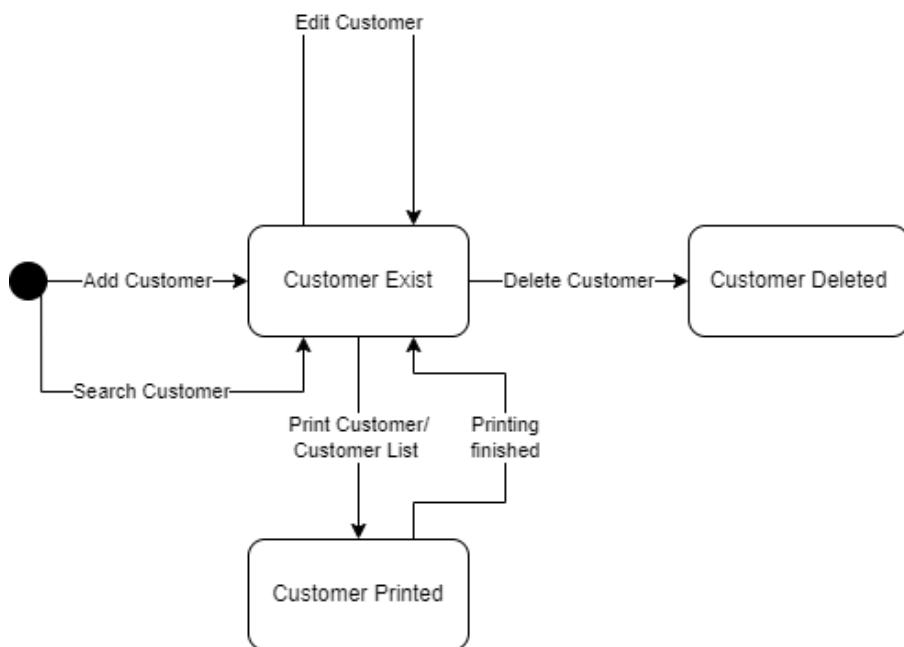
3.3.2 Jobs Management – State Chart



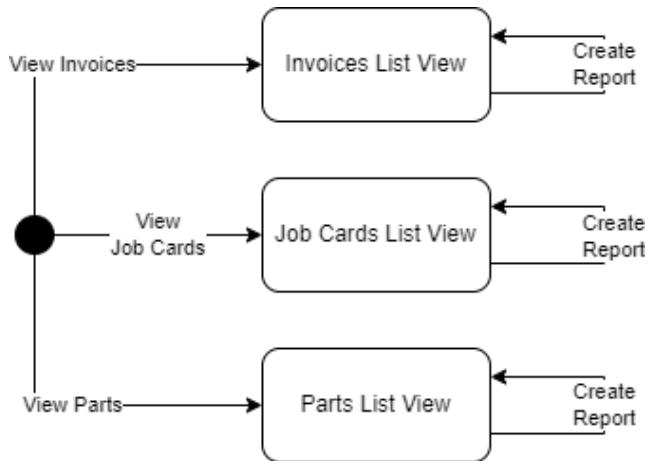
3.3.3 Parts Management - State Chart



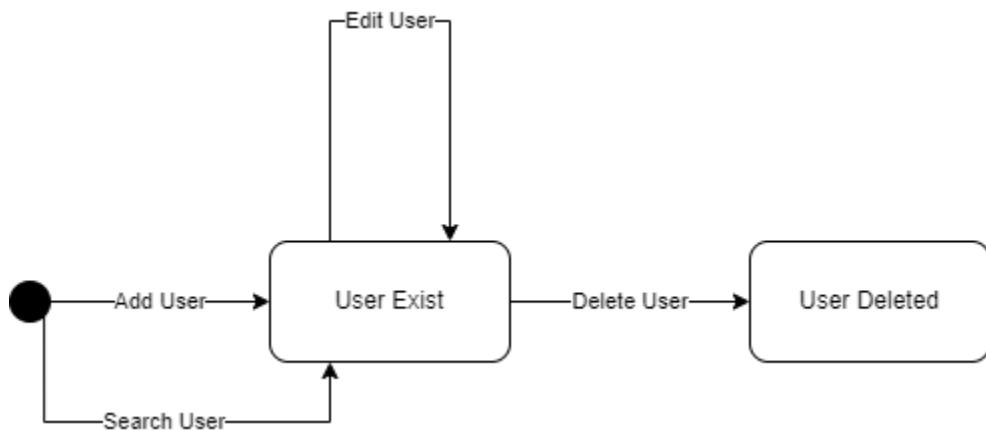
3.3.4 Customers Management - State Chart



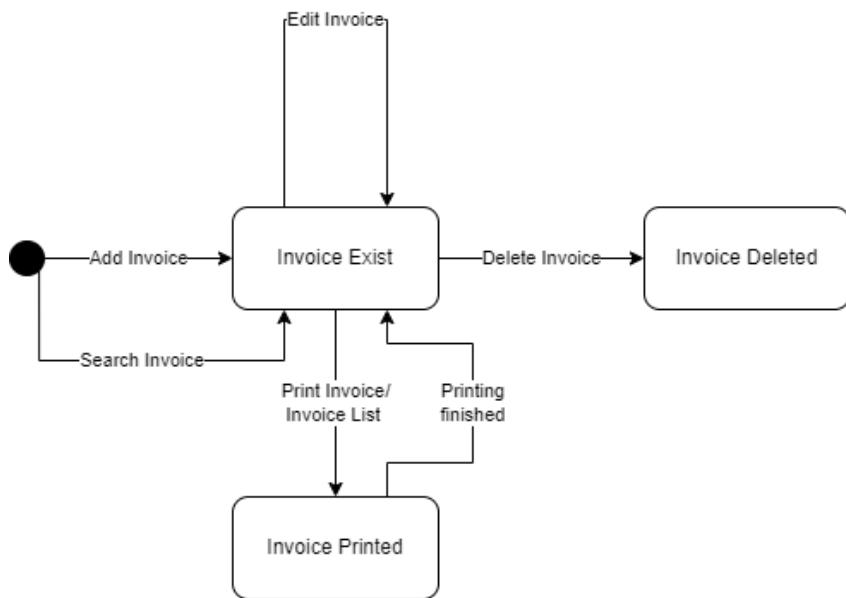
3.3.5 Accounting Management - State Chart



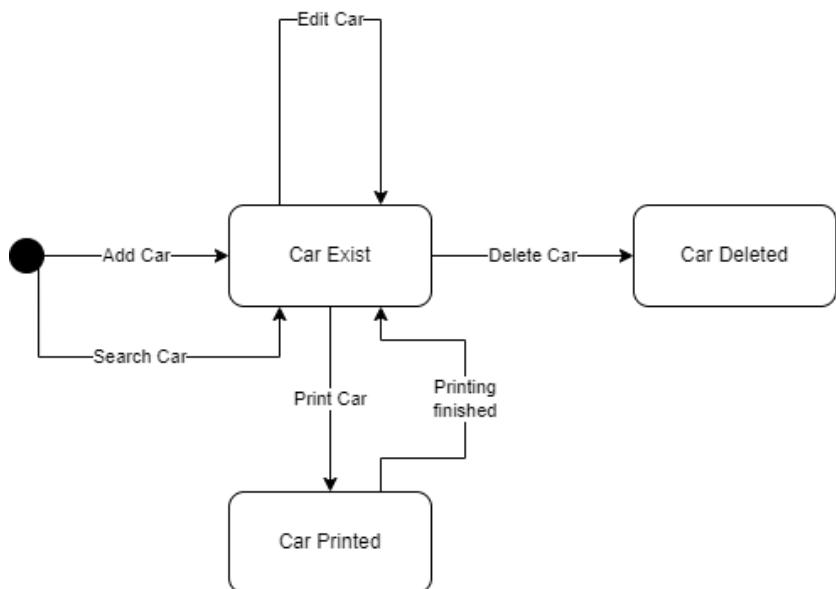
3.3.6 User Management - State Chart



3.3.7 Invoice Management - State Chart

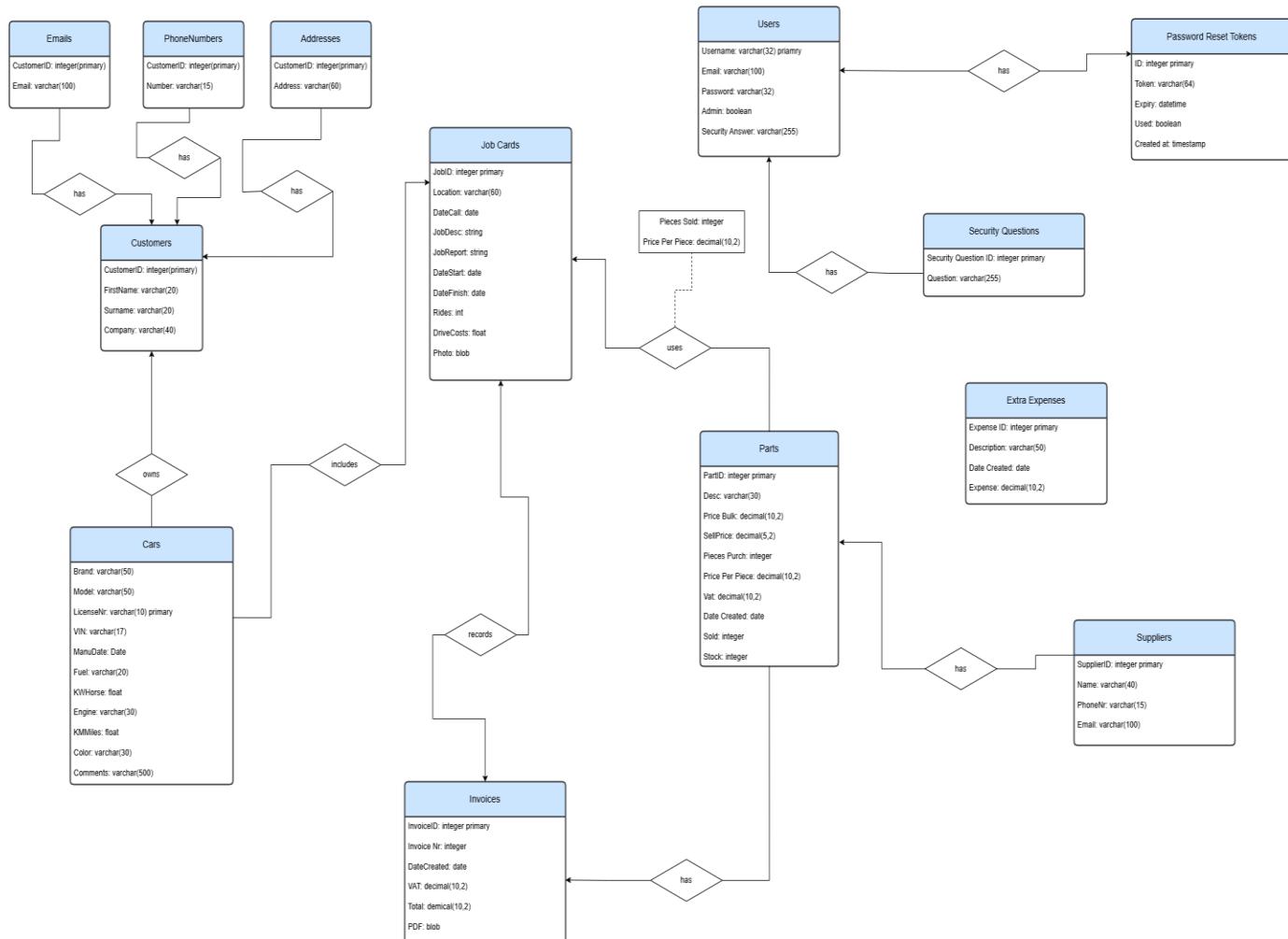


3.3.8 Cars Management - State Chart

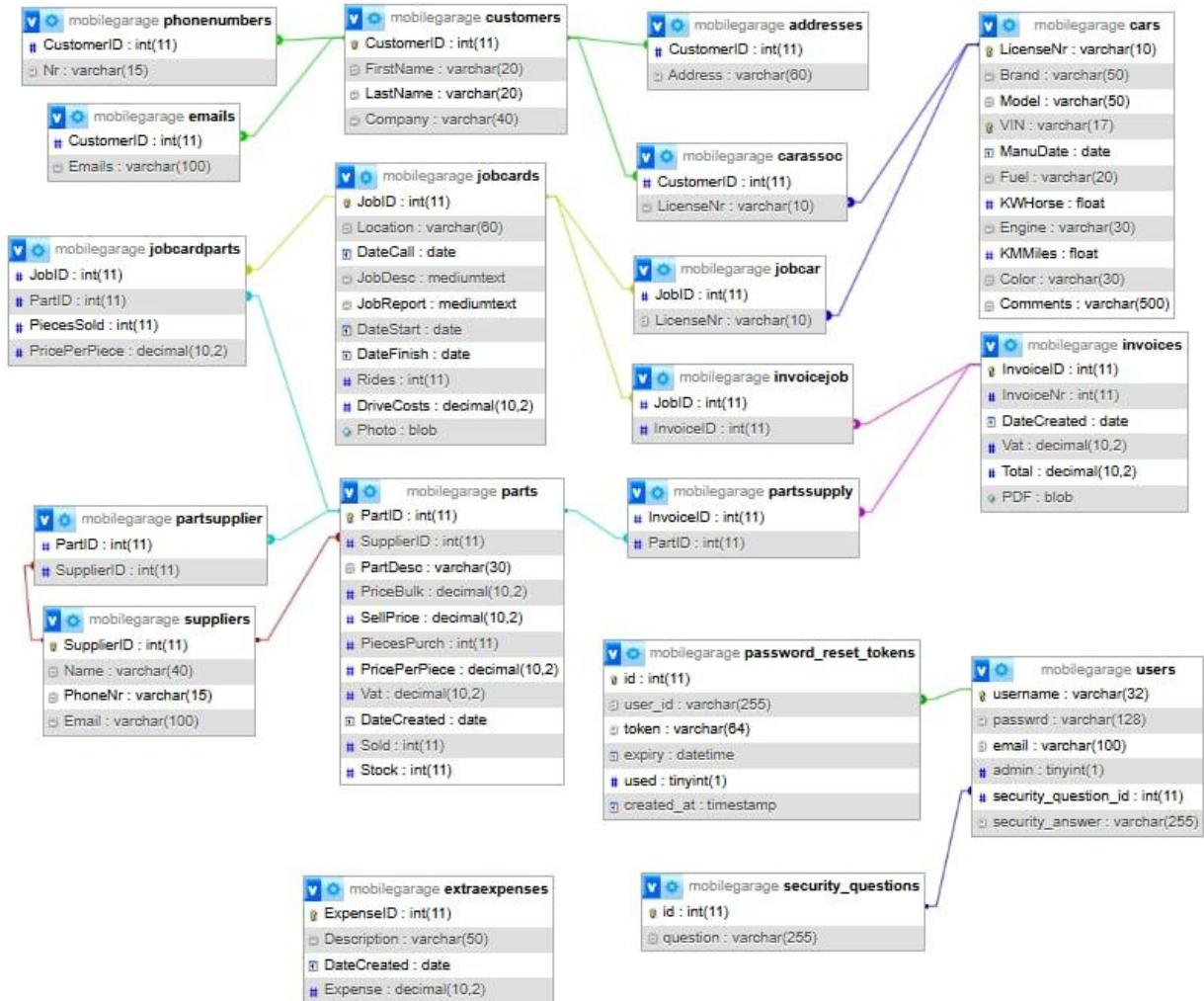


4. ENTITY-RELATIONSHIP DIAGRAM

4.1 E-R Diagram



4.2 Relational Schema



5. SOFTWARE PROJECT MANAGEMENT PLAN

1. People Involved in the development of the system:

- Antonis Andreou
- Gabriel Vasile
- Georgios Architektonidis
- Jorgos Xidias
- Kyriacos Andreou
- Stylianos Kyprianou

The organization of the team is an integral part of the successful implementation of the system, resulting in a fully functional product that meets all customer requirements. The team's organization is managed by the leaders assigned to each phase. Activities have been distributed among all team members, considering the workload and the time required for each task. The strategy we followed aims to maximize the team's productivity.

2. Leaders of each phase:

Requirements: Stylianos Kyprianou

Specifications: Antonis Andreou

Design: Jorgos Xidias

Implementation: Gabriel Vasile, Kyriacos Andreou

Integration: Georgios Architektonidis

3. Leaders of each phase and Gantt Chart:

Task Name	Resource Names
Specification	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
1. Document Preparation	Jorgos Xidias
2. Object-oriented	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.1 Data Flow Diagrams	
2.2 Data Flows	
2.3 Logic Of Processes	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.4 Data Stores	
2.5 Physical Resources	
2.6 Input/Output Specifications	Jorgos Xidias
2.7 Sizing	Gabriel Vasile
2.8 Hardware Requirements	Kyriacos Andreou
2.9 Use-case Modelling	Kyriacos Andreou, Georgios Architektonidis
2.10 Class Modelling	Antonis Andreou
2.11 State Diagrams	Gabriel Vasile
3. Entity-Relationship Diagram	Gabriel Vasile
4. Software Project Management Plan	Jorgos Xidias

Design	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
1. Document Preparation	Stylianos Kyprianou
2. Object Oriented System Design	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.1 Detailed Design	
2.2 Detailed Class Diagram	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.3 Interaction Diagrams	
2.4 Clients Of Objects	
Implementation	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
1. Database Implementation	Gabriel Vasile, Georgios Architektonidis
2. Implementation of Functions	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.1 Customer Management	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.1.1 Add New Customer	
2.1.1.1 Input	Kyriacos Andreou - After switch to OOP- Gabriel Vasile, Kyriacos Andreou
2.1.1.2 Processing	
2.1.1.3 Output	
2.1.1.4 Test	
2.1.2 Print Customer List	
2.1.2.1 Input	Georgios Architektonidis - After switch to OOP- Gabriel Vasile, Kyriacos Andreou
2.1.2.2 Processing	
2.1.2.3 Output	
2.1.2.4 Test	
2.1.3 Edit Customer	
2.1.3.1 Input	Gabriel Vasile - After switch to OOP- Gabriel Vasile, Kyriacos Andreou
2.1.3.2 Processing	

<i>2.1.3.3 Output</i>	
<i>2.1.3.4 Test</i>	
2.1.4 Delete Customer	
<i>2.1.4.1 Input</i>	
<i>2.1.4.2 Processing</i>	Antonis Andreou - After switch to OOP- Gabriel Vasile, Kyriacos Andreou
<i>2.1.4.3 Output</i>	
<i>2.1.4.4 Test</i>	
2.1.5 Print Customer	
<i>2.1.5.1 Input</i>	
<i>2.1.5.2 Processing</i>	Jorgos Xidias - After switch to OOP- Gabriel Vasile, Kyriacos Andreou
<i>2.1.5.3 Output</i>	
<i>2.1.5.4 Test</i>	
2.2 User Management	Gabriel Vasile, Stylianos Kyprianou
2.2.1 Add New User	
<i>2.2.1.1 Input</i>	
<i>2.2.1.2 Processing</i>	Stylianos Kyprianou
<i>2.2.1.3 Output</i>	
<i>2.2.1.4 Test</i>	
2.2.2 Edit User	
<i>2.2.2.1 Input</i>	
<i>2.2.2.2 Processing</i>	Stylianos Kyprianou
<i>2.2.2.3 Output</i>	
<i>2.2.2.4 Test</i>	
2.2.3 Delete User	
<i>2.2.3.1 Input</i>	
<i>2.2.3.2 Processing</i>	Gabriel Vasile
<i>2.2.3.3 Output</i>	
<i>2.2.3.4 Test</i>	
2.3 Parts Management	Stylianos Kyprianou, Jorgos Xidias, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
2.3.1 Add New Part	
<i>2.3.1.1 Input</i>	Jorgos Xidias - After switch to OOP- Jorgos Xidias

2.3.1.2	
<i>Processing</i>	
2.3.1.3 Output	
2.3.1.4 Test	
2.3.2 Print Part List	
2.3.2.1 Input	Jorgos Xidias - After switch to OOP- Jorgos Xidias
2.3.2.2	
<i>Processing</i>	
2.3.2.3 Output	
2.3.2.4 Test	
2.3.3 Edit Part	
2.3.3.1 Input	Georgios Architektonidis - After switch to OOP- Jorgos Xidias
2.3.3.2	
<i>Processing</i>	
2.3.3.3 Output	
2.3.3.4 Test	
2.3.4 Delete Part	
2.3.4.1 Input	Antonis Andreou - After switch to OOP- Jorgos Xidias
2.3.4.2	
<i>Processing</i>	
2.3.4.3 Output	
2.3.4.4 Test	
2.3.5 Print Part	
2.3.5.1 Input	Kyriacos Andreou - After switch to OOP- Jorgos Xidias
2.3.5.2	
<i>Processing</i>	
2.3.5.3 Output	
2.3.5.4 Test	
2.4 Cars Management	Stylianos Kyprianou
2.4.1 Add Car	
2.4.1.1 Input	Stylianos Kyprianou
2.4.1.2	
<i>Processing</i>	
2.4.1.3 Output	
2.4.1.4 Test	
2.4.2 Edit Car	
2.4.2.1 Input	Stylianos Kyprianou
2.4.2.2	
<i>Processing</i>	
2.4.2.3 Output	

2.4.2.4 Test	
2.4.3 Delete Car	
2.4.3.1 Input	
2.4.3.2 Processing	Stylianos Kyprianou
2.4.3.3 Output	
2.4.3.4 Test	
2.4.4 Print Car	
2.4.4.1 Input	
2.4.4.2 Processing	Stylianos Kyprianou
2.4.4.3 Output	
2.4.4.4 Test	
2.5 User Access	Kyriacos Andreou
2.5.1 Login	
2.5.1.1 Input	
2.5.1.2 Processing	Kyriacos Andreou
2.5.1.3 Output	
2.5.1.4 Test	
2.5.2 Forgot Password	
2.5.2.1 Input	
2.5.2.2 Processing	Kyriacos Andreou
2.5.2.3 Output	
2.5.2.4 Test	
2.5.3 Logout	
2.5.3.1 Input	
2.5.3.2 Processing	Kyriacos Andreou
2.5.3.3 Output	
2.5.3.4 Test	
2.6 Invoice Management	Jorgos Xidias
2.6.1 Add New Invoice	
2.6.1.1 Input	
2.6.1.2 Processing	Jorgos Xidias
2.6.1.3 Output	
2.6.1.4 Test	

2.6.2 Print Invoice List	
2.6.2.1 Input	
2.6.2.2 Processing	Jorgos Xidias
2.6.2.3 Output	
2.6.2.4 Test	
2.6.3 Edit Invoice	
2.6.3.1 Input	
2.6.3.2 Processing	Jorgos Xidias
2.6.3.3 Output	
2.6.3.4 Test	
2.6.4 Delete Invoice	
2.6.4.1 Input	
2.6.4.2 Processing	Jorgos Xidias
2.6.4.3 Output	
2.6.4.4 Test	
2.6.5 Print Invoice	
2.6.5.1 Input	
2.6.5.2 Processing	Jorgos Xidias
2.6.5.3 Output	
2.6.5.4 Test	
2.7 Jobs Management	Antonis Andreou
2.7.1 Add New Job Card	
2.7.1.1 Input	
2.7.1.2 Processing	Antonis Andreou
2.7.1.3 Output	
2.7.1.4 Test	
2.7.2 Print Job Card List	
2.7.2.1 Input	
2.7.2.2 Processing	Antonis Andreou
2.3.3.3 Output	

2.7.2.4 Test	
2.7.3 Edit Job Card	
2.7.3.1 Input	
2.7.3.2 Processing	Antonis Andreou
2.7.3.3 Output	
2.7.3.4 Test	
2.7.4 Delete Job Card	
2.7.4.1 Input	
2.7.4.2 Processing	Antonis Andreou
2.7.4.3 Output	
2.7.4.4 Test	
2.7.5 Print Job Card	
2.7.5.1 Input	
2.7.5.2 Processing	Antonis Andreou
2.7.5.3 Output	
2.7.5.4 Test	
2.8 Accounting Management	Gabriel Vasile, Georgios Architektonidis
2.8.1 View Job Cards - Details	
2.8.1.1 Input	
2.8.1.2 Processing	Georgios Architektonidis
2.8.1.3 Output	
2.8.1.4 Test	
2.8.2 View Parts - Details	
2.8.2.1 Input	
2.8.2.2 Processing	Gabriel Vasile
2.8.2.3 Output	
2.8.2.4 Test	
2.8.3 View Invoices	
2.8.3.1 Input	Gabriel Vasile
2.8.3.2	

<i>Processing</i>	
2.8.3.3 <i>Output</i>	
2.8.3.4 <i>Test</i>	
2.8.4 Create Report for Finances	
2.8.4.1 <i>Input</i>	Gabriel Vasile
2.8.4.2	
<i>Processing</i>	
2.8.4.3 <i>Output</i>	
2.8.4.4 <i>Test</i>	
2.8.5 Create Report for List of Job Cards - Monthly/Yearly	
2.8.5.1 <i>Input</i>	Gabriel Vasile
2.8.5.2	
<i>Processing</i>	
2.8.5.3 <i>Output</i>	
2.8.5.4 <i>Test</i>	
2.8.6 Create for Single Chosen Job Card	
2.8.6.1 <i>Input</i>	Gabriel Vasile
2.8.6.2	
<i>Processing</i>	
2.8.6.3 <i>Output</i>	
2.8.6.4 <i>Test</i>	
2.8.7 Create for List of Parts - Monthly/Yearly	
2.8.7.1 <i>Input</i>	Georgios Architektonidis
2.8.7.2	
<i>Processing</i>	
2.8.7.3 <i>Output</i>	
2.8.7.4 <i>Test</i>	
2.8.8 Create Report for Single Chosen Part	
2.8.8.1 <i>Input</i>	Georgios Architektonidis
2.8.8.2	
<i>Processing</i>	

<i>2.8.8.3 Output</i>	
<i>2.8.8.4 Test</i>	
2.8.9 Create Report by Month	
<i>2.8.9.1 Input</i>	
<i>2.8.9.2 Processing</i>	Georgios Architektonidis
<i>2.8.9.3 Output</i>	
<i>2.8.9.4 Test</i>	
2.8.10 Create Report by Year	
<i>2.8.10.1 Input</i>	
<i>2.8.10.2 Processing</i>	Georgios Architektonidis
<i>2.8.10.3 Output</i>	
<i>2.8.10.4 Test</i>	
3. Search	Stylianos Kyprianou, Antonis Andreou
<i>3.1 Input</i>	Stylianos Kyprianou
<i>3.2 Processing</i>	
<i>3.3 Output</i>	Antonis Andreou
<i>3.4 Test</i>	
4. Dashboard	
<i>4.1 Input</i>	
<i>4.2 Processing</i>	Stylianos Kyprianou
<i>4.3 Output</i>	
<i>4.4 Test</i>	
5. Integration and Test	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
6. Installation and Training	Stylianos Kyprianou, Jorgos Xidias, Gabriel Vasile, Kyriacos Andreou, Georgios Architektonidis, Antonis Andreou
7. Creation of Admin Manual	Jorgos Xidias
8. Helpfile	Kyriacos Andreou

