Software Requirement and Design Specifications

Freight Management System

Version: [1.0.0]

Course Code	Software analysis and Design
Instructor	Miss Nida Munawar
Project Team	1) Bilal Ahmed Khan (k200183) 2) Hameez Ahmed Siddiqui (k200242)
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1. Introduction

1.1. Purpose of Document

To provide complete documentation of our Database Project (Freight Management System)

1.2. Intended Audience

Anybody who intends to use this software in the future or intends to make further improvements/changes to it

1.3 Definition of Terms, Acronyms and Abbreviations

[Not Applicable]

Term	***Description***

1.4 Document Convention

[Headings will be in Arial (font size 12px and body-weight: bold), normal text would be in Arial (font size 10px, body-weight: normal)]

2. Overall System Description

2.1. Project Background

This project was conceived in order to provide a robust and efficient solution for freight management of ports.

2.2. Project Scope

This project enables the users to handle various operations of ports such as inventory management, account management etc.

2.3. Not In Scope

Not applicable

2.4. Project Objectives

To provide a solution that enables the port management to

i) Manage inventory of the ports

ii) Manage accounts and various billing of the ports w.r.t. to various customers

2.5. Stakeholders

There are 2 main stake-holders in this project

i) Admin

ii) Customer

2.6. Operating Environment

The software requires a web browser and an active internet connection to work.

2.7. System Constraints

When running via localhost for demo purposes the, host machine must have a programming utility that mimics the actions of mysql server (such as XAMPP used in this case)

2.8. Assumptions & Dependencies

[This section will identify:

- *Any assumptions taken regarding the system or environment*
- *Any dependency of system on any external factor.]*

3. External Interface Requirements

[This section is intended to specify any requirements that ensure that the new system will connect properly to external components. Place a context diagram showing the external interfaces at a high level of abstraction.]

3.1. Hardware Interfaces

[Describe the characteristics of each interface between the software and hardware components of the system. This description might include the supported device types, the nature of the data and control interactions between the software and the hardware.]

3.2. Software Interfaces

[Describe the connections between this system and other external software components (identified by name and version), including databases, operating systems, tools, libraries, and integrated commercial components. Identify and describe the purpose of the data items or messages exchanged among the software components. Describe the services needed and the nature of the inter-component communications. Identify data that will be shared across software components.]

3.3. Communications Interfaces

[Describe the requirements associated with any communication functions the system will use, including e-mail, web browser, network communications standards or protocols, electronic forms, and so on. Define any pertinent message formatting. Specify communication security or encryption issues, data transfer rates, and synchronization mechanisms.]

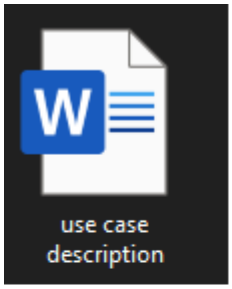
4. Functional Requirements

4.1. Functional Hierarchy

1) The main program starts from the homepage where the visitor can log in as admin or the customer
2) After logging in as the Admin user can
    a. Add/Update/Delete/Read ports connected the system
    b. Deactivate customer accounts
    c. Add/Update/Delete/Read all ships docked at the port
    d. Add/Update/Delete/Read inventory of each ship
3) After logging in as the customer the user can:
    a. Add/Update/Delete/Read orders
    b. Add/Update/Delete/Read Payments for those orders

4.2. Use Cases

4.2.1. [All use cases have been maintained in a separate file "use case description.docx"]



5. Non-functional Requirements

5.1. Performance Requirements

[The web app requires a system which has stable internet connectivity and the capability to run a web browser]

5.2. Safety Requirements

[Not Applicable]

5.3. Security Requirements

A Secure internet connection

5.4. User Documentation

Following user documentation will be provided with the software

1) Complete SRS Document

2) Use Case Description Files

3) UML Papyrus model diagrams

SDS

6. System Architecture

Following is the architecture of our web app

6.1. System Level Architecture

The front end is made upon:

1) HTML
2) CSS
3) Bootstrap

The backend is made upon:

1) Php

The Database used is

1) MySql

6.2. Software Architecture

[Not applicable]

7. Design Strategy

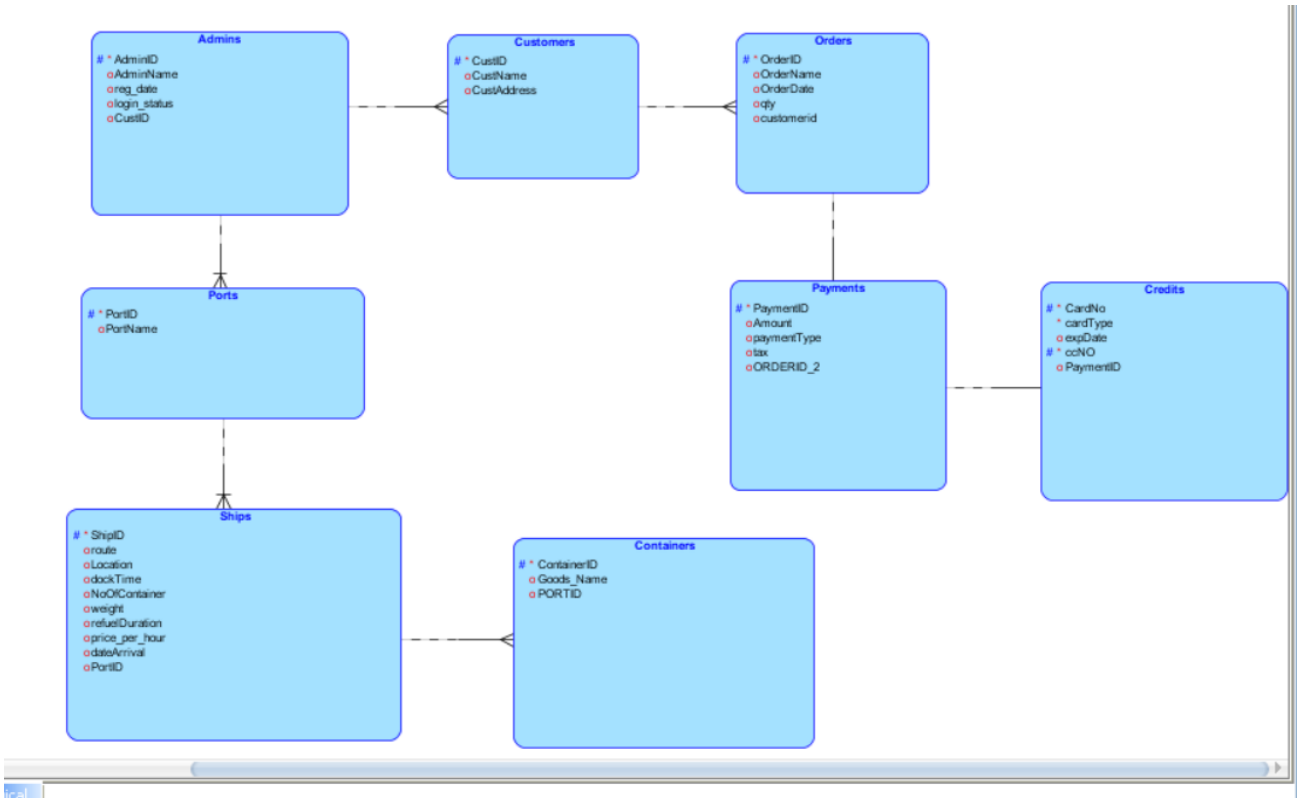
In our program we wanted to create a simple yet fully working project that focused on things that matter with a minimalist UI/UX.

8. Detailed System Design

8.1. Database Design

8.1.1. ER Diagram

[Entity Relationship Diagram of the system with description]

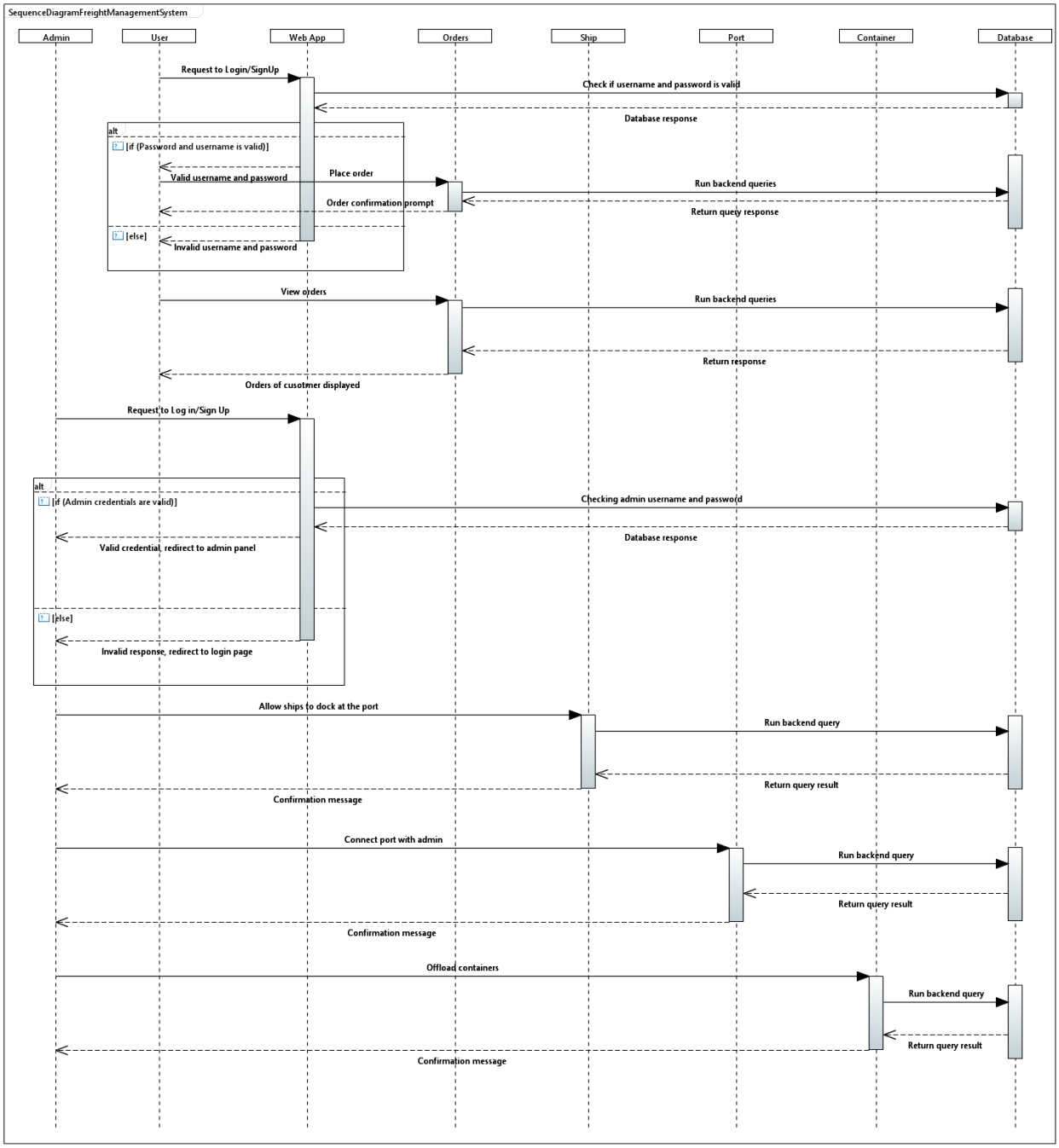


8.1.2. Data Dictionary

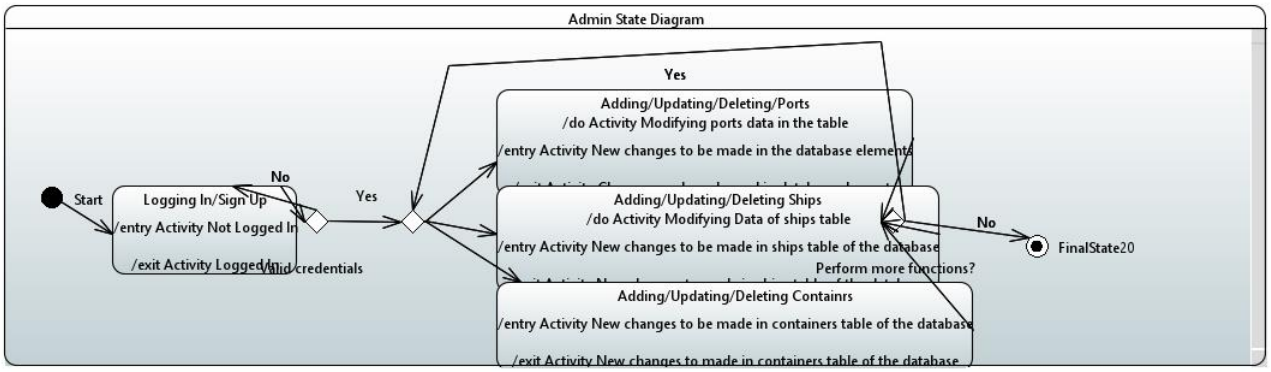
<Admin>						
Name	*Admin*					
Alias	*None*					
Where-used/how-used	*As a main actor of the program*					
Content description	*Data dictionary for the admin table*					
Column Name	***Description***	***Type***	***Length***	***Null able***	***Default Value***	***Key Type***
Adminid	None	varchar	*10*	*No*	*None*	*Primary Key*
AdmiName		*varchar*	*20*	*No*	*None*	*No*
Regdate	None	Date		No	No	No
Adminpaswo rd	None	Varachar	10	No	No	No
LoginSatus	None	Tinyint	1	No	No	No

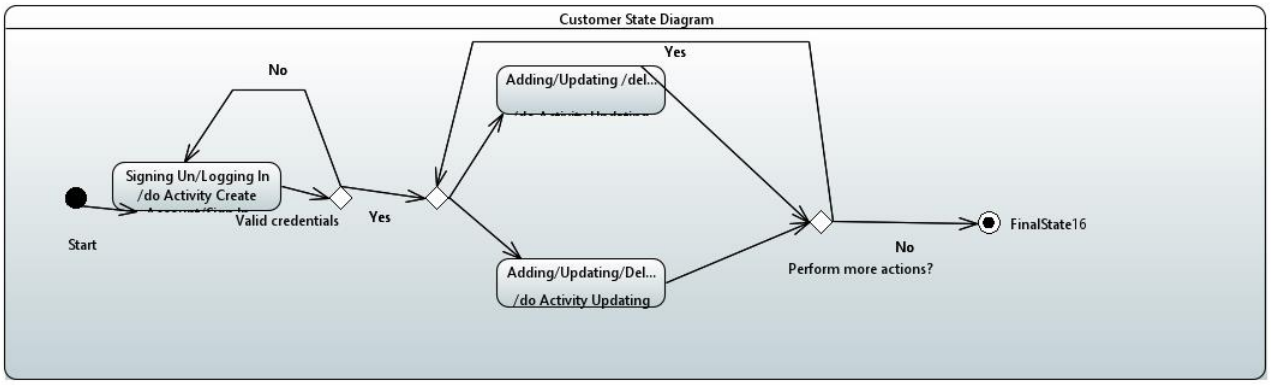
9. Application Design

9.1.2. Sequence Diagram

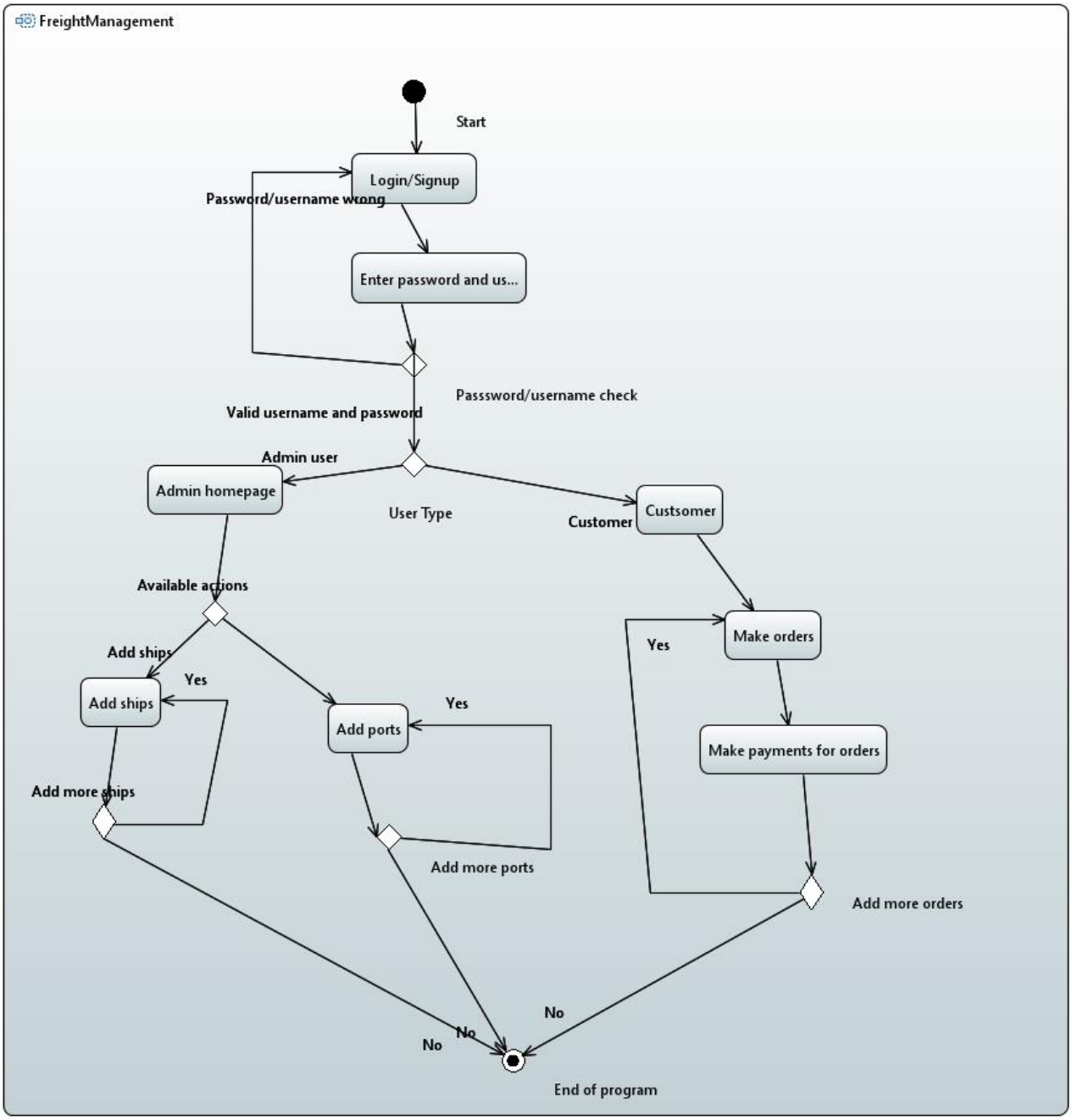


9.1.3. State Diagram





9.1.4. Activity Diagram



10. References

[Not applicable]

11. Appendices

[Not Applicable]