# Software Requirements Specification(SRS)

For

# **Bus Booking System**

Version 1.0 approved

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# **Revision History**

Name	Date	Reason For Changes	Version
Munzir kalim		We discussed about SRS	1.0.1
Shaheer		Diagrams included(use case, system, sequence, class & Activity Diagram)	1.0.2

# 1. Introduction

# 1.1 Purpose

"Bus Booking System" is software whose requirements are specified in this document including it is the 1st Revision of Software Requirement Specification. The scope of "Bus Booking System" is to develop reliable & efficient software for customers who want to travel to different cities by bus. This SRS describes only part of the system.

## 1.2 Document Conventions

There are different words which we are using abbreviations when we are writing SRS:

• SRS : Software Requirement Specification

• BBS : Bus Bookings System

# 1.3 Intended Audience and Reading Suggestions

This document is for developers, project managers, testers and requirement engineers. Read this document by the top to bottom approach then you will understand the complete requirements of this software.

# 1.4 Product Scope

"Bus Booking System" is software which provides booking of buses online. It stores customers' personal data records, scheduled routes, frequent trips, drop points and other information.

#### 1.5 References

The Software Requirement Specification of "Bus Booking System" reference is on this link: https://www.slideshare.net/muzammilsiddiq/bus-ticket-management-system-documentation

 $\underline{https://blog.visual-paradigm.com/what-are-the-six-types-of-relationships-in-uml-class-\underline{diagrams/}}$ 

# 2. Overall Description

# 2.1 Product Perspective

We decided to make software called "Bus Booking System" because many customers wanted to book or reserve their seats online.

## 2.2 Product Functions

# 2.2.1 User Management(means CRUD operations on different level as well as with respect to their designation):

- Admin(Full access)
- Customer(Some functionality is hidden)
- 2.2.2 Ticket Management
- 2.2.3 Deals & Ticket Management
- 2.2.4 Discount Management
- 2.2.5 Order Management

## 2.3 User Classes and Characteristics

#### 2.3.1 Admin

Admin who own this product will have full access to this product.

## 2.3.2 Customer

Customers who use our product services can access all modules in this product but some functionality will be hidden from it.

# 2.4 Operating Environment

#### 2.4.1 Operating System:

• Windows 10

## 2.4.2 Platform for Implementation:

• Visual Studio (.Net 6.0)

#### 2.4.3 Language:

- C#
- SQL

# 2.5 Design and Implementation Constraints

#### **2.5.1 Internet**

BBS will only run when an internet service is available.

#### 2.5.2 Website & Mobile App

BBS would also be responsible for accepting website & mobile App orders but it is to be assured that website & mobile App is not our implementation domain. We will only develop desktop applications.

#### 2.6 User Documentation

User manual of "Bus Booking System" is provided with this software system.

# 2.7 Assumptions and Dependencies

#### **2.7.1 Internet**

• It has to assume that the customer has a strong internet connection when using this desktop app.

# 3. External Interface Requirements

# 3.1 User Interfaces

# 3.1.1 Login Page

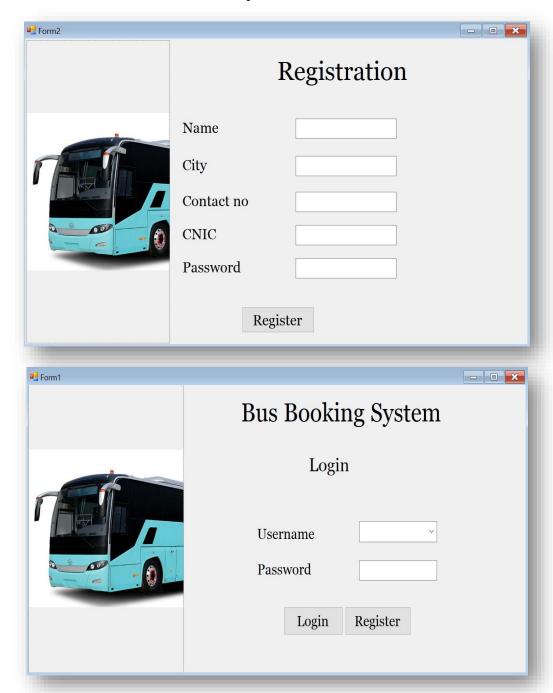
#### 3.1.1.1 Admin

Admin can login from the login interface, after login there is an interface where admin can do multiple activities.



## **3.1.1.2** Customer

Customers can register from the registration interface, after registration customers can login from the login interface, after login there is an interface where customers can do multiple activities.



# 3.1.2 Home Page

## 3.1.2.1 Admin

This is the admin homepage in which admin can add customers.



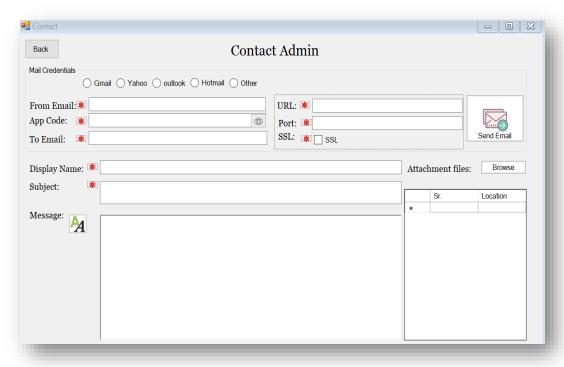
#### **3.1.2.2 Customer**

This is the customer homepage in which customers can book seats.



#### 3.1.3 Contact Admin

This is the contact admin page in which customers can contact the admin and ask any queries about this software.



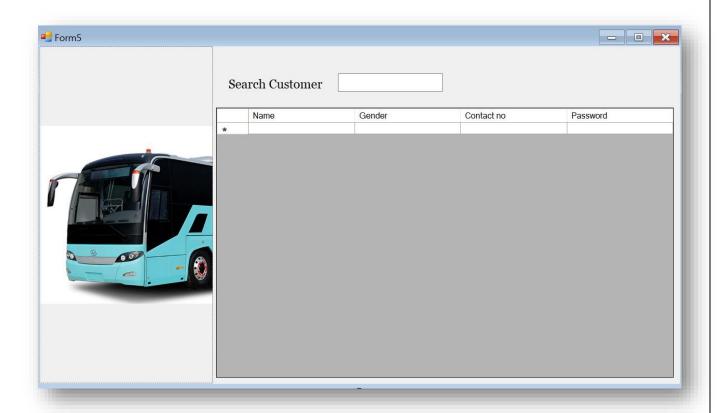
#### 3.1.4 Bus Schedule

This is the bus schedule page in which customers can see the bus timings.



#### 3.1.5 Customer details

This is the customer details page in which admin can view customer details.



## 3.2 Hardware Interfaces

- This desktop application can run on any version of windows(using .Net framework 6.0 or above).
- The desktop application is not responsive, so it is necessary to use hardware with resolution 1024 x 786.

## 3.3 Software Interfaces

C# .Net framework(6.0)

OS Windows 10

Database Microsoft SQL Server Management Tool 18

## 3.4 Communications Interfaces

Customers can contact the admin by email address.

# 4. System Feature

# 4.1 Login Page

## 4.1.1 Description and Priority

A panel used for login into BBS, Priority=9

## 4.1.2 Stimulus/Response Sequences

**Stimulus:** User enters username & password.

**Response:** Username & password are validating from Database.

Stimulus: User clicks on login button.

Response: If username & password correct then login successfully and view

homepage else error message is displayed.

## **4.1.3** Functional Requirements

Feature ID	Feature Name	Description
LI-F1	Login Data	The user shall be able to enter username & password in the database.
LI-F2	Validate Data	The database shall be able to validate username & password.

## 4.2 Book Seat

## 4.2.1 Description and Priority

BBS must have the basic functionality of booking seats in which customers can book their seats any time, Priority=9

## 4.2.2 Stimulus/Response Sequences

Stimulus: Customer can book seat

**Response:** System will save customer data

## **4.2.3** Functional Requirements

Feature ID	Feature Name	Description
BS-F1	Book Seat	The system allows customers to book a seat.

## 4.3 Add Customers

# 4.3.1 Description and Priority

BBS must have the basic functionality of add customers in which admin can add,update,delete customers anytime seats any time, Priority=9

# 4.3.2 Stimulus/Response Sequences

**Stimulus:** Admin can add customer's details

**Response:** System will save customer data

**Stimulus:** Admin can update customer details **Response:** System will update customer data

**Stimulus:** Admin can delete customer details **Response:** System will delete customer data

## **4.3.3** Functional Requirements

Feature ID	Feature Name	Description
BS-F1	Add customer	The system allows the admin to add customer details.
BS-F2	Update customer	The system allows the admin to update customer details.

BS-F3	Delete customer	The system allows the admin to delete customer details.
		details.

## 4.4 Customer details

## 4.4.1 Description and Priority

BBS must have the basic functionality of customers details in which admin can view customers details, Priority=9

# 4.4.2 Stimulus/Response Sequences

**Stimulus:** Admin can view customer's details **Response:** System will show customers data

## **4.4.3** Functional Requirements

Feature ID	Feature Name	Description
CD-F1	customer details	The system allows the admin to view customer details.

## 4.5 Buses Schedule

## 4.5.1 Description and Priority

BBS must have the basic functionality of buses schedule in which customer can view buses details, Priority=9

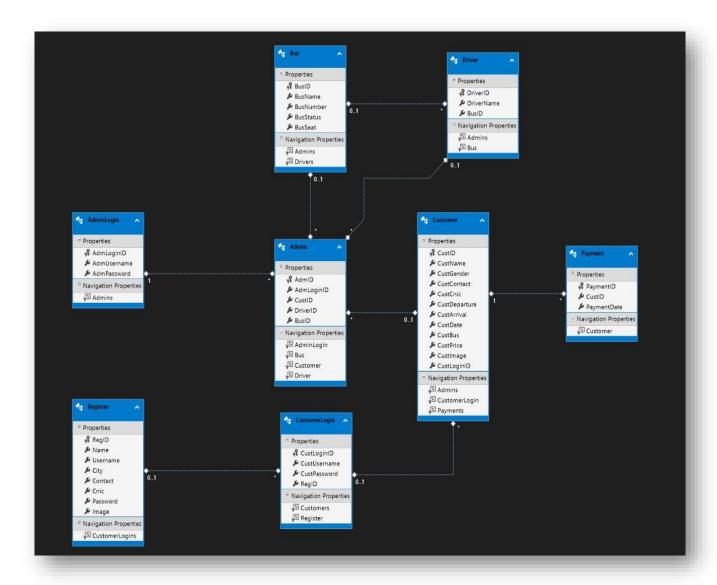
#### 4.5.2 Stimulus/Response Sequences

**Stimulus:** customer can view buses details **Response:** System will show buses details

# 4.5.3 Functional Requirements

Feature ID	Feature Name	Description
BS-F1	buses details	The system allows customers to view bus details.

# 5. Entity Relationship Diagram(ERD)



# 6. Requirements

# **6.1 Functional Requirements:**

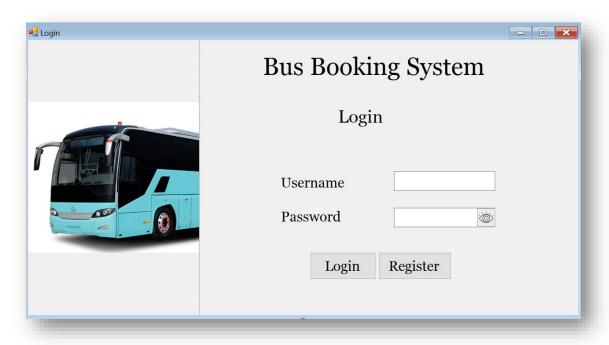
- Admin can add customer
- Admin can delete customer
- Admin can edit customer details
- Admin can view payment history
- Admin can view booking history
- Admin can assign drivers
- Admin can assign busses
- Customer can reserve seat
- Customer can book ticket
- Customer can cancel ticket
- Customer can check routes
- Customer can view seat availability
- Customer can contact admin

# **6.2 Non-Functional Requirements**

- Scalability: System must be able to accommodate large data of Users.
- **Availability**: Students can be able to use this software 24 hours.
- **Security**: All data of users will be saved from malware attacks or unauthorized access.
- Usability: Easy to use for users.

# 7. System Interface(GUI)

# 7.1 Login page



# 7.2 Registration page



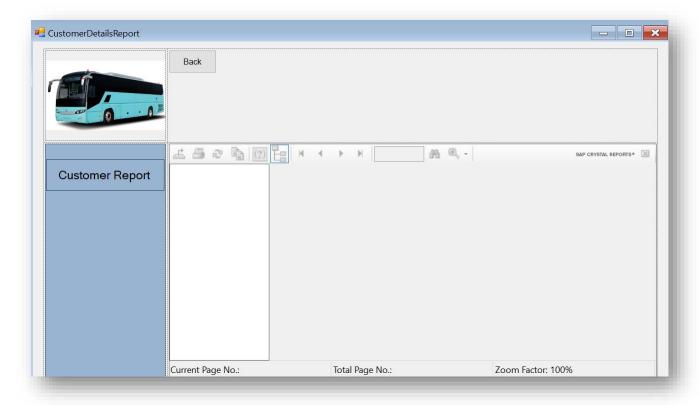
# 7.3 Admin home page



# 7.4 Customer details page



# 7.5 Customer details Report



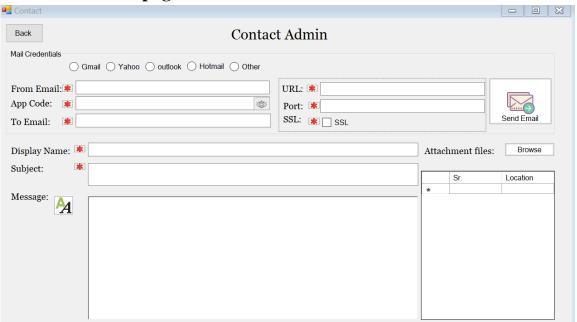
# 7.6 Customer home page



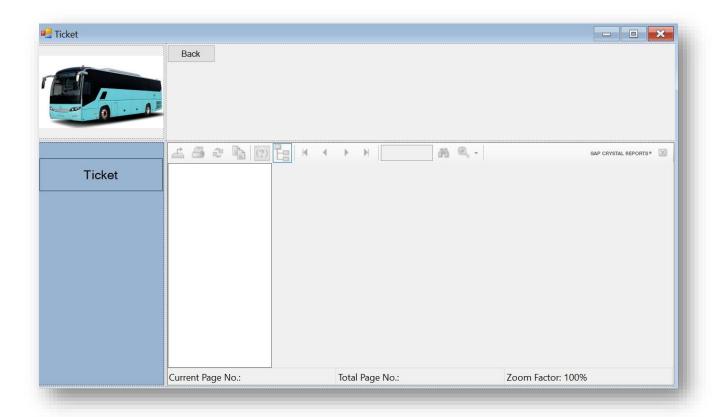
# 7.7 Buses schedule page



# 7.8 Contact page

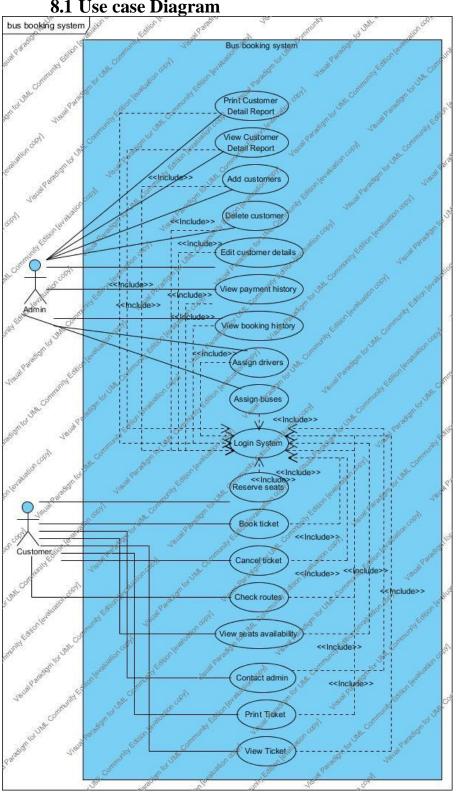


# 7.9 Ticket Report

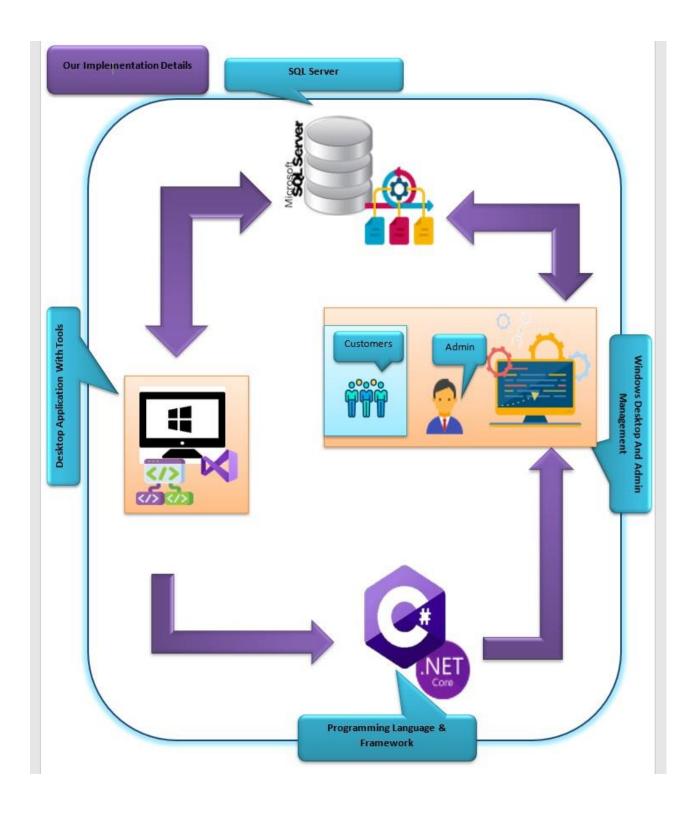


#### 8. **Software Design:**

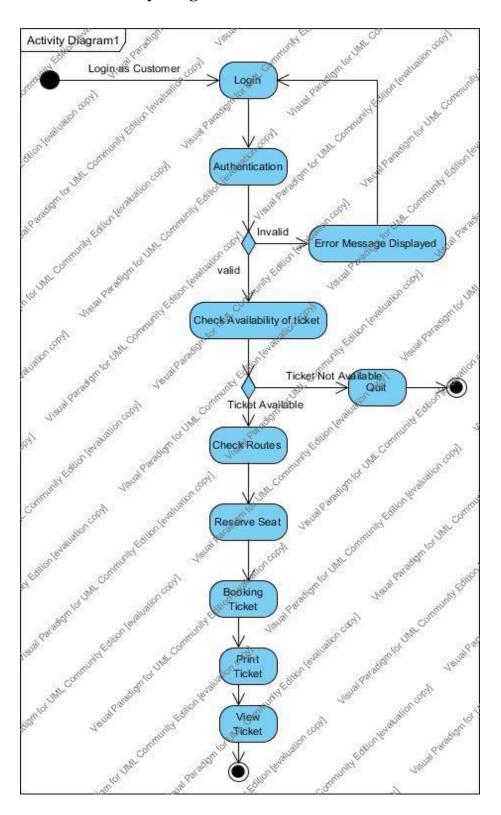
8.1 Use case Diagram

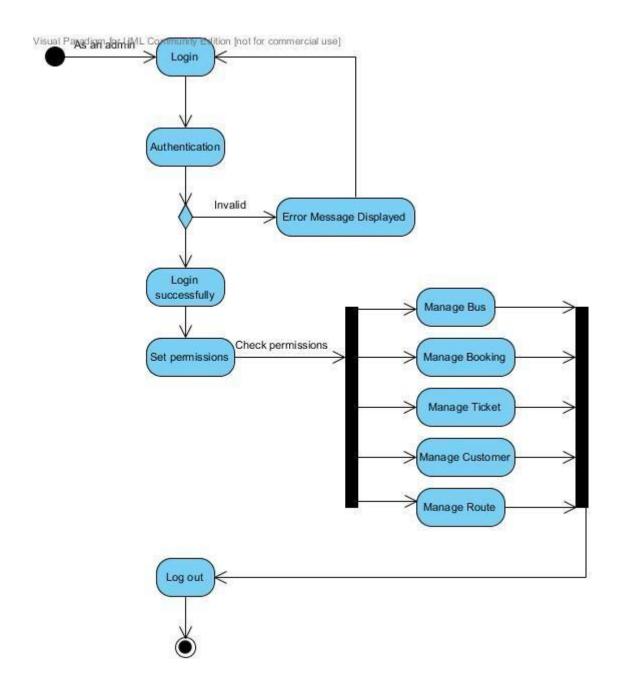


# 8.2 System Diagram

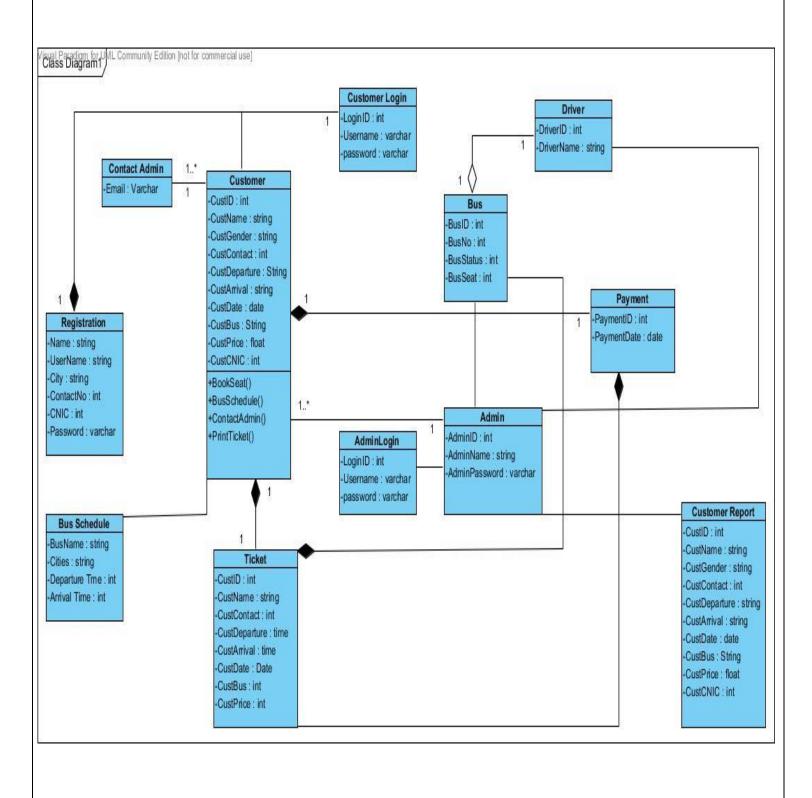


# 8.3 Activity Diagram





# 8.4 Class Diagram



7.5 Sequence Diagram:

