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<b>Project Title</b>	Booking Management System
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**Booking Management System**  
**Software Requirements Specification**

Booking Management System	Computer Software
Software Requirements Specification	Date: <04/12//2021>

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# Software Requirements Specification

## 1. Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references, and overview of the SRS. The aim of this document is to gather and analyze and give an in-depth insight of the complete **Booking Management System** by defining the problem statement in detail. Nevertheless, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features. The detailed requirements of the **Booking Management System** are provided in this document.

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### 1.1 Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters, and goals. This document describes the project's target audience and its user interface, hardware, and software requirements. It defines how our client, team and audience see the product and its functionality. Nonetheless, it helps any designer and developer to assist in software development lifecycle (SDLC) processes.

### 1.2 Scope

Primarily, the scope pertains to the Booking Management System product features for making project live. It focuses on the company, the stakeholders, and applications, which allow for sales, distribution, and marketing.

This SRS is also aimed at specifying requirements of software to be developed but it can also be applied to assist in the selection of in-house and commercial software products. The standard can be used to create software requirements specifications directly or can be used as a model for defining an organization or project specific standard. It does not identify any specific method, nomenclature, or tool for preparing an SRS.

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### 1.3 Software development lifecycle (SDLC)

We need to use Waterfall model as a SDLC to develop our product for client. The reason behind choosing this model as SDLC because there is no risk involve in the project. Also, customer wants a one-time product and does not need changes in near future.

### 1.4 Software Architecture Style

We need to follow Layered Architecture for developing product. It enables teams to work on different parts of the application parallelly with minimal dependencies on other teams. It also enables to develop loosely coupled systems. Different components of the application can be independently deployed, maintained, and updated, on different time schedules. It helps us to test the components independently of each other.

### 1.5 Problems and limitation

Following are the problems with existing system: -

- **Time Wastage:** because of the large number of bookings, this is very stressful, and time-wasting before locating and finding a booking is available or not.
- **Consumption Space:** the paperwork kept in the files, and the files consume many spaces in the collection.

### 1.6 Objective

The new system can reduce customer complaints about the company.

### 1.7 Definitions, Acronyms, and Abbreviations

CNIC	Computerized National Identity Card Number
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### 1.8 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional, non-functional and data requirements of the product. General description of the project is discussed in section 2 of this document. Section 3 gives the functional requirements, non-functional requirements, data requirements and constraints and assumptions made while designing the Booking Management System. It also gives the user viewpoint of product. Section 3 also gives the specific requirements of the product. Section 3 also discusses the external interface requirements and gives detailed description of functional requirements. Section 4 is for supporting information.

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## 2. Overall Description

This document contains the problem statement that the current system is facing which is hampering the growth opportunities of the company. It further contains a list of the stakeholders and users of the proposed solution. It also illustrates the needs and wants of the stakeholders that were identified in the brainstorming exercise as part of the requirements workshop. It further lists and briefly describes the major features and a brief description of each of the proposed system.

The following SRS contains the detail product perspective from different stakeholders. It provides the detail product functions of Booking Management System with user characteristics permitted constraints, assumptions and dependencies and requirements subsets.

## 3. Specific Requirements

The specific requirements are –

### 3.1 Functionality

Introduction –

This subsection contains the requirements for the Booking Management System. These requirements are organized by the features discussed in the vision document. Features from vision documents are then refined into use case diagrams and to sequence diagram to best capture the functional requirements of the system. All these functional requirements can be traced using tractability matrix.

#### 3.1.1 Staff Authentication

**3.1.1.1** The system shall display the login window to authenticate access.

**3.1.1.2** The system asks the staff to enter CNIC and PASSWORD to access it.

**3.1.1.3** The system must show the login button to grant or revoke access.

**3.1.1.4** The system must match the entered details with their database.

**3.1.1.5** The System shall show an error message upon wrong credentials.

**3.1.1.3.1** The error message must be this, "Wrong CNIC or Password".

**3.1.1.6** The System shows the dashboard after validating correct credentials.

**3.1.1.6.1** The system shows four buttons on dashboard.

**3.1.1.6.1.1** Book Flight

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3.1.1.6.1.2 Cancel Flight

3.1.1.6.1.3 Search Flight

3.1.1.6.1.4 Logout

### **3.1.2 Provide details to book flight**

**3.1.2.1** The system shows table which contains the price of every city.

**3.1.2.2** The system asks following information to book the flight.

**3.1.2.3** The system asks following information to book the flight.

3.1.2.3.1 The System asks Customer Name to be entered.

3.1.2.3.2 The System asks Customer CNIC to be entered.

3.1.2.3.3 The System asks Place of Departure to be entered.

3.1.2.3.4 The System asks Place of Arrival to be entered.

3.1.2.3.5 The System asks Airplane Company to be entered.

3.1.2.3.6 The System asks Ticket Price to be entered.

3.1.2.3.7 The System asks Date of Departure to be entered.

3.1.2.3.8 The System asks Flight Class to be entered.

### **3.1.3 Allow Cancelation of flight ticket**

**3.1.3.1** The system asks following information to cancel the flight ticket.

3.1.2.3.1 The System asks Customer CNIC to be entered.

3.1.2.3.2 The System asks Date of Departure to be entered.

3.1.2.3.3 The System automatically shows Customer Name upon entering details.

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### **3.1.4 Provide Search facility**

**3.1.4.1** The system shall enable user to enter the search text on the screen.

**3.1.4.2** The system shall display all the customer record based on the search.

**3.1.4.3** The system displays the following information of customer record based on the search.

3.1.2.3.1 The System shows Customer Name.

3.1.2.3.2 The System shows Customer CNIC.

3.1.2.3.3 The System shows Place of Departure.

3.1.2.3.4 The System shows Place of Arrival.

3.1.2.3.5 The System shows Airplane Company.

3.1.2.3.6 The System shows Ticket Price.

3.1.2.3.7 The System shows Date of Departure.

3.1.2.3.8 The System shows Flight Class.

### **3.1.5 Detailed invoice for customer**

**3.1.5.1** The system shall display detailed invoice for current order once it is confirmed.

**3.1.5.2** The system shall optionally allow user to print the invoice.

### **3.1.6 Logout from the system**

**3.1.6.1** The system shifts the screen from dashboard to login windows.



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### **3.2 Usability (Non-Functional Requirements)**

#### **3.2.1 Graphical User Interface**

**3.2.1.1** The system shows welcome screen on opening the software.

**3.2.1.2** The system shows organization logo and name on welcome screen.

**3.2.1.3** The system shows the content at the center of the screen.

**3.2.1.4** The system remains on login screen for 5 seconds after verifying correct credentials.

**3.2.1.5** The system shall provide a uniform look and feel between all the web pages.

**3.2.1.6** The system must use these colors: - White, Black, Green, Grey, light brown, Off-white.

#### **3.2.2 Accessibility**

**3.2.2.1** The system shall provide only English language support.

### **3.3 Reliability & Availability**

#### **3.3.1 Back-end database**

**3.3.1.1** The system shall provide storage on databases.

#### **3.3.2 Internet Service Provider**

**3.3.2.1** The system must be offline and does not require any internet connection to work.

### **3.4 Security**

#### **3.4.1 Data Storage**

**3.4.1.1** The application shall never display a staff password. It shall always be echoed with special characters representing typed characters.

**3.4.1.2** The system's back-end database shall only be accessible to authenticated administrators.

**3.4.1.3** The system's back-end databases shall be encrypted.

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### 3.5 Design Constraints

#### 3.5.1 *Standard Development Tools*

**3.5.1.1** The system shall be built using Visual Studio development tool that conforms to Microsoft's GUI standards.

**3.5.1.2** The system shall be build using C# as a programming language.

#### 3.5.2 *Application based software*

**3.5.2.1** The computers must be equipped with windows.

**3.5.2.2** Response time for loading, inserting, searching should take no longer than one minutes.

**3.5.2.3** A general knowledge of basic computer skills is required to use the product

### 3.6 User Documentation and Help System Requirements

**3.6.1.1** As the product is Booking Management System, help system becomes a critical component of the system which shall provide –

**3.6.1.1.1** It shall provide specific guidelines to a user for using the Booking Management System.

**3.6.1.1.2** To implement user help, dialog box shall be provided.

#### 3.6.2 *User Interfaces*

- ✓ The user interface for the software shall be compatible to any windows such as Windows 7, Windows 8, Windows 10 and Windows 11 by which staff can access to the system.
- ✓ The user interface shall be implemented using C#.

#### 3.6.3 *Hardware Interfaces*

- ✓ Since the application must run on a system, following hardware shall require. Such as 2 gigabytes RAM, 1 gigabyte disk space.

### 3.7 Applicable Standards

- ✓ It shall be as per the industry standard.

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#### 4. Supporting Information

Please refer the following document:

1. Use Case Diagram
2. Sequence Diagram
3. Class Diagram
4. State chart Diagram