Daffodil International University

Department of Computer Science and Engineering

SRS REPORT

Assignment No.: 03

Assignment on: Software Requirements Specification (SRS)

Submitted By :

Rabbi Hassan

ID:221-15-5570

Section:61-U

CSE236 | SOFTWARE PROJECT - 2

Submitted to: Md. Golam Rabbany

Dept. of CSE, Daffodil International University

Ashif Hasan
Manager
Airline Flight Booking System
Dhaka 1204

Subject: Application for agreement of Airline Flight Booking System Project.

Dear Mr sarker
I hope you are well. I am writing to propose the development of a comprehensive Airline Flight Booking System that I believe will significantly enhance the efficiency and quality of our airline flight service. I am the member of SoftTech company. I have identified the hole system of your airlines company and decided to create a unique Airline Flight Booking System. Thank you for considering this proposal. I am excited about the potential this project holds for our organization and look forward to the opportunity to discuss it in more details.

Sincerely
Rabbi Hassan
Head
Application development Brach
SoftTech

Table of Contents

Software Requirements Specification for Airline Flight Booking System

1. Introduction

This Software Requirements Specification (SRS) document outlines the functional and non-functional requirements for an Airline Flight Booking System. The system aims to provide a user-friendly platform for passengers to search, book, and manage their airline flight reservations.

2. Overall Description

The Airline Flight Booking System is a web-based application that enables passengers to easily search for and book flights, manage their reservations, and view their travel history. The system provides a comprehensive suite of features to cater to the needs of both regular and occasional travelers.

3. Functional Requirements

3.1 Search and Booking

- Users can search for flights by specifying their desired origin, destination, and travel dates.
- The system displays a list of available flights, including departure and arrival times, airlines, and fares.
- Users can select the desired flight and provide passenger information, including names, contact details, and passport numbers.
- The system validates passenger information and displays the total fare, including taxes and fees.
- Users can proceed to the payment gateway to complete the booking process.

3.2 Payment Processing

- The system integrates with a secure payment gateway to process credit card transactions.
- Users enter their credit card information and confirm the payment.

- Upon successful payment, the system generates and sends an electronic ticket (e-ticket) to the user's email address.

3.3 Reservation Management

- Users can view their upcoming and past reservations.
- Users can cancel or modify their reservations, subject to airline policies and fees.
- The system sends email notifications for booking confirmations, cancellations, and modifications.

3.4 User Management

- Users can create an account to store their personal information and preferences.
- Users can manage their profile information, including contact details and passport details.
- Users can reset their passwords if they forget them.

4. Non-Functional Requirements

4.1 Performance

- The system should respond to user requests promptly and efficiently.
- The system should handle multiple concurrent users without performance degradation.
- The system should be able to process large volumes of data seamlessly.

4.2 Security

- The system should implement robust security measures to protect user data.
- All data transmissions should be encrypted using secure protocols.
- The system should adhere to industry-standard security practices and regularly undergo security audits.

4.3 Usability

- The system should have a user-friendly interface that is easy to navigate and understand.
- The system should provide clear instructions and guidance throughout the booking process.

- The system should be accessible to users with disabilities.

4.4 Reliability

- The system should be highly reliable and available to users 24/7.
- The system should have a robust disaster recovery plan in place.
- The system should undergo regular maintenance and updates to ensure its stability and performance.

5. Conclusion

The Airline Flight Booking System aims to provide a comprehensive and user-friendly platform for passengers to manage their flight reservations. The system adheres to strict security and performance standards, ensuring a reliable and convenient experience for its users.

6.Login

Description:

This function allows a registered user to login his account using his
frequent flyer number with the airline and password. If a user is not registered, the website shall allow the user to enroll first. The system will check both the frequent flight number and password, when a user attempts to login

7.Enrollment

Description:

account with the website. In order to create a new account, the user has to provide required information such as first name, last name, email address and password. Other optional information, such as phone number, credit card information and mailing address, can be provided during the registration process
The system checks if all required data are provided and then will prompt the user to enter additional information, if required. After all required information is provided, the system auto-generates a unique frequent flyer number that the user must use as username for future authentications. The system shall auto-generate this number in less than five seconds

.

8.Book Flights

Description:

The user can use the Reserve Seat function to reserve seats for an airplane flight. The seats to be reserved are initially found through the user's previous bookings. These bookings were previously completed through the book flight function previously completed The system shall display available seats for the departing and returning flights booked by the user. The user selects seats from each flight, where the number of selected seats from each flight is the number that the user booked on that particular flight. Once the flight seats are selected, the user confirms the seat selection

9.Flight Status

Description:

1.A flight number and Date OR
2.Departing/Arriving Cities and Date.

The system will display matching flight information including the following fields:

- Flight Number
- Departure City
- Arrival City

10.Flight Schedules

Description:

This section of the system shall allow a user to query flight schedules
based upon simple input criteria. The user will provide departure and arrival cities, and a departure/return date. If any flights match the criteria, the system will display the following information:

- Flight Number
- Departing City & Date/Time
- Arriving City & Date/Time
- Number of Available Seats

The system shall define a "matching" flight as one that uses the departure/arrival cities at a flight time greater or equal to the time provided by the user. Otherwise, the system shall alert the user that no matching flights can be found.

11.My Account

Description:

This section gives the user the power to view, save, edit or delete the information stored in his/her account. The user can check his/her accumulated points, look at the status of a flight that was booked, cancel a flight that was already booked (optional) and change his/her address, phone number, email or password. This feature is not available for non-registered user.

12.Logout

Description:

The Logout section provides a way for the user to securely log out of the system. This process will save all user operations when he/she exits the system. If a user wishes to continue accessing the website, he/she must log-in again to access user features.

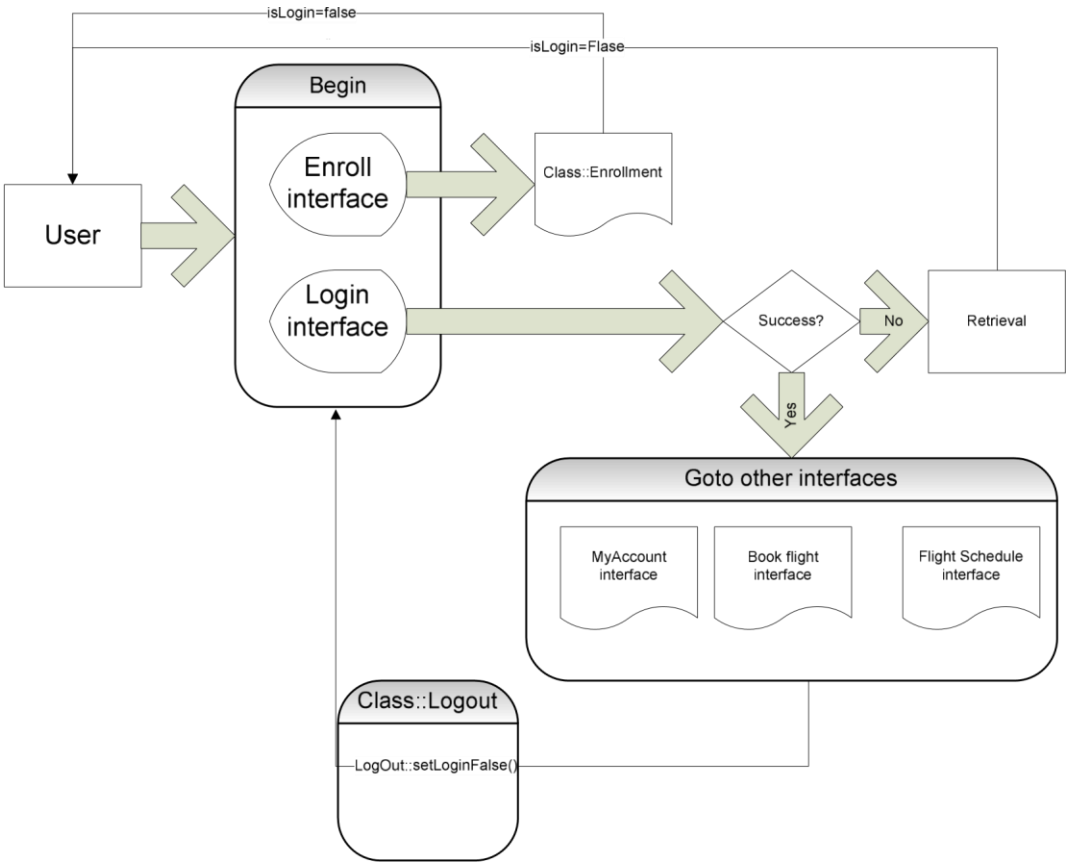
13.User Classes and Characteristics

The main actors in the system are the user, a flight and a Flight Seat. The user will select a flight and book seats on the flight. They will then reserve specific seats on that flight. Brief descriptions of these classes follow:

- User Has properties like Name, Address, Age Associated with Flight Miles accumulated and Credit Card information.
- Flight Has properties like Departing/Arriving City, Departure/Arrival dates and times, Miles, and an identifying Flight Number.
- Flight Seat Has properties of identifying seat number, reserved and flight number Associated to Flight by flight number

Our user may be associated with multiple flights, and many users may be associated with any particular flight. Thus, a many-to-many relationship exists through the act of booking flights. Flights are associated to many Flight Seats. Each Flight Seat is only attached to one Flight. So, this is a one-to-many relationship.
The flight is but an object to be acted upon, so careful emphasis should be placed on satisfying the user in his/her booking experience. The user is our primary customer.

14.Use Case:

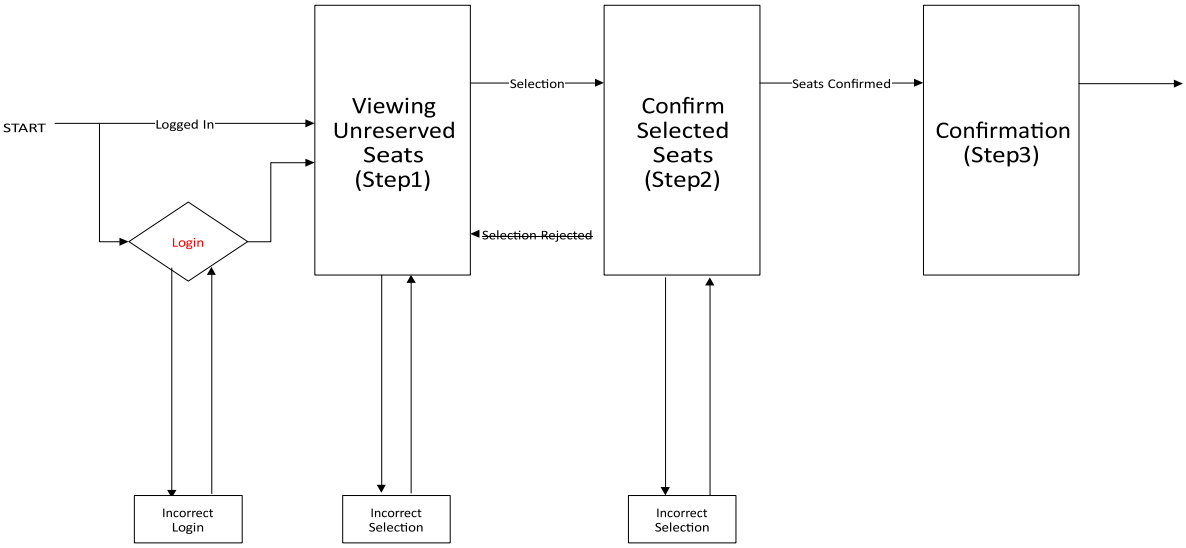


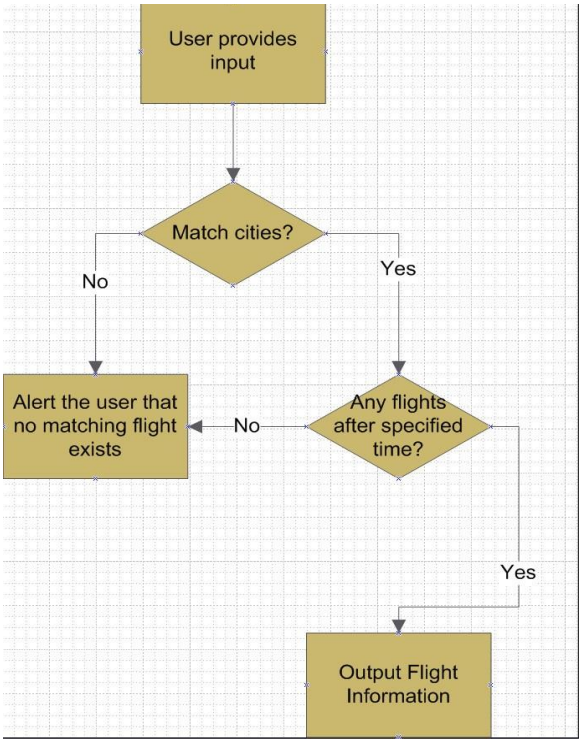
15.Enrollment

Description and Priority:

This function allows unregistered user to enroll and to create a new account with the website. In order to create a new account, the user has to provide required information such as first name, last name, email address and password. Other optional. information, such as phone number, credit card information and mailing address, can be provided during the registration process. The system checks if all required data are provided and then will prompt the user to enter additional information, if required. After all required information is provided, the system auto-generates a unique frequent flyer number that the user must use as username for future authentications. The system shall auto-generate this number in less than five seconds.

16.Activity Diagram:





17.My Account

Description and Priority:

This section gives the user the power to view, save, edit or delete the information stored in his/her account. The user can check his/her accumulated points, look at the status of a flight that was booked, cancel a flight that was already booked (optional) and change his/her address, phone number, email or password. This feature is not available for non-registered user.

17.1 External Interface Requirements

User Interfaces

A Help link will appear on every screen that describes the function of each page to the user. The implementation should be written so that blind users can still interact with the system (using a screen reader.)

17.2 Communications Interfaces

The system must utilize the standard Hyper Text Transfer Protocol (HTTP) to ensure maximum inter-browser compatibility. The client accesses the system through a web browser.

17.3 Other Nonfunctional Requirements

Performance Requirements

- The Airline Website shall have capabilities to accept 500 connections. For each session, system shall guarantee the connection time 5 minutes from last input, after which the connection will be deemed expired. A close operation will be performed when expired. This design is to satisfy each user's usability and connection quality.
- The system shall send out verification request immediately (within 100ms) after the it receives a user submitted form.
- The system shall update all flight status information every 5 minutes.

Security Requirements

- Passwords must be a minimum of eight characters and must contain one to seven digits.

- Email addresses should be verified before the system grants user access. This verification shall be exercised by sending the prospective user a confirmation email after enrollment. This email must contain information specific to completing the enrollment process.

17.4 External Interface Requirements

User Interfaces

A *Help* link will appear on every screen that describes the function of each page to the user. The implementation should be written so that blind users can still interact with the system (using a screen reader.)

Communications Interfaces

The system must utilize the standard Hyper Text Transfer Protocol (HTTP) to ensure maximum inter-browser compatibility. The client accesses the system through a web browser.

17.5 Other Nonfunctional Requirements

Performance Requirements

- The Airline Website shall have capabilities to accept 500 connections. For each session, system shall guarantee the connection time 5 minutes from last input, after which the connection will be deemed expired. A close operation will be performed when expired. This design is to satisfy each user's usability and connection quality.
- The system shall send out verification request immediately (within 100ms) after the it receives a user submitted form.
- The system shall update all flight status information every 5 minutes.

Security Requirements

- Passwords must be a minimum of eight characters and must contain one to seven digits.

- Email addresses should be verified before the system grants user access. This verification shall be exercised by sending the prospective user a confirmation email after enrollment. This email must contain information specific to completing the enrollment process.

18.Appendix:

The airline flight booking system outlined in this software requirements specification will provide a comprehensive and user-friendly platform for customers to search for flights, select their desired itinerary, make a reservation, and manage their bookings. The system will meet all applicable security and performance requirements, and it will be designed to be scalable, maintainable, and extensible.

18. Software Development Methodologies

Ticket exchange platform software methodology is the approach taken to develop and maintain a software platform that allows users to buy and sell tickets to events. This methodology should include considerations for the following:

Secuirity: The platform must be secure to protect users' personal and financial information. This includes implementing measures to prevent fraud and unauthorized access to accounts.

Scalability: The platform must be able to handle a large volume of traffic and transactions. This is especially important for popular events where tickets sell out quickly.

User experience: The platform should be easy to use for both buyers and sellers. This includes having a clear and concise interface, as well as robust search and filtering capabilities.

Compliance: The platform must comply with all applicable laws and regulations. This includes things like data protection and consumer protection laws.

Here is a more detailed overview of the key steps involved in developing a ticket exchange platform:

1. **Requirements gathering**: The first step is to gather requirements from the users of the platform. This includes understanding what features they need and how they want the platform to work.
2. **System design:** Once the requirements have been gathered, the system can be designed. This includes defining the architecture of the platform, as well as the features and functionality that will be implemented.
3. **Development:** The next step is to develop the platform. This includes writing the code, testing the platform, and fixing any bugs.
4. **Deployment:** Once the platform is developed, it can be deployed to production. This includes making it available to users and configuring it to work with the existing infrastructure.
5. **Maintenance and support:** Once the platform is deployed, it needs to be maintained and supported. This includes fixing any bugs that are discovered, as well as adding new features and functionality as needed.

Here are some additional considerations for ticket exchange platform software methodology:

- **Fraud prevention**: Ticket exchange platforms are a prime target for fraudsters. It is important to implement measures to prevent fraud, such as verifying the identity of users and detecting counterfeit tickets.
- **Dispute resolution**: Ticket exchange platforms often have to deal with disputes between buyers and sellers. It is important to have a fair and efficient dispute resolution process in place.
- **Customer support**: Ticket exchange platforms should provide excellent customer support to their users. This includes being responsive to inquiries and resolving issues quickly and efficiently.

19. Testing

Following features will be used for testing

- This Application will be tested with Agile model
- Application will be tested by PHPUnit.
- Application also tested By Codeception.

20. Payment Terms & condition

15% payment will be accepted for the Project proposal and design Submission.

45% payment will be accepted for the Application Development

70% payment will be accepted after application review and Testing

100% payment will be accepted after handover the fully completed Application

21. Responsibility

The entire Application has been done by MMK Mahin and all the responsibility including terms and condition will goes to him.

22. Contact Us

You can get in touch with us in any of the below ways:

Golam Rabbany
By Phone: +8801787774996

By Email
grabbany1234@gmail.com

23. Agreement Signed By:

……	……..	……
Client Signature Ashif Hasan Managing Director	Order Provider Signature Rabbi hassan Officer SoftTech	Authority Signature Golam Rabbany Managing Director (MD) SoftTech