BCS (H) FINAL PROJECT

Flight Schedule and Reservation System

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Project Advisor

Mr. Nauman Nadeem

Project Member

Rehan Hamayoun 022124-171

School of Science and Technology

University of Management and Technology

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By

Rehan Hamayoun 022124-171

University of Management and Technology

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Advisor signature

Dedication

“I am very pleased to dedicate this project to my respected parents and family members because without their support I am not able to meet this project. May they live long and help us in every matter”

Abstract

The Flight schedule and Reservation system is an effort of automating the airline system in Pakistan. This system will enable an efficient and reliable management of the airline. The department is moving towards automation in order to keep up with the demands of the modern time, my objective is to successfully automate the airline system so that i can gain experience and help our country develop.

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The system which I am going to develop as my final project is Flight Schedule And Reservation System .This document is develop to serve as a starting point of the software development process.

1.1.Project/Product Feasibility Report:

1.1.1. Technical Feasibility

The system which is to be developed is desktop based, and visual basic technology along with Microsoft SQL Server will be used to develop it. I have got the status to use these technologies. The software required for doing this project is easily available.

1.1.2. Operational Feasibility

The staff that will be designed software so that it is easy to use. They will additionally provided with help and guidance (if needed) to operate the software.

1.1.3. Economic Feasibility:

There is no need for purchasing the tools and license used during the development of the project. All tool and technologies that are required during development are already with the development team. This makes the development economically feasible. Only costing factor is the effort of the project members and time that is utilized in project development. The maintenance cost and operation cost is there

1.1.4. Schedule Feasibility:

Time is important factor .We have got the required team and resources to complete the project on time. I am in the final semester of BSCS program and there is sufficient time available to us for completing this project on the required date and time.

1.1.5. Specification Feasibility:

I have a clear picture of what I have to develop and what the system must have in it to be successful. I will have a complete and clearer picture when I am going through with the requirements specification and gathering phase. The requirements are becoming cleared and definite with the passage of time

1.1.6..Information Feasibility:

The information regarding its completion, reliability, and meaningfulness is ensured by the use of the internet, books and software developments requirements .The project will itself be informative and helpful to the concerned authorities after completion.

1.1.7. Motivational Feasibility:

The client’s staffs that will actually using the system are motivated to use this system as one of the goals of the system is helping them with their work.

1.1.8. Legal & Ethical Feasibility:

The system is free of any infringements or liabilities. It is not violating any legal or ethical values.

1.2. Project Scope:

The scope of this system consists of:

1. A Microsoft server that provides interaction with the system to the users that are physically distributed.
2. A centralized database.
3. The system will have adequate redundancy to ensure fail-safe operation.
4. The system will be accessible to all who have a valid login: users with a valid loin can access the system and do the required task where computer facilities are available.

1.3. Tools and Technology:

Flight Schedule and Reservation System is complex software, which makes selection of the technologies required for the implementation of the project, crucial and important.

1.3.1. Front-End Technology (VB):

1.3.2. Back-End Technology (Microsoft SQL Server):

For saving the data and user information along with efficient retrieval of data, the Sql Server will be used. The reason of using this technology is that Sql Server is an open source relational database management system (RDBS) that uses Structured Query Language (SQL), the most popular language for adding, accessing, and processing data in a database. Microsoft Sql Server is noted mainly for its speed, reiability, and flexibility. Regarding our project there will be online access to database updating and deletion that require speed and efficiency. Therefore, Microsoft Sql Server is suitable for our project as a back end technology.

1.4. Vision Document:

The Flight schedule and Reservation system is an effort of automating the airline system in Pakistan. This system will enable an efficient and reliable management of the airline. The department is moving towards automation in order to keep up with the demands of the modern time. Our objective is to successfully automate the airline system so that we can gain experience and help our country develop.

Our scope in this project is to provide a desktop based information system for the airline. This information system for the airline .This information system will be used by the airline staff .The staff will be directly able to access all the airline facility through this flight scheduling and reservation desktop based software.

1.5. Risk list:

The possible risks that can occur during the course of the project are listed below:

#	Risks	Risks Type	Probability	Mitigation Actions
1.	The schedule pressure can force some function points to be changed or dropped from being implemented as planned in the planning phase	Schedule Risk	50%	▪ We have divided the whole process in modules. ▪ All activities are listed on the network diagram with proper planning, & sufficient time allocated to each activity.
2.	The requirements can change over time.	Scope Risk	40%	▪ Sufficient time is provided for requirement elicitation ▪ The applicable changes will be handled if possible
3.	The product scope can keep expanding	Scope Risk	30%	▪ The product will be built by using relatively independent modules so that any new functionality can be added.
4.	The transaction time can be a bit higher depending upon the internet speed	Technological Risk	25%	▪ A relatively simple and efficient solution will be found and tried
5.	This is the largest project the team has ever attempted, so it can result in some pressures and problems because of the lack of experience	Organization Risk	15%	▪ Experienced people in the related fields will be consulted ▪ Lack of experience will be reduced by the usage of knowledge and technology.
6.	Although the team members have appropriate skills, but they	People Risk	15%	▪ Experienced people in the related fields will be consulted
7	The users of the system might need some time to get familiarize with the system	Technological Risk	10%	▪ The user will be provided with sufficient on the hands help to learn the usage of the system early and easily.

2.1 INQUIRING A FLIGHT

UC_ID	UC_01
UC_Name	Inquiring a flight
Pre-Condition: Database should be running and a schedule should be available.	
Description: This use case describes the process of inquiring a flight	
Basic Flow: 1. This use case is initiated when user inquires for a particular destination on the given date 2. The requested destination with specified date is checked in the system 3. System will check whether the flight is scheduled or not 4. If flight is scheduled then display its information. 5. This use case concludes when user requested information is displayed	
Alternative Flow: If the requested flight is not scheduled on the date then display a message.	
Post-Condition: The inquiry for the flight is displayed to the airline.	
Extensions:	

2.2 INQUIRING A SEAT

UC_ID	UC_02
McNamee	Inquiring a seat
Pre-Condition: Database should be running and a schedule should be available.	
Description: This use case describes the process of seat flight	
Basic Flow: 1. This use case is initiated when user asks for a seat with its Classification 2. (Economy IP etc). 3. The system searches the flight number from the destination given and checks seat with its category. 4. If the seat is found then its availability is prompted. 5. This use case concludes when user's query about the seat is answered	
Alternative Flow: If the seat which user was inquiring for was not found then other seats on the plane are displayed	
Post-Condition: The inquiry for the seat is displayed to the airline	
Extensions:	

2.3 BOOK A SEAT

UC_ID	UC_03
UC_Name	Book a Seat
Pre-Condition: The flight must be scheduled for that destination	
Description: This use case describes the process of booking a seat in a plane	
Basic Flow: 1. This use case is initiated when the user wants to book a seat according to his requirement 2. The required seats are searched according to the requirements 3. If seats are vacant then confirmation is sent to the user and is asked for booking 4. User provides details about credit card User's credit card is checked for the debt balance so that he is in the position of buying tickets 5. Record the entry against each seat ensuring that the seat is booked. 6. Create a confirmation message for the user containing all information about the flight including a seat numbers and a security code. 7. This use case concludes when the user receives the confirmation receipt.	
Alternative Flow: Step4: If seats (with specified Category) are not found vacant then offer him other seats combination. Step 5: If there is no balance in the credit card, send a booking rejection notice to the member.	
Post-Condition: User must receive the confirmation and update the booked seats	
Extensions:	