Spicejet SRS Project - srs

Software Engineering (Lovely Professional University)

Software Requirement Specification(SRS)

For

SpiceJet

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Table of contents:

1. Introduction
    - 1.1 Purpose
    - 1.2 Scope
    - 1.3 Definitions
    - 1.3.1 Overview Reference
    - 1.4 Additional Information
2. General Description
3. Functional Requirement
    - 3.1 Description
    - 3.2 Technical Issues
    - 3.3 Measures
    - 3.4 Measuring Service Quality
4. Interface Requirement
    - 4.1 GUI Faculty of engineering and
    - 4.2 Hardware Interface
    - 4.3 Software Interface
5. Performance Requirement
6. Design Constraints
7. Other Non-Functional requirement
    - 7.1 Security
    - 7.2 Reliability
    - 7.3 Availability
    - 7.4 Maintainability
    - 7.5 Portability
8. Operational Scenario
9. Booking process
10. Future work
11. Abstract.....

Introduction

India is one of the fastest growing aviation markets in the world. With the liberalization of the Indian aviation sector, the industry has witnessed a transformation with the entry of the privately owned full service airlines and low cost carriers. As of March 2009, private carriers accounted for around 82% share of the domestic aviation market. The players in the current Indian domestic market include low cost carriers like SpiceJet, GoAir, Indigo along with Premium airlines like Jet Airways, Kingfisher and Air India (domestic). The sector has also seen a significant increase in number of domestic air travel passengers. Some of the factors that have resulted in higher demand for air transport in India include the growing middle class and its purchasing power, low airfares offered by low cost carriers, the growth of the tourism industry in India, increasing outbound travel from India and the overall economic growth of India. In this research a comparative study has been done on six major airlines using perceptual mapping. Responses were recorded from frequent fliers across six variables which are most important for any airline customer. For the purpose of the study the flying experience was divided into three stages- namely, pre-flight, in-flight and post-flight experience. A questionnaire was designed in such a way that the same sets of variables were measured among the customers of the six airlines under study. The objective of this study was to understand the satisfaction levels of the airline customers. The study measured the expected level of service quality using a Likert type scale. The six attributes considered for the study are: Ease of in; Baggage handling; in flight experience; on time performance of the flights and Overall value for money.

1.1 Purpose

The purpose of this document is to provide a consistent complete description of the requirements for the software of an SpiceJet .

The requirements will be presented using textual descriptions to explain concepts, different types of diagrams to illustrate complicated interactions, and tables to relate relevant information.

The intended audience of this document is all of the stakeholders for a project involving the development of SpiceJet software. This includes, but is not limited to, software developers, project managers, quality assurance personnel, and customers.

A questionnaire was designed with above set of variables and responses of 150 fliers of six domestic airlines viz., GoAir, Kingfisher, Jet Airways, Indigo, SpiceJet and Air India (Domestic)

was recorded on a five point Likert scale. About 150 respondents were interviewed from different places in NCR: Delhi, Gurgaon, Noida, Greater Noida and Faridabad.

A convenient sampling method was followed. Perceptions of only those travellers were captured who had actually undergone the experience of travelling by an airline. The range for the number of respondents was between 103 (for GoAir) and 133 (for SpiceJet).

1.2 Scope

SpiceJet services provide better comforts to the passengers last few Years .SpiceJet in the cheapest air travels in India

It gives the better comforts in domestic flights as well as in international flights. It have online sites for booking the tickets and food and beverage For travelling.

This site is useful in Mainway to book the tickets and to cancelled the tickets.

This site is provides the coupon for special packs and bonus ticket bookings for festival offers also. It provide cheap and better services.

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1.3 Definitions

SpiceJet

SRS- Software Requirement Specification

GUI- Graphical User Interface Stockholder- The person who will participate in system

Ex. passenger, Administrator, Visitor etc.

1.3.1 References

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Jump up ^ "Kalanidhi Maran buys 37.7 p.c. stake in SpiceJet". The Hindu. 13 June 2010. Retrieved 8 August 2010.

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1.3.2. Literature Review

Perceptual mapping has been used as a strategic management tool for about thirty years (Green and Wind, 1975). It offers a unique ability to communicate market structure analysis-i.e., the complex relationships among marketplace competitors and the criteria used by buyers in making purchase decisions and recommendations.

Its powerful graphic simplicity appeals to senior management and can stimulate discussion and strategic thinking at all levels of all types of organizations.

Perceptual mapping has been used to satisfy marketing and advertising information needs related to product positioning (DeSarbo and Rao, 1984; Wind, 1982), competitive market structure (Srivastava et al., 1984), consumer preferences and brand perceptions (Cooper, 1983; Pegels and Sekar, 1989; Dowling, 1988; Day et al., 1979).

Perceptual maps satisfy these types of information needs by analysing and then translating consumers' numeric ratings, brand similarity data and brand preference data into a visual representation of how those consumers view the set of brands and products.

The most common use of perceptual mapping in advertising and marketing research relates to brand perceptions. However, perceptual mapping is appropriate for exploring perceptions of any set of objects, for example, types of television programs or political candidates. Perceptual maps can also be used to determine similarities and differences across groups of consumers.

There are two approaches to perceptual mapping: attribute based and non-attribute based. Attribute based approaches, used in this study, require a respondent to evaluate a set of brands on a large number of specific attributes, typically those attributes felt to

influence how consumers perceive, evaluate and distinguish among brands and products. All mapping techniques attempt to show the comparative differences in how products or services are rated on a given set of attributes.

The validity of a map depends on both the overall set of attributes and brands in the study as well as the subset of attributes and brands evaluated by each respondent.

2. General Description

The SpiceJet provide the better options for the customer to travel in the domestic and international flights . This services is easy to access by their services . It is globally developed by the travelling list day by day in the world .

2. Functional Requirement

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be -

3.1 Description

SpiceJet is a low-cost airline headquartered in Gurgaon, India. It is the fourth largest airline in the country by number of passengers carried, with a market share of 13.1% as of February 2016. The airline operates 306 daily flights to 41 destinations, including 35 Indian and 6 international destinations from its hubs at Delhi and Hyderabad.

Established as air taxi provider ModiLuft in 1984, the company was acquired by Indian entrepreneur Ajay Singh in 2004 and re-christened as SpiceJet.

The airline operated its first flight in May 2005. Indian media baron Kalanidhi Maran acquired a controlling stake in SpiceJet in June 2010 through Sun Group which was sold back to Ajay Singh in January 2015.

The airline operates a fleet of Boeing 737 and Bombardier Dash aircraft.

3.1.1 Registration

If passage want to book the tickets they want to register the on that sight before Booking the tickets.

3.1.2 Login

passenger logins to the system by entering valid user id and password for the booking tickets.

3.1.3 Cancelled

When the passenger was postpone are prepone the travelling date they cancelled the Booked tickets.

3.14 Payment

For passenger there are many type of secure billing will be prepaid as debit or credit card, check or bank draft. The security will provide by the third party like Pay-tm etc.

3.1.5 Logout

After booking the tickets the customer will logged out.

3.1.6 Report Generation

After all transaction the system can generate the portable document file (pdf) and then sent one copy to the customer's Email-address and another one for the system database to calculate the monthly transaction.

3.2 Technical Issues

This system will work on client-server architecture. It will require an internet server and which will be able to run PHP application. The system should support some commonly used browser such as IE etc.

3.3 Measures

Sample characteristics: The six domestic airlines considered for the study are GoAir, Kingfisher, Jet Airways, Indigo, SpiceJet and Air India (Domestic).

The major reason to consider these airlines is that they represent the majority of people travelling by air in India. These airlines consist from full fare to low priced airlines.

The targeted sample size was around 110 per airline and the achieved was as in Table 1. Questionnaire it was pre-tested with 20 respondents.

3.4 Measuring Service Quality

Measuring service quality are Extensive research has been conducted in the field of service quality (Fisk et al., 1993; Cunningham et al., 2004). Review of literature suggests that initial publications on airline service quality appeared in 1988 (Gourd in, 1988).

Fick and Ritchie (1991) and Gourd in and Kloppenburg (1991) were the first to apply the service quality gap model to the airline industry in 1991.

Fick and Ritchie (1991) used the SERVQUAL scale to measure perceived service quality within several service industries including the airline industry.

Measurement and management of service quality is the fundamental issue for the survival and growth of airline companies. Cunningham et al. (2002) have measured service quality based on SERVPERF which is a set of multi-dimensional measures of customer evaluations of service quality.

Wen Li and Chen (1998) studied the quality evaluation of domestic airline industry using modified Taguchi loss function with different weights and target values.

They proposed three quality categories with ten identified variables and service quality of domestic airline is quantified accordingly. According to Zeithaml et al. (2008), the concept of satisfaction is influenced by five variables viz., service quality, product quality, price, situation and personality.

Natalia and Subroto (2003) combined the variables of product quality and service quality and studied the customers' perception of service quality in the domestic airline services of Indonesia.

So far service quality of airlines has been studied based on industry measures, SERVQUAL, SERVPERF, Taguchi loss function and Zeithaml and Bitner Model. This study attempts to examine the satisfaction level of service quality of domestic airline travellers in India for six airlines viz., GoAir, Kingfisher, Jet Airways, Indigo, SpiceJet and Air India

(Domestic) across six airline travel process variables viz., Ease of bookings through the website/ Call centre; Hassle free check in/Efficient ticketing staff/Regular announcements during flight delays at airport; On Time Performance of flights; In flight Experience; Baggage handling and Value for money.

4. Interface Requirement

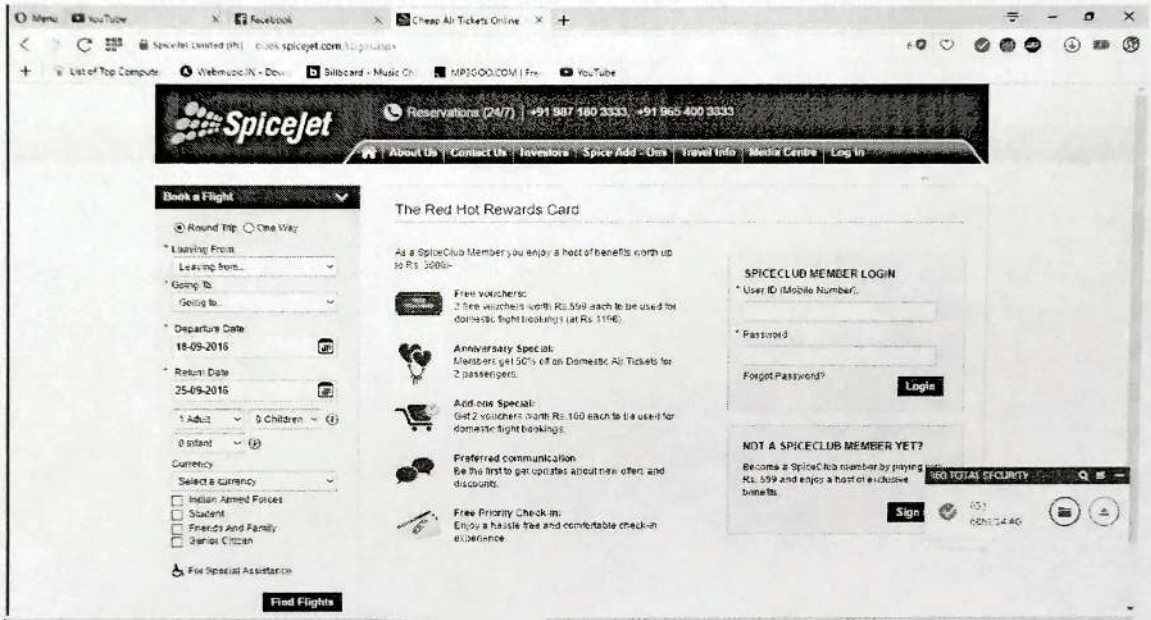
Various interfaces for the flights could be

1. Login Page
2. Registration Form
3. There will be a screen displaying information about flights and their schedules.

4. If the customers select any flight then it will open another tap about the flight information.
5. After all transaction the system makes the selling report as portabledocument file (pdf) and sent to the customer E-mail address.

4.1 GUI

1. Login Page



4.1 Hardware Interface

The System must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN — LAN, Ethernet Cross-Cable.

4.1 Software Interface

The system is on server so it requires the any scripting language like PHP, VBScript etc. The system require Data Base also for the store the any transaction of the system like MYSQL etc. system also require DNS (domain name space) for the naming on the internet. At the last user need web browser for interact with the system.

5. Performance Requirement

There is no performance requirement in this system because the server request and response is depended on the end user internet connection.

6. Design Constrain

The system shall be built using a standard web page development tool that conforms to Microsoft's GUI standards like HTML, XML etc.

7. Other non-Functional requirement

7.1 Security

The system use SSL (secured socket layer) in all transactions that include any other confidential passenger information. The system must automatically log out in all customers after a period of inactivity.

The system should not leave any cookies on the customer's computer containing the user's password The system's back-end servers shall only be accessible to authenticated administrators.

Sensitive data will be encrypted before being sent over insecure connections like the internet.

7.2 Reliability

The system provides storage of all databases on redundant computers with automatic switchover. The reliability of the overall program depends on the reliability of the separate components.

The main pillar of reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes.

Thus the overall stability of the system depends on the stability of container and its underlying operating system.

4.1 Availability

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. In case of a of a hardware failure or database corruption, a replacement page will be shown.

Also in case of a hardware failure or database corruption, backups of the database should be retrieved from the server and saved by the administrator. Then the service will be restarted. It means 24 X 7 availability.

4.2 Maintainability

A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re -initialization of the program will be done. Also the software design is being done with modularity in mind so that its maintainability can be done efficiently.

4.3 Portability

The application is HTML and scripting language based.

So The end-user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.

An end-user is use this system on any OS; either it is Windows or Linux.

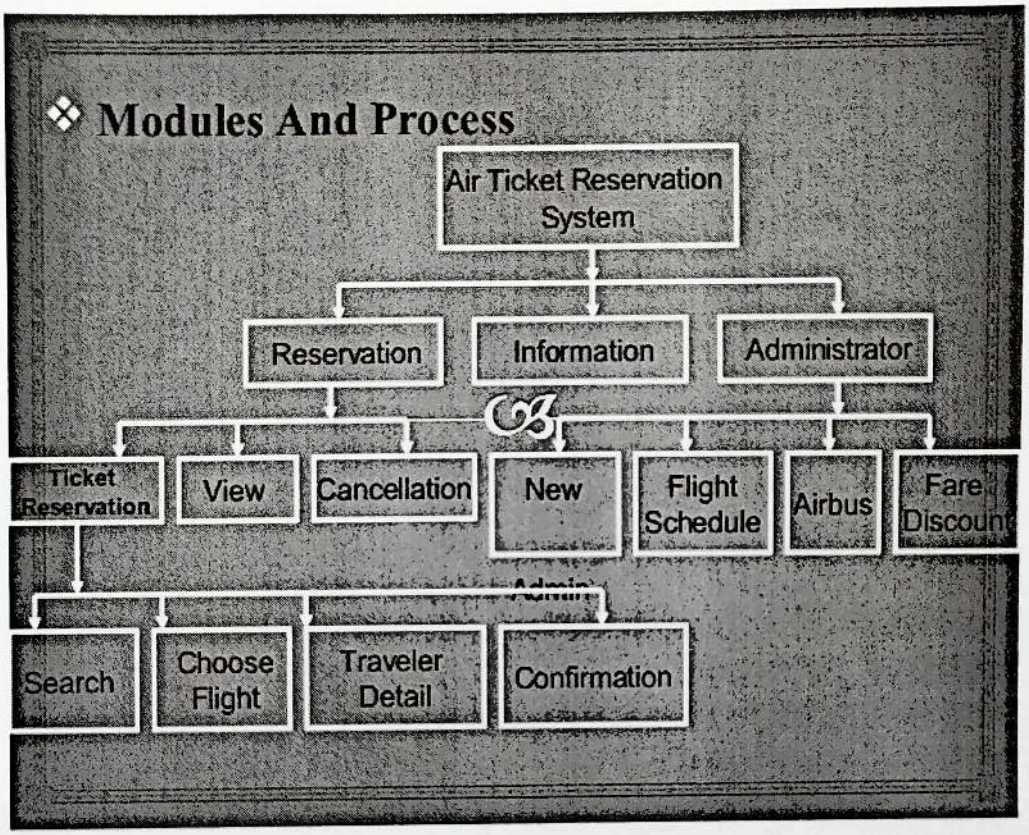
The system shall run on PC, Laptops, and PDA etc.

5. Operational Scenario

The customer wants to book tickets. the system shows all flight schedules to customer. If customer select any flight then it shows the flight timing and over view about flight.

The payment will made with credit card or bank check. If customer wants to cancel before booking then he or she can cancel it. Customer can see booking report on account detail.

6. Booking Process



11. Future work

The following section discusses the work that will be implemented with future releases of the software.

1. Detailed categories: Future work could involve adding more categories which are more detailed and have additional information.

2. Watch/Wish List: see the facilities and services of the fight before booking the tickets any order in the journey .

3.. Enhanced User Interface: Work on enhancing the user interface by adding more user interactive features.

4.. Recommended Booking: The site shows the better offers to the customers by the Help of social medias like Facebook and Gmail etc.

5.. Payment Options: Add different payment options, such as Visa, MasterCard, PayPal, etc., where a user can also save the card information for later checkouts.

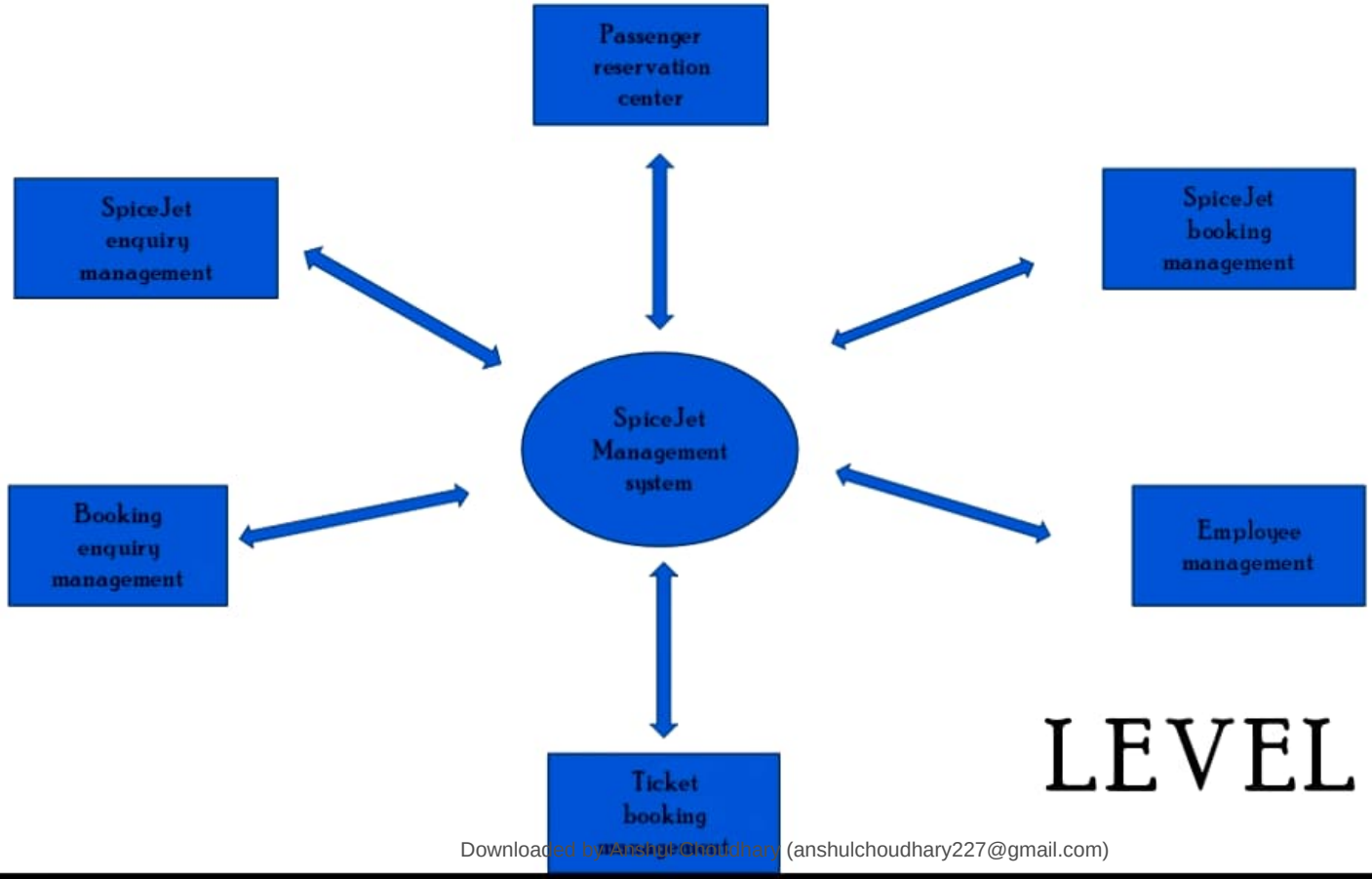
6.. Booking Options: Booking the tickets of domestic ,international and food and beverages.

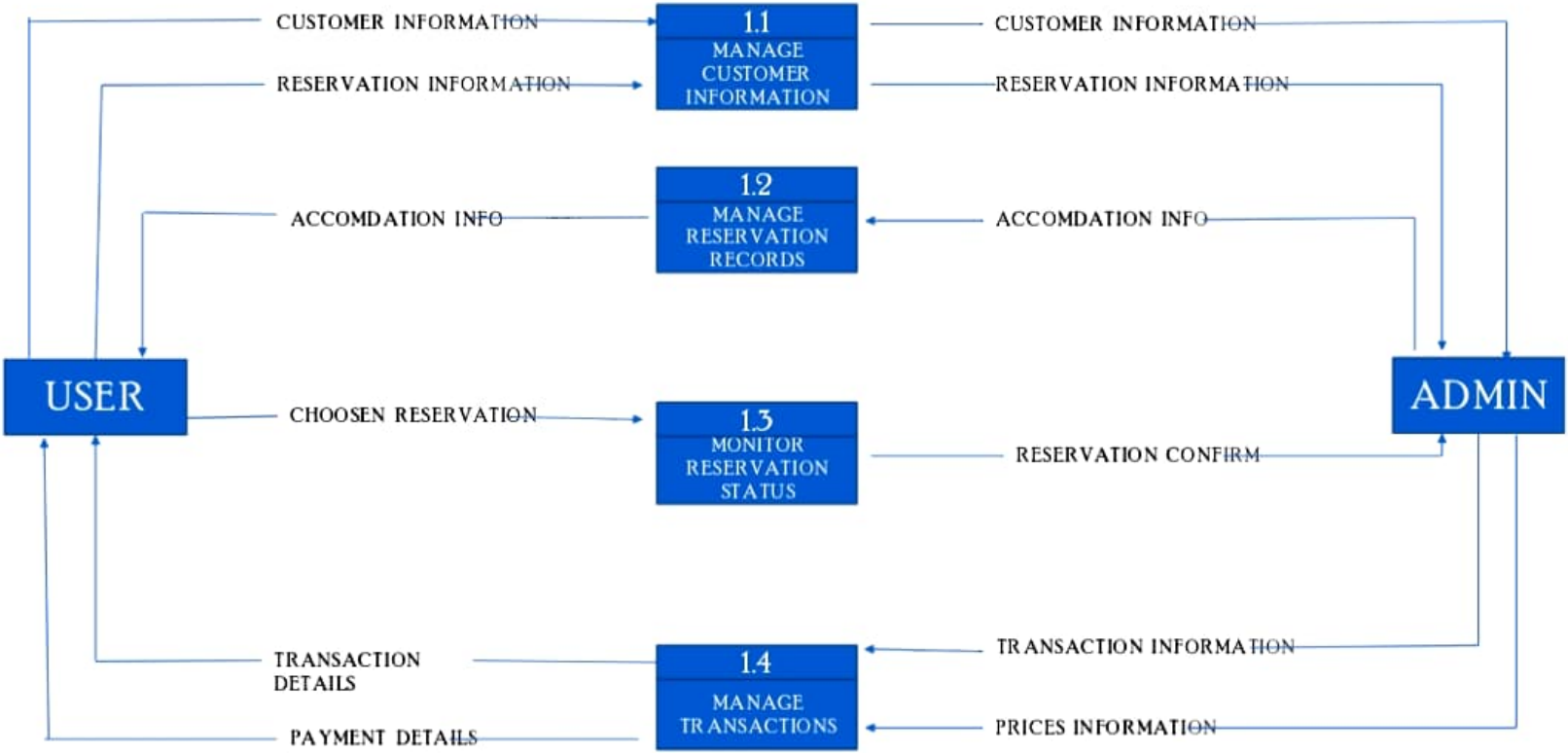
10.Absract:

A comparison of customer satisfaction based on service quality as perceived by air travellers was done among six domestic airlines.

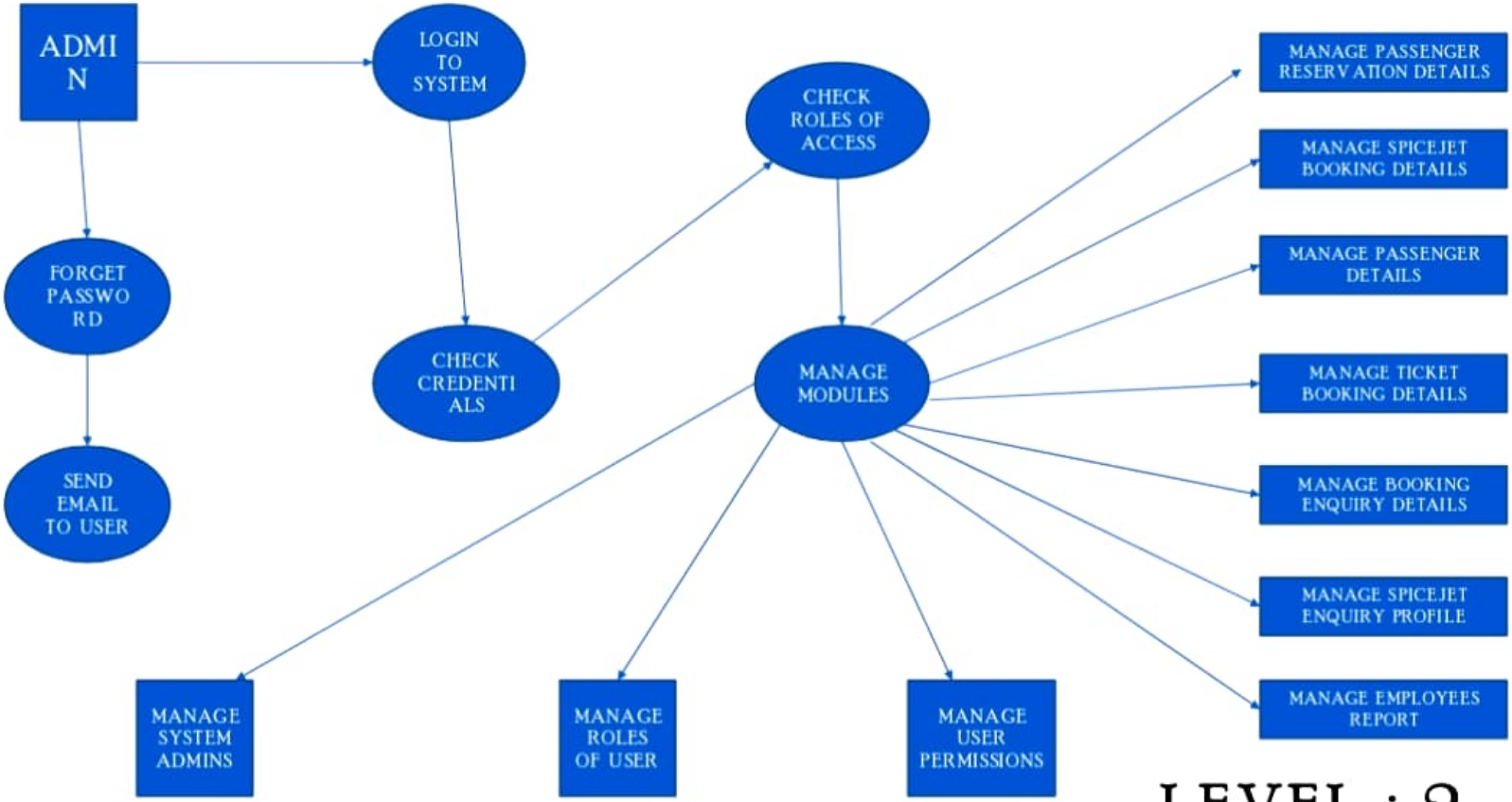
Literature review suggested that flying experience has three stages: Pre-flight, in-flight and post-flight and a set of six variables can be used to measure satisfaction.

These variables are: Ease of bookings through the website/call centre; Hassle free check in/efficient ticketing staff/regular announcements during flight delays at airport; on time performance of flights; in flight experience; baggage handling and value for money





LEVEL 1



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