Travel Agency Management System

SOFTWARE REQUIREMENTS SPECIFICATION DOCUMENT

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1. Introduction

1.1 Purpose

The purpose of a travel agency management system is to streamline and automate the many operations involved in running a travel agency. A travel agency management system is a software program that aids in the administration of travel bookings, reservations, payments, client data, and other company processes.

One of the primary purposes of a travel agency management system is to increase a travel agency's efficiency by minimizing manual effort. With this system, the travel manager and cashier can access all of their clients' information, including booking history, in one spot, allowing them to deliver better and more customized customer care.

A travel agency management system can assist travel personnel in more successfully managing their inventory of flights and other travel services, allowing them to optimize pricing and enhance revenue management. Entire, a travel agency management system may assist employees enhance efficiency and improve the overall client experience, resulting in better business success.

1.2 Scope

The scope of the travel agency management system is to reduce the paper work for the cashier and each transection performed in travel agency in digitalized. Which will prevent from Concealment of assets. This system allows the cashier and manager to access and tally the ledgers of different travel agents and banks.

1.3 Definitions, Acronyms, and Abbreviations.

Tkt: Ticket

DP: Direct passenger

GB: Gigabyte

RAM: Random access memory

1.4 References

The functional requirements used in this document is given by the cashier of the Fahad international travels services.

These are the requirements of the current system using in Fahad international travels services. Website link of the Fahad international travels services agency is below.

Visit Travel agency website

2. The Overall Description

The travel business is a highly competitive and dynamic industry that demands effective operations management to be successful. Travel agencies, in particular, must manage multiple duties such as airline booking, client data management, and financial transactions. Travel agencies are increasingly using travel agency management systems to simplify their company processes in order to meet these difficulties.

The criteria of the travel agency management system are intended to improve the system's financial management capabilities. The system allows personnel to view, amend, remove, and insert entries in the DP ledger, which aids in keeping track of DP financial records. This function also aids in the generation of reports and analytics.

The system's need is to handle the ledgers of other travel brokers. This tool allows travel agencies to handle other travel agents' financial data, such as commissions, reservations, and other relevant information. This functionality is very handy when travel agencies collaborate with other travel agencies to provide joint services. Also, system limits money transfers to only managers. This function aids in the prevention of unlawful transactions, the integrity of the system, and the reduction of the risk of financial fraud.

In short, the travel agency management system helps to improve the financial management capabilities of travel agencies, which is crucial for their success and profitability.

2.1 Product Perspective

This travel agency management system is intended to simplify and improve a travel agency's financial management skills. This system allows travel agencies to conveniently manage airline reservations, customer data management, and financial transactions all in one location. Our solution enables workers to handle financial records and provide reports and analytics, providing useful insights into travel businesses' financial performance.

Furthermore, travel agency management system allows travel businesses to manage the financial data of other travel agents, which is very important when working on joint services. Our technology also restricts money transfers from one bank account to other bank account or money transfer to airline to managers exclusively, which cause lowering the danger of financial fraud. Other travel agencies may use our travel agency management system to be competitive and successful in the dynamic and fast-paced travel business.

2.1.1 System Adaptation Requirements

To run and use the travel agency management system a use must have

i. User must install a Microsoft window 7 or later on their machine.

ii. User's computer must have a 2 GB of RAM and 10 GB of empty storage on his computer in order to rum the system

iii. User have must a basic knowledge of basic computer fundamentals.

2.2 Product Functions

The travel agency management system consists of following modules

i. DP ledger

This module in travel agency management system allows the travel agency staff to read, update, delete and create the entry of DP's ticket in DP's ledger

ii. Travel Agent

In this part Travel agent account transactions of the amount deposited and ticket booking amount is stored by the system in computer storage.

iii. Bank

In Bank module the bank history is stored by system in computer storage. Which include the transections performed by the agency manager and current balance.

iv. Administrator

Administrator consist of manager and cashier. Cashier manages the ledgers of agents DP ledger and office expenses while manager manage the banks transection and airline affairs.

2.3 User Characteristics

The present manual system used by the travel agency is digitalized by the bank management system. This system also maintains the office expenditures in the system together with the money it has collected from the agent or DP of the ticket in computer memory. Only the manager may send money from the bank account to the airline, and the travel agency management system will keep track of the airline's 15-day sales report. The system will keep all bank transactions and statements in its memory.

2.4 Assumptions and Dependencies

a. A Direct traveler may only purchase and reserve a ticket after making the entire payment.

b. Passenger must be in possession of a valid passport and visa for the destination country.

c. Only a manager can manage the bank affairs and send money to an airline before the sale report date.

d. The system administrator's PC must have a dual core CPU, 2GB of RAM, and 10GB of free storage space.

e. Administrators need to understand the principles of computers.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 Hardware Interfaces

This travel agency management system has various hardware interface which could be

a. Touch screen or monitor for display
b. Keyboard and mouse for input of query in the system
c. Battery backup for the system to operate
d. Printer for printing a hard copy of the ledgers
e. 2GB of ram with 10GB of empty space computer.

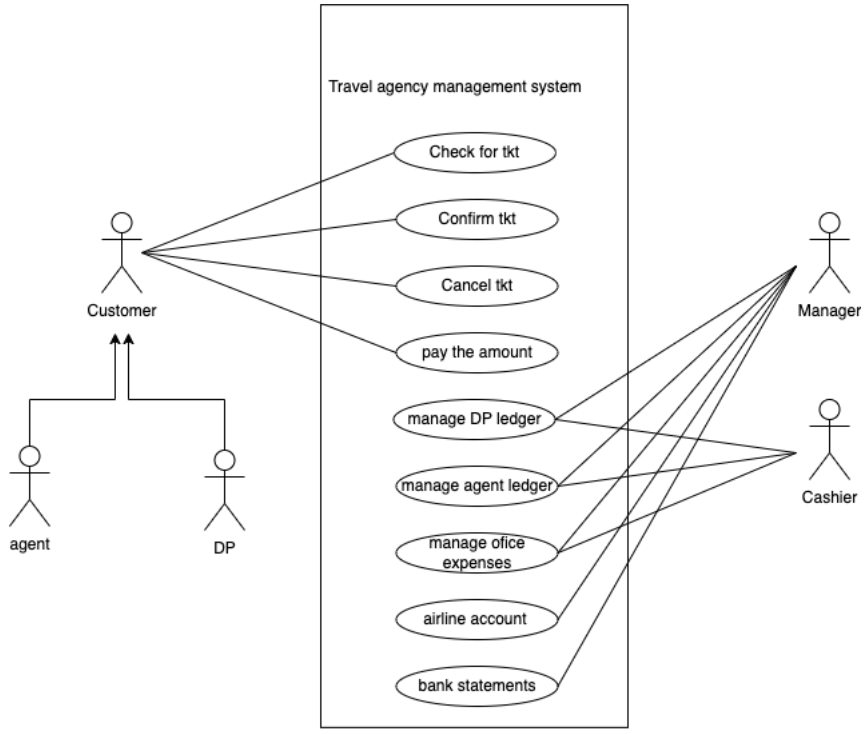
3.1.2 Software Interfaces

a. A windows operating system of 64 bits architecture.
b. Latest graphics and display drivers.

3.2 Functional Requirements

I. System must have a DP ledger section in which the admin can insert the transections of the amounts of the DP tickets.
II. Only a customer can check for a ticket if the costumer has a passport and a valid visa if the customer wants an international ticket.
III. Each travel agents deals with the travel agency has a separate ledger in which only his account statements are recorded.
IV. The daily office expenses are recorded by the admin in the system in office ledger.
V. Airline accounts is managed in the system only by the manager of the travel agency. In airline account the sales reports and commissions records are stored.
VI. In the system each bank has separate ledger in which the banks details are stored by the admin and only manager ca access it.
VII. Manager has a separate username and password for login the system and access the accounts and ledgers stored in the system.

3.3 Use Case



3.3.1 Use Case #1

Name: Check for tkt

Priority: 01

Actors: agent, DP

Summary: A customer came to office or call to office for checking a ticket to different place on different dates. Then an admin/office staff helps him to choose the correct flight.

Pre-Condition: when customer calls or came to office then the office must have at least one staff. And open.

Post-Condition: The customer must have a passport and a valid visa.

Uses: None

Extends: None

Normal course of events: 1. Use case starts when customer came or call to office.

2. user tells the office staff to check for a ticket by telling a date, arrival and departure points.

3. A staff member respond by telling the price of the ticket.

Alternate path: 1. Customer don't come to office.

Assumption & Exceptions: 1. The customer must have a passport and a valid visa.

3.3.2 Use Case #2

Name: Confirm tkt

Priority: 01

Actors: agent, DP

Summary: A customer came to office select the price and confirm it by paying the full amount of the ticket and then the transaction is stored by the system in computer memory.

Pre-Condition: Customer must select the ticket before the confirmation of the ticket. Customer must have a valid visa

Post-Condition: When customer purchase a ticket, the transection must be stored in the system. The Customer must pay the full amount of the ticket.

Uses: None

Extends: None

Normal course of events: 1. Customer came or call to office.

2. user tells the office staff to check for a ticket by telling a date, arrival and departure points.

3. A staff member respond by telling the price of the ticket.

4. Customer confirm the ticket by telling to the staff member and paying the full amount of the ticket.

5. A staff member confirm the ticket in the airline system and enter the details of the costumer payment in the system.

Alternate path: 1. Customer don't make a full purchase.

2. Flight ticket is released after 3 hours.

Assumption & Exceptions: 1. The customer must have a passport and a valid visa.

2. Before purchasing the ticket a payment must be paid before the confirmation of the ticket.

3. after paying the full amount the ticket is booked and transection is stored in the memory by the travel agency management system.

3.3.3 Use Case #3

Name: Cancel tkt

Priority: 01

Actors: agent, DP

Summary: A customer booked a ticket but now the customer wants to cancel the airline ticket then he came to office and cancel the ticket.

Pre-Condition: Customer must purchase the airline ticket before canceling it. And the ticket must not be used.

Post-Condition: When customer cancel the ticket, the cancelation amount is deducted the the amount and the transection is stored by the system.

Uses: None

Extends: None

Normal course of events: 1. Customer came or call to office.

2. user tells the office staff to cancel my ticket.

3. A staff member respond by telling the cancelation charges and checking whether the ticket is used or not.

4. Customer confirm the ticket cancelation, and amount is payed back after deduction of the cancelation amount.

Alternate path: 1. Customer don't confirm the cancelation.

2. use case ends.

Assumption & Exceptions: 1. The customer must have valid ticket and not be used.

2. The ticket must be from the same airline and same agency.

3. after paying the amount a ticket is canceled from airline and transection is stored in the memory by the travel agency management system.

3.5 Non-Functional Requirements

3.5.1 Performance

To prevent delays or system breakdowns, the system should be able to manage a high volume of transactions and have quick reaction times.

3.5.2 Accuracy

The system's data processing, computations, and reporting should all be extremely accurate and error-free. It should be able to manage intricate data structures and carry out data integrity checks.

3.5.3 Availability

In order to handle the affairs of the travel business, the system should be accessible both online and offline.

3.5.4 Security

The system must be built to guard against illegal access to airline accounts, bank ledgers, and agent ledgers. To avoid data breaches, it should be equipped with reliable encryption mechanisms, firewalls, and access restrictions.

3.5.5 Maintainability

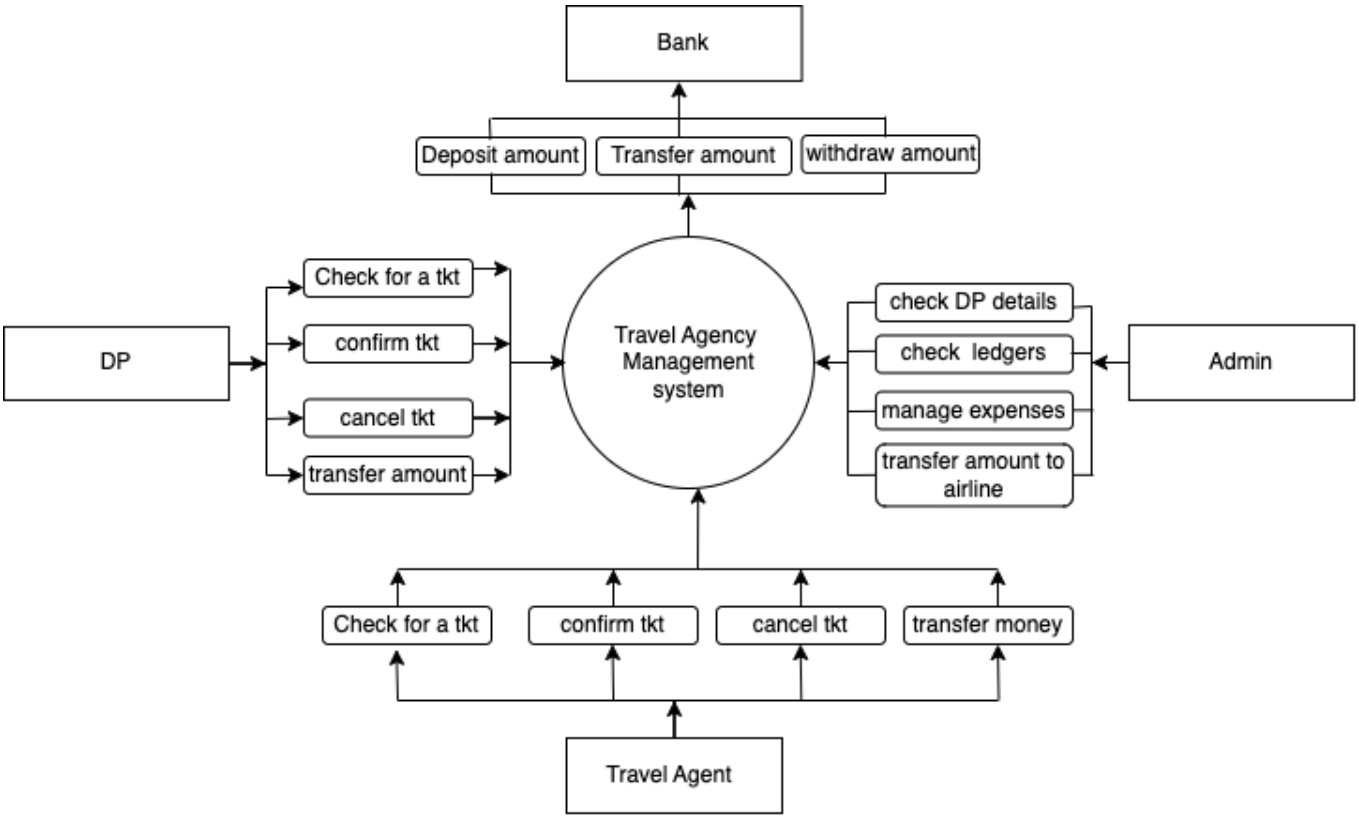
The system should be easy to maintain and update, with clear and well-organized code.

3.5.6 Accessibility

The system should be designed to be accessible to users with disabilities, such as those who are visually impaired, color blind persons or have limited mobility.

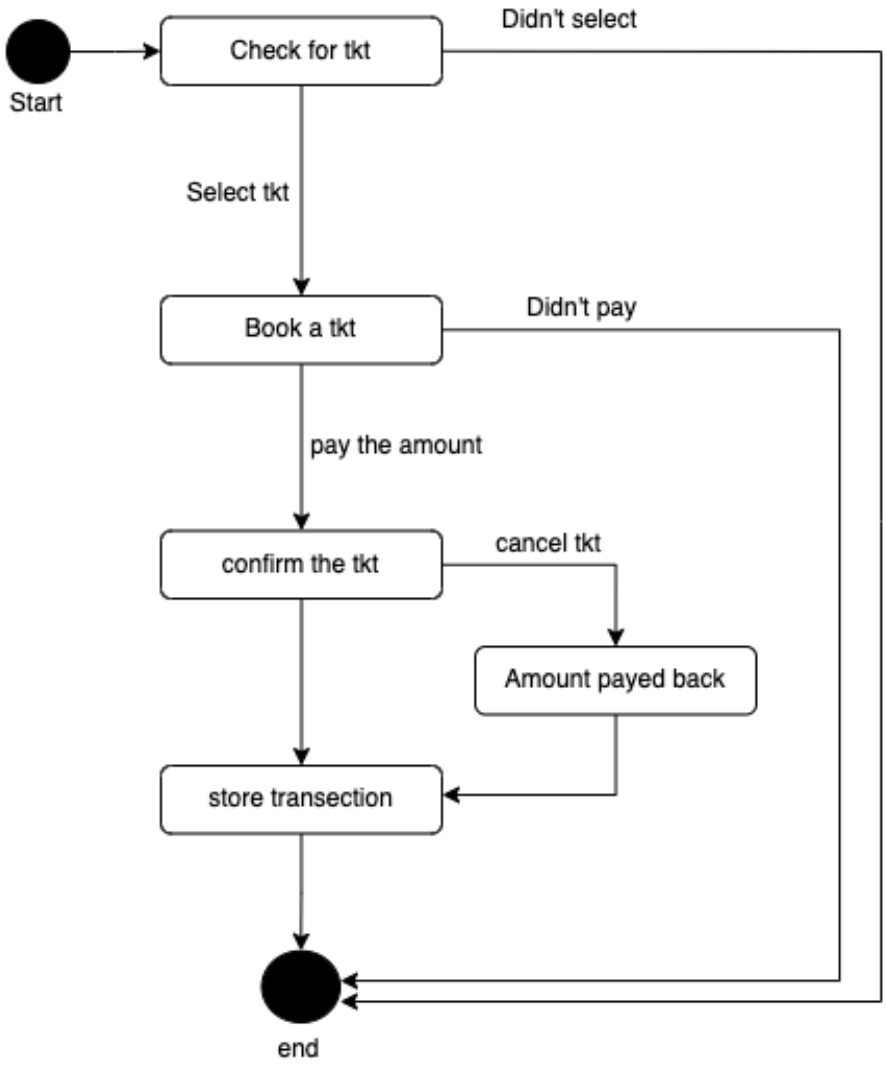
4. Analysis Models

4.2 Data Flow Diagrams (DFD)

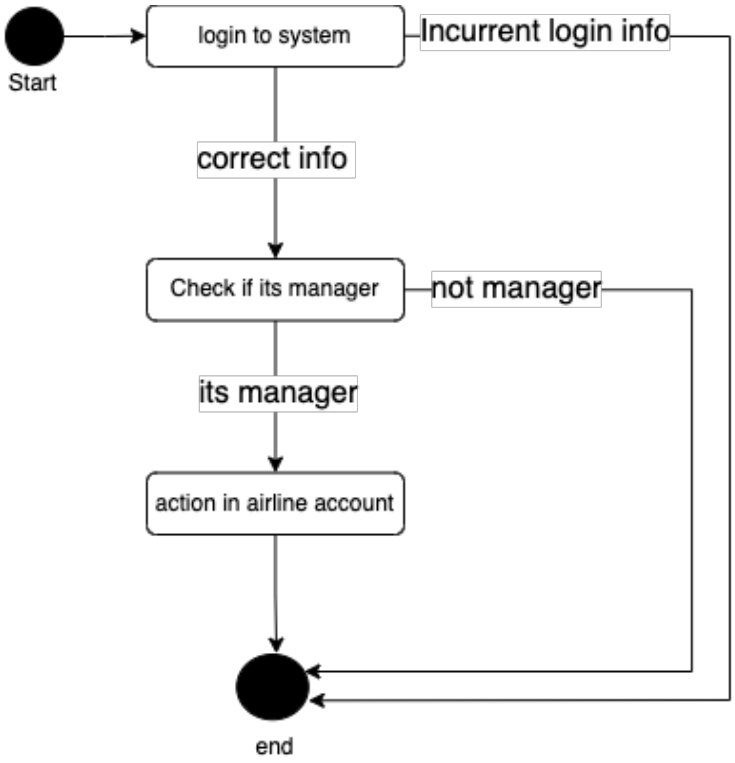


Level 0 DFD of the system

4.3 State-Transition Diagrams (STD)



State transition diagram for ticket booking



STD for Accessing the airline account in the system