Software Design Document

for

Airline Reservation System

Version 1.0

Prepared by

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4. DATA DESIGN

4.1 Data Description

Administrator

customers	Customer
fullName	str
userName	str
password	str
PK id	int

Customer

PK id	int
administrator	Administrator
tickets	Ticket
firstName	str
lastName	str
phoneNumber	str
mail	str
adress	str
city	str
country	str
password	str
newAttr	int
age	int

Flight

PK id	int
tickets	Ticket
numberOfSeats	int
name	str
destination	str
time	time
source	str
date	date

Ticket

PK id	int
customer	Customer
flight	Flight
price	int
custFirstName	str
custLastName	str
type	str

4.2 Data Dictionary

Administrator*:*
-fullName
-userName
-password
Methods*:*
-Login()
-AddFlight()
-AcceptRequest()
-DenyRequest()
-GetFlightInfo()
-CheckAvailability()
-Logout()

Customer*:*
-firstName
-lastName
-phoneNumber
-mail
-address
-city
-country
-password
-age
Methods*:*
-SearchFlight()
-SelectTicket()
-BookFlight()
-AddCardDetails()
-Pay()
-RequestForCancellation()
-AddPassengerDetails()

Flight*:*
-id
-numberOfSeats
-name
-destination
-time
-source
-date
Methods*:*
-FlightDetails()
-Availability()

Ticket*:*
-id
-price
-custFirstName
-custLastNAme
-type
Methods*:*
-TicketDetails()

6. HUMAN INTERFACE DESIGN

6.2 Screen Images

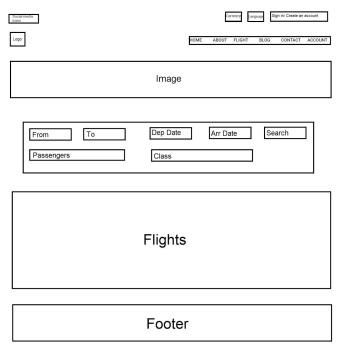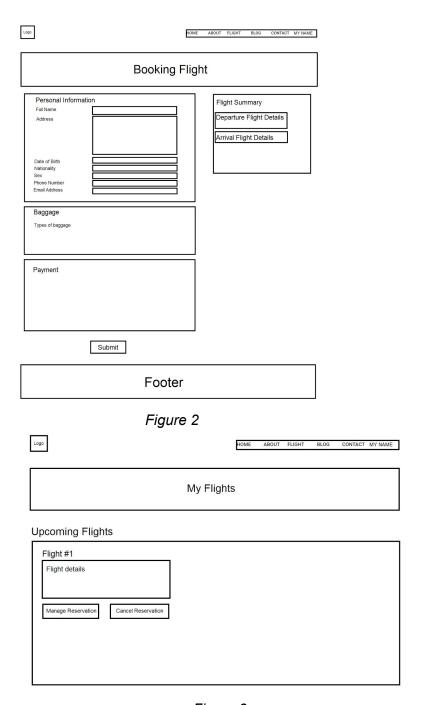*The user will see the home page when accessing the web application. (Figure 1)*

| Social media icons | | | | | | Currency | Language | Sign in/ Create an account |

| Logo | | | | HOME | ABOUT | FLIGHT | BLOG | CONTACT | ACCOUNT |

Image

| From | To | Dep Date | Arr Date | Search |

| Passengers | Class |

Flights

Footer

Figure 1

Logo
HOME   ABOUT   FLIGHT   BLOG   CONTACT   MY NAME

Booking Flight

Personal Information
Full Name
Address

Date of Birth
Nationality
Sex
Phone Number
Email Address

Flight Summary
Departure Flight Details
Arrival Flight Details

Baggage
Types of baggage

Payment

Submit

Footer

Figure 2

Logo
HOME   ABOUT   FLIGHT   BLOG   CONTACT   MY NAME

My Flights

Upcoming Flights

Flight #1
Flight details

Manage Reservation   Cancel Reservation

Figure 3
The user needs to have an account to be able to book tickets and manage reservations. The page where the customer will complete a reservation is shown in Figure 2. The customers will have a profile page where they can manage reservations (Figure 3).
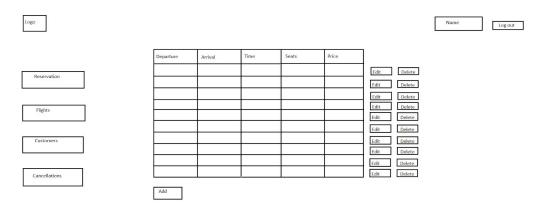
Figure 4
The interface of the administrator showing the list of flights. The administrator can add, edit and delete flights. He/ she can also see the list of reservations, clients and cancellations. (Figure 4)

7. REQUIREMENTS MATRIX

Scenarios:
S1: Customer wants to search for flights.
S2: Customer wants to see flight prices of different ticket types.
S3: Customer wants to sort available flights according to price.
S4: Customer wants to proceed to payment for booked flight
S5: Customer wants to cancel his/ her booked ticket.
S6: Administrator wants to modify the details about existing flights.
S7: Administrator wants to remove cancelled flights.
S8: Administrator wants to respond to cancellation requests of customers.
S9: Administrator wants to log on the system.

Class/Scenarios	Customer	Ticket	Administrator	Flight	S1	S2	S3	S4	S5	S6	S7	S8	S9
SRS													
FR1	X												
FR2	X												
FR3	X				based_on								
FR4	X					based_on	based_on						
FR5	X												
FR6	X								based_on				
FR7	X							based_on					
FR8			X										
FR9			X										based_on
FR10			X							based_on	based_on		
FR11			X									based_on	