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(Affiliated to Savitribai Phule Pune University)

A Project Report On

"Airline Reservation Database System"

Submitted in Partial Fulfillment for the Term-work of Third year in

ComputerEngineering of Savitribai Phule Pune University.

By

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Abstract

The purpose of this section is to state the Goal and Objectives of the Software Project.
The project presented here is the Airline Reservation System.
Airline reservations system is an integrated passenger processing system, including inventory, fares, ticket-less operations and credit card transactions. All communications are via TCP/IP network protocol enabling the using of both intranet and internet communications worldwide. The solution includes several standard items, which are combined to provide an integrated solution with interfaces to other business systems. The system is based on open architecture, using industry standard equipment and software. The open nature of VRS allows the addition of new systems and features, ensuring that the VRS system can be adapted to keep up with the changing requirements of the airline business.
The VRS suite of software includes the functions of

- ❖ Reservations
- ❖ Flight inventory
- ❖ Fares

All user/agents are allocated a SINE code, which is used during sine-on and then appended to all transactions carried out by the agent for security purpose. Different security levels may be assigned so that different agents can access different areas of the system and also, different records in the case where a travel agent is only allowed to review PNR's that have been created by that agency.
The flights may be specified within a particular date range and may be used to display different classes of service and different fares within a specific seating class. Sell from availability when it has been displayed and a simple entry is used to sell seats. A direct sale may be made using a long hand entry if the flight details are fully known.

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Airlines Reservation Management System

PROPOSED SYSTEM:

The proposed system is a web-based application and maintains a centralized repository of all related information. The proposed system maintains centralized repository to make necessary airlines arrangements and to retrieve information easily.

The system allows one to easily access the relevant information and make necessary airlines arrangements. Users can decide about places they want to visitand make bookings online for travel and accommodation.

The airlines management system allows the user of the system access all the details such as weather, location, events, etc. The main purpose is to help tourism companies to manage customer and hotels etc. The system can also be used for both professional and business trips.

This particular project deals with the problems on managing a tour and avoids the problems which occur when carried manually.

1. INTRODUCTION

Airline reservation system is an integrated passenger processing system. This system includes:

•Fares
•Inventory
•Enquiry
•Reservations

In this system all the communications are via TCP/IP protocol using both the Intranet and Internet communications worldwide.
The Airline Reservation system has the following Modules:

User registration module:
This module is helpful for the registration of the new customer.

Login module:
This module performs the login of the registered customer. In this module Customer-id and password is verified.

Reservation module:
This module performs the reservation of the ticket to the registered module.

Cancellation module:
This module performs the cancellation of the reserved ticket.

OBJECTIVE:

The objective of the Airlines Reservation Management System projectis to develop a system that automates the processes and activities of a travel and the purpose is to design a system using which one can perform all operations related to traveling.

APPLICATIONS

This application is built such a way that it should suits for all type of blood banks in future. So, every effort is taken to implement this project in this blood bank, on successful implementation in this blood bank, we can target other blood banks in the city.

This application consists following modules

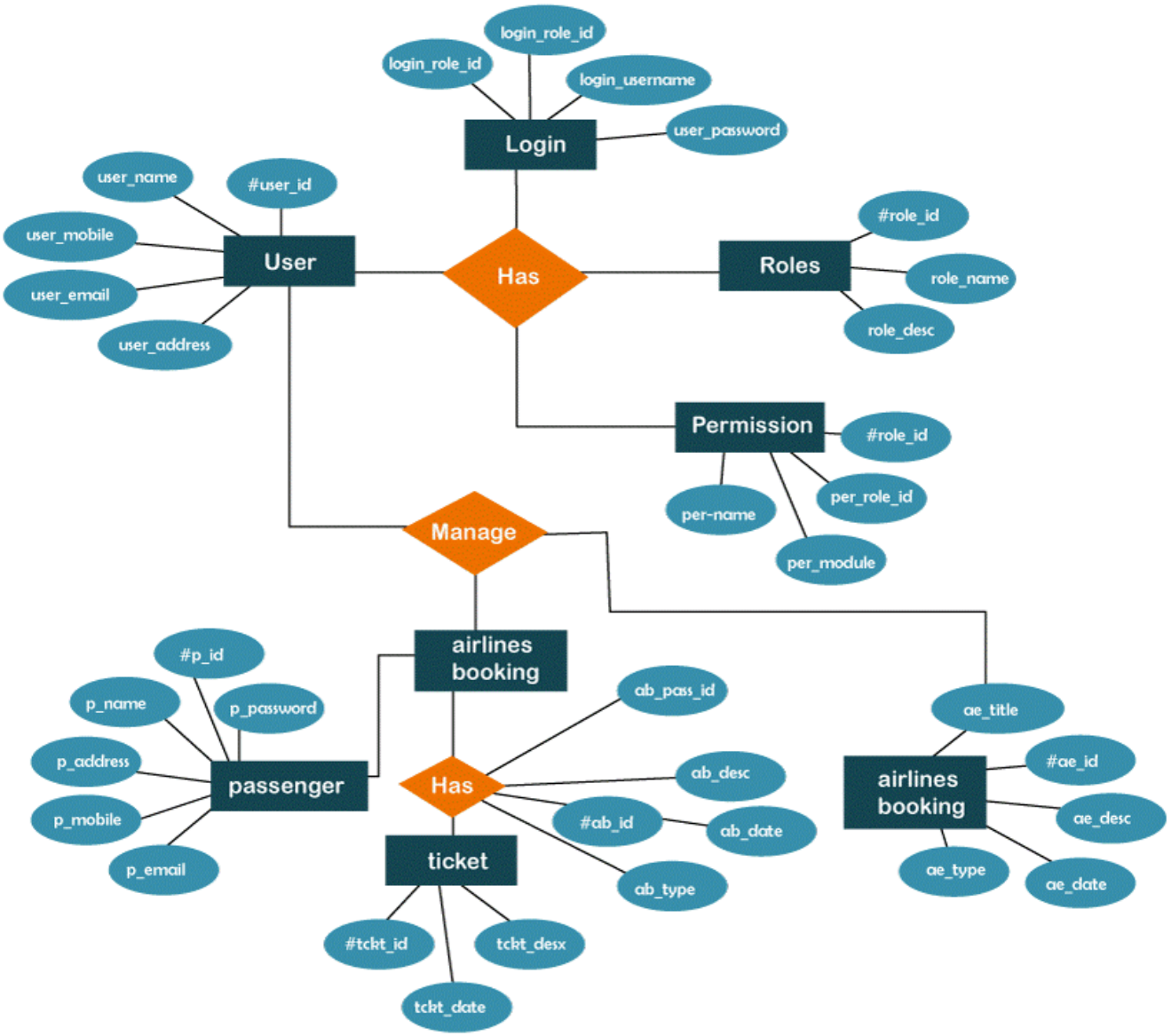
User registration module:
This module is helpful for the registration of the new customer.

Login module:
This module performs the login of the registered customer. In this module Customer-id and password is verified.

Reservation module:
This module performs the reservation of the ticket to the registered module.

Cancellation module:
This module performs the cancellation of the reserved ticket.

ER Diagram:


login_role_id
login_role_id
login_username
user_password
Login
user_name
#user_id
user_mobile
User
user_email
user_address
Has
#role_id
Roles
role_name
role_desc
Permission
#role_id
per-name
per_role_id
per_module
Manage
airlines booking
#p_id
p_name
p_password
p_address
passenger
p_mobile
p_email
ab_pass_id
Has
ab_desc
#ab_id
ab_date
ab_type
ticket
#tckt_id
tckt_desx
tckt_date
ae_title
airlines booking
#ae_id
ae_desc
ae_type
ae_date

SYSTEM IMPLEMENTATION

FOR RESERVATION

```
public class Book_Ticket extends javax.swing.JFrame
{
public Book_Ticket() {
initComponents();
}
Private void initComponents()
{
jLabel5 = new javax.swing.JLabel();
fid = new javax.swing.JTextField();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
jLabel5.setFont(new java.awt.Font("Tahoma", 1, 14));
jLabel5.setText("Flight Id:");
javax.swing.GroupLayoutlayout=newjavax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 729, Short.MAX_VALUE)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addGap(21, 21, 21)
.addComponent(jLabel5,javax.swing.GroupLayout.PREFERRED_SIZE,109,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(49, 49, 49)
28
.addComponent(fid,javax.swing.GroupLayout.PREFERRED_SIZE,200,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap(350, Short.MAX_VALUE)))
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 359, Short.MAX_VALUE)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addGap(133, 133, 133)
.addComponent(jLabel5, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(fid, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addContainerGap(192, Short.MAX_VALUE)))
);
pack();
}
```

```
public static void main(String args[]) {
try
{
for (javax.swing.UIManager.LookAndFeelInfo
info:javax.swing.UIManager.getInstalledLookAndFeels()) {
if ("Nimbus".equals(info.getName()))
{
javax.swing.UIManager.setLookAndFeel(info.getClassName());
break;
}
}
}
29
catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(Book_Ticket.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
} catch (InstantiationException ex){
java.util.logging.Logger.getLogger(Book_Ticket.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
} catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Book_Ticket.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Book_Ticket.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
} java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new Book_Ticket().setVisible(true);
}
});
}
private javax.swing.JTextField fid;
private javax.swing.JLabel jLabel5;
}
FOR PAYMENT
public class Payment_Option extends javax.swing.JFrame {
public Payment_Option() {
initComponents();
}
private void initComponents() {
jPanel1 = new javax.swing.JPanel();
jLabel1 = new javax.swing.JLabel();
Credit_Card = new javax.swing.JButton();
30
Debit_Card = new javax.swing.JButton();
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
jPanel1.setBorder(javax.swing.BorderFactory.createLineBorder(new
java.awt.Color(0, 0, 0), 3));
jLabel1.setFont(new java.awt.Font("Tahoma", 1, 18));
jLabel1.setText("Payment Option");
javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(jPanel1Layout.createSequentialGroup()
.addGap(19, 19, 19)
.addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 160,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap(20, Short.MAX_VALUE))
);
jPanel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addComponent(jLabel1,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 34, Short.MAX_VALUE)
);
Credit_Card.setFont(new java.awt.Font("Tahoma", 1, 14));
Credit_Card.setText("Credit Card");
Credit_Card.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
Credit_CardActionPerformed(evt);
}
});
Debit_Card.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
Debit_Card.setText("Debit Card");
Debit_Card.addActionListener(new java.awt.event.ActionListener()
31
{
public void actionPerformed(java.awt.event.ActionEvent evt) {
Debit_CardActionPerformed(evt);
}
});
javax.swing.GroupLayout layout new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addContainerGap(154, Short.MAX_VALUE
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
```

```
layout.createSequentialGroup()
.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(166, 166, 166))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
.addComponent(Debit_Card)
.addGap(86, 86, 86)
.addComponent(Credit_Card)
.addGap(125, 125, 125))))
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(layout.createSequentialGroup()
.addContainerGap()
.addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
32
.addGap(58,
58,
58)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
.addComponent(Credit_Card, javax.swing.GroupLayout.PREFERRED_SIZE,
35, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(Debit_Card,
javax.swing.GroupLayout.PREFERRED_SIZE,
35,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addContainerGap(266, Short.MAX_VALUE))
);
pack();
}
private void Credit_CardActionPerformed(java.awt.event.ActionEvent evt) {
setVisible(false);
Credit_Card ob=new Credit_Card();
ob.setVisible(true);
}
private void Debit_CardActionPerformed(java.awt.event.ActionEvent evt) {
setVisible(false);
Debit_Card ob= new Debit_Card();
ob.setVisible(true)
}
```

```
public static void main(String args[]) {
try {
for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
if ("Nimbus".equals(info.getName())) {
javax.swing.UIManager.setLookAndFeel(info.getClassName());
break;
}
}
33
} catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(Payment_Option.class.getName()).log(java.util.loggi
ng.Level.SEVERE, null, ex);
} catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(Payment_Option.class.getName()).log(java.util.loggi
ng.Level.SEVERE, null, ex);
}
catch
(IllegalAccessException
ex)
{
java.util.logging.Logger.getLogger(Payment_Option.class.getName()).log(java.util.loggi
ng.Level.SEVERE, null, ex);
}
catch
(javax.swing.UnsupportedLookAndFeelException
ex)
{
java.util.logging.Logger.getLogger(Payment_Option.class.getName()).log(java.util.loggi
ng.Level.SEVERE, null, ex);
}
java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new Payment_Option().setVisible(true);
}
});
}
private javax.swing.JButton Credit_Card;
private javax.swing.JButton Debit_Card;
private javax.swing.JLabel jLabel1;
private javax.swing.JPanel jPanel1;
}
```

6. RESULTS

Table name: Registration_info

Field Description	Name	Type	Width
First Name	FirstName	Varchar	12
Last Name	LastName	Varchar	12
Customer's Address	Adress	Varchar	16
Customer's Contact Num	ContactNo	Number	12
Customer's City	City	Varchar	12
Customer's State	State	Varchar	12
Customer's Country	Country	Varchar	12
Customer's Gender	Gender	Varchar	2
Customer's Email-Id	Email_Id	Varchar	12
Customer's Id	Customer_id	Varchar	8
Customer's Password	Password	Varchar	8

Table name: Login_info

Field Description	Name	Type	Width
Customer's Id	Customer_id	Varchar	8
Customer's Password	Password	Varchar	8

Table name: Reservation_info

Field Description	Name	Type	Width
Customer's Id	Customer_id	Varchar	8
Flight's Number	Flight_num	Varchar	12
Flight's Name	Flight_name	Varchar	12
Departure Time	Departure_time	Time	
Arrival Time	Arrival_time	Time	
Origin Place	Origin	Varchar	16
Destination place	Destination	Varchar	16
Number of Seats	Num_of_seats	Number	4

Table Name: Flight_info

Field Description	Name	Type	Width
Flight's Number	Flight_num	Varchar	12
Flight's Name	Flight_name	Varchar	12
Departure Time	Departure_time	Time	
Arrival Time	Arrival_time	Time	
Origin Place	Origin	Varchar	16
Destination place	Destination	Varchar	16
Number of Seats	Num_of_seats	Number	4
Country Name	Country_name	Varchar	12

Table Name: Price_info

Field Description	Name	Type	Width
Class Name	Class	Varchar	12
Customer's Name	Customer_name	varchar	14
Seat Number	Seat_num	Number	4
Price Of ticket	Price	Number	4,2

Table name: Transaction_info

Field Description	Name	Type	Width
Credit card number	Credit_num	Varchar	8
Credir card type	Credit_type	Varchar	8
Pin Number	Pin_num	Number	6

Table name: Airport_info

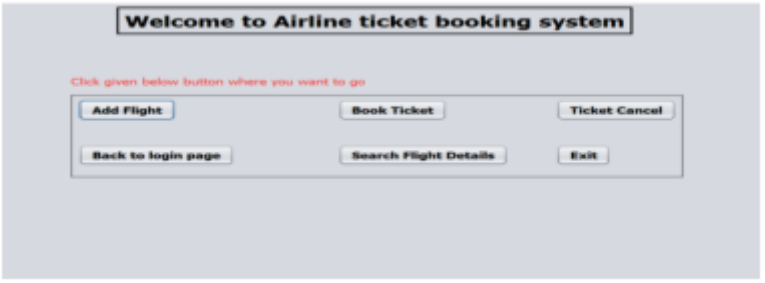
Field Description	Name	Type	Width
Country Name	Country_name	Varchar	14
Airport Name	Airport_name	Varchar	14

Table name: Flight_cancellation

Field Description	Name	Type	Width
Customer's Id	Customer_id	Varchar	8
Flight's Number	Flight_num	Varchar	12
Origin Place	Origin	Varchar	16
Destination place	Destination	Varchar	16
Flight's Name	Flight_name	Varchar	12
Departure Time	Departure_time	Time	
Arrival Time	Arrival_time	Time	
Seat Number	Seat_num	Number	4

SCREENSHOTS

MAIN HOME PAGE:

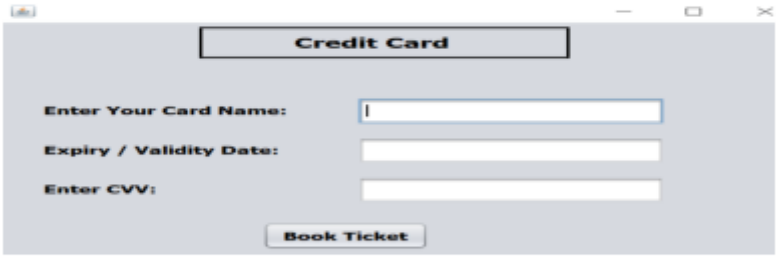


LOGIN PAGE:

SIGNUP PAGE:

FLIGHT TICKET BOOKING PAGE

PAYMENT PAGE



FLIGHT TICKET CANCELLATION PAGE

FUTURE SCOPE

The software package "Airline Reservation System" provides convenient online uploading the report from executive and viewing that report by the managing director in an online fashion. To input the data in a highly validated manner and generating the different reports, this involves complex process that was being done on based manner. This package is designed and developed in a compact manner, which is ready to meet the user's specification and to serve them in an effective as well as in an enhanced manner. The actual problem has been observed with keen interest and it has been defined and analyzed in such a way that it never causes choice to the user. More ever the limitation that has been prevailing in the existing system had been overcome to suit the need of the user.

High precision and care have been taken to design the data base; input forms an output reports since they should be given due importance which could otherwise to serious consequences thus affecting the whole system. The system thus developed has been implemented successfully which has been performed to scrutinized the validation of each data and errors were spotted out and then finally cleared in a sophisticated manner.

The added feature of this system is that it has been provided with many provisions for future enhancement in order to maintain the system in such a way that the future requirement of the user could also be satisfied and upgraded.

CONCLUSION

Airlines Reservation management" simplifies the management process in travelling. Fast processing and immediate results with high security. Minimizing human effort and cost-efficient databases. Navigation through the site is easy.

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