

## Chapter 2: System Design

### 2.1 Physical Design

#### 2.1.1 Block Diagram

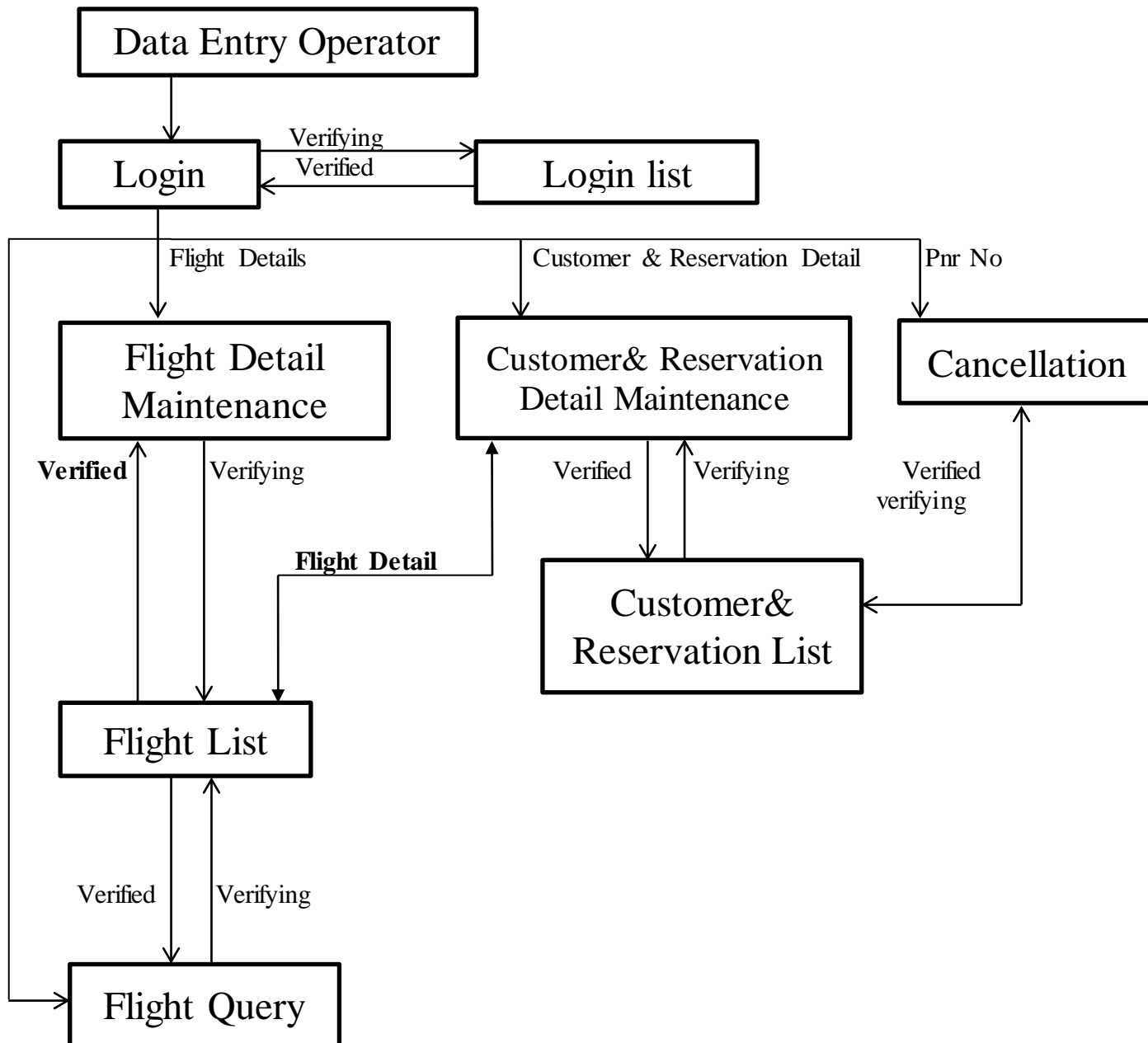
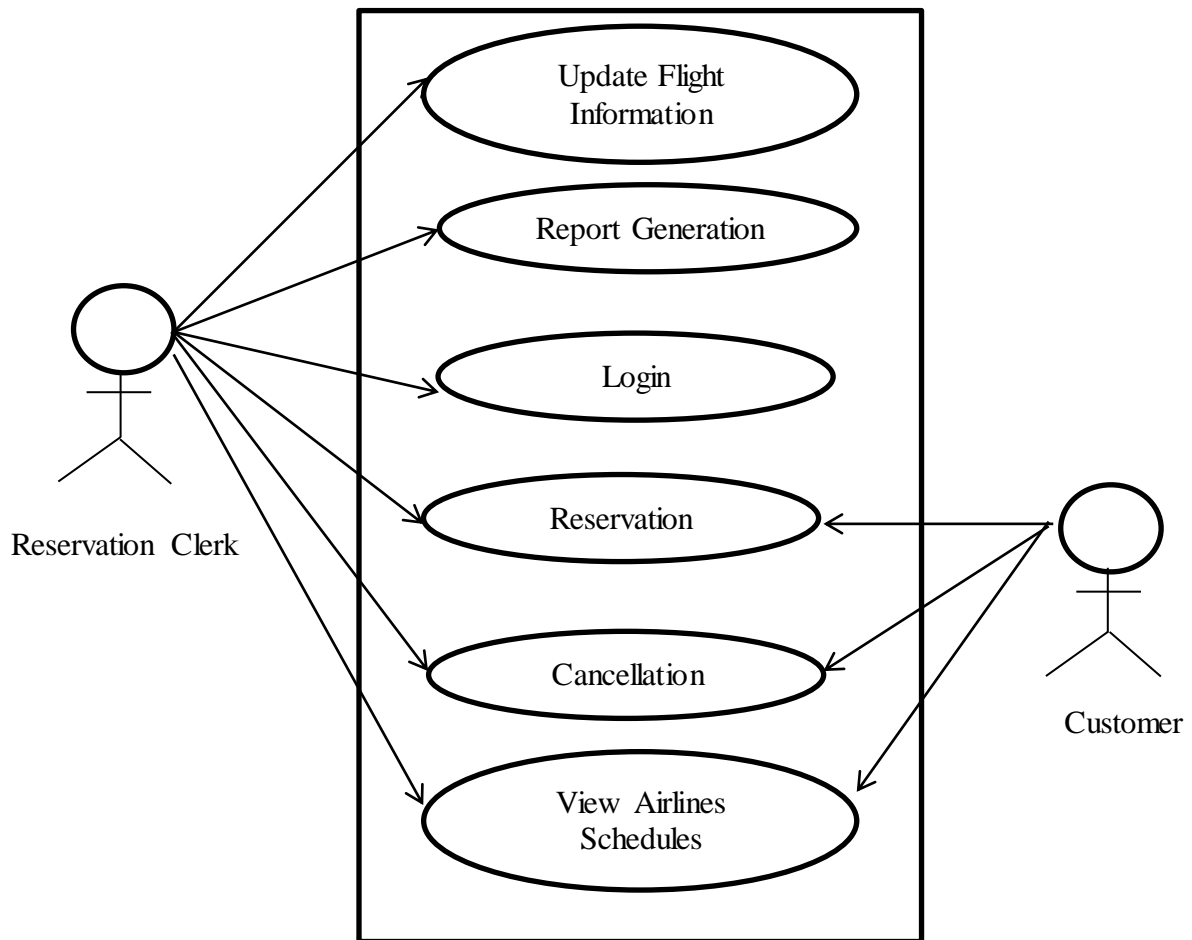


Figure N0-6:- Block Diagram

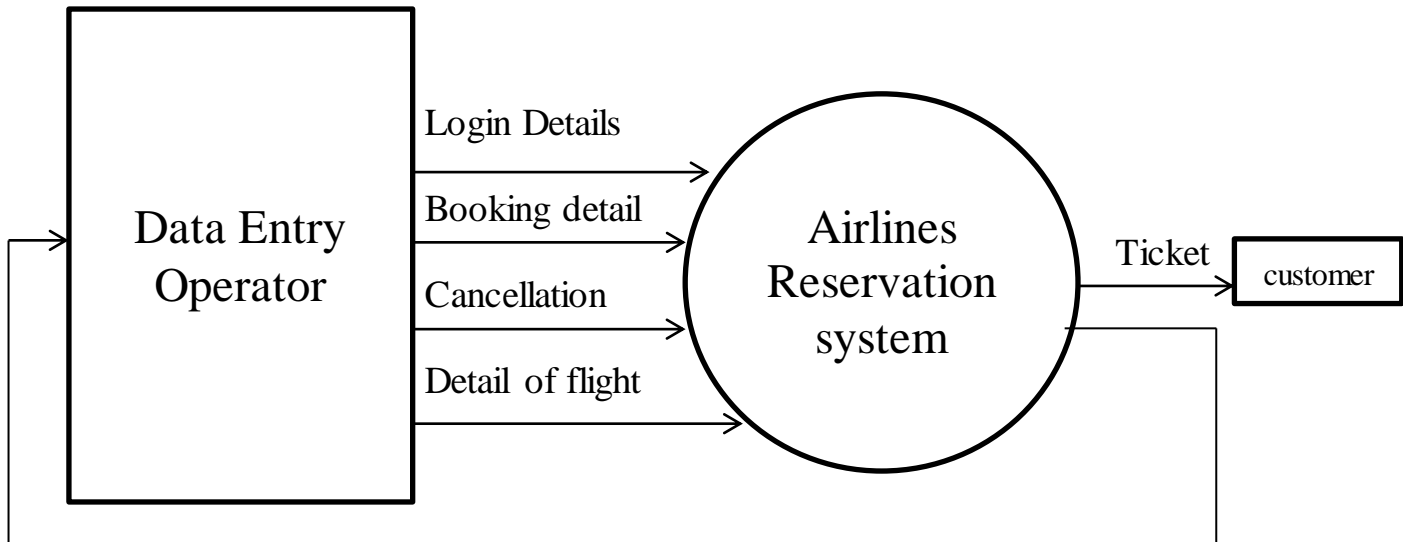
### 2.1.2 Use case diagram



**Use case diagram for Airlines Reservation System**

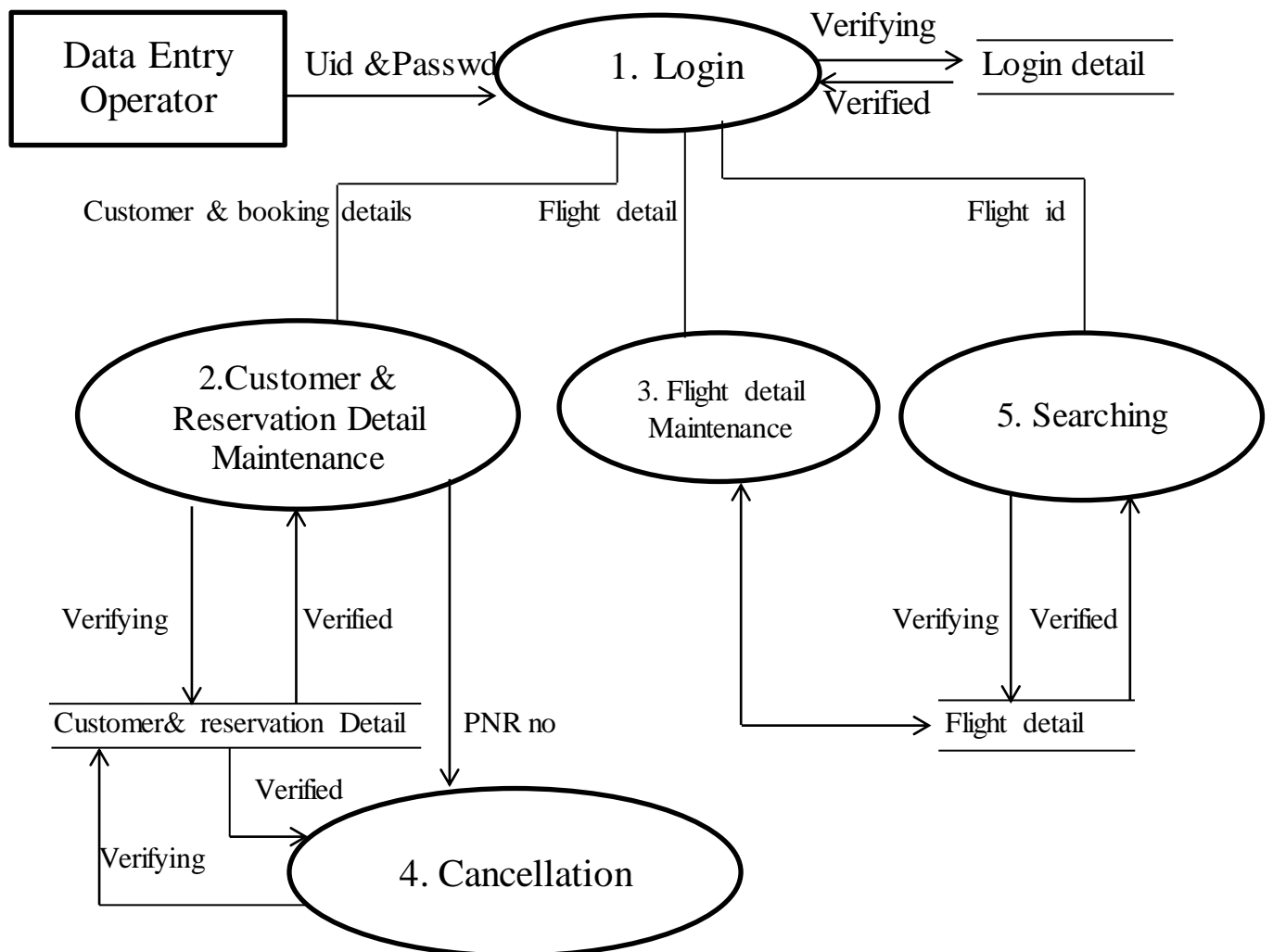
### 2.1.3 Data Flow Diagram

#### 2.1.3.1 DFD 0 Level



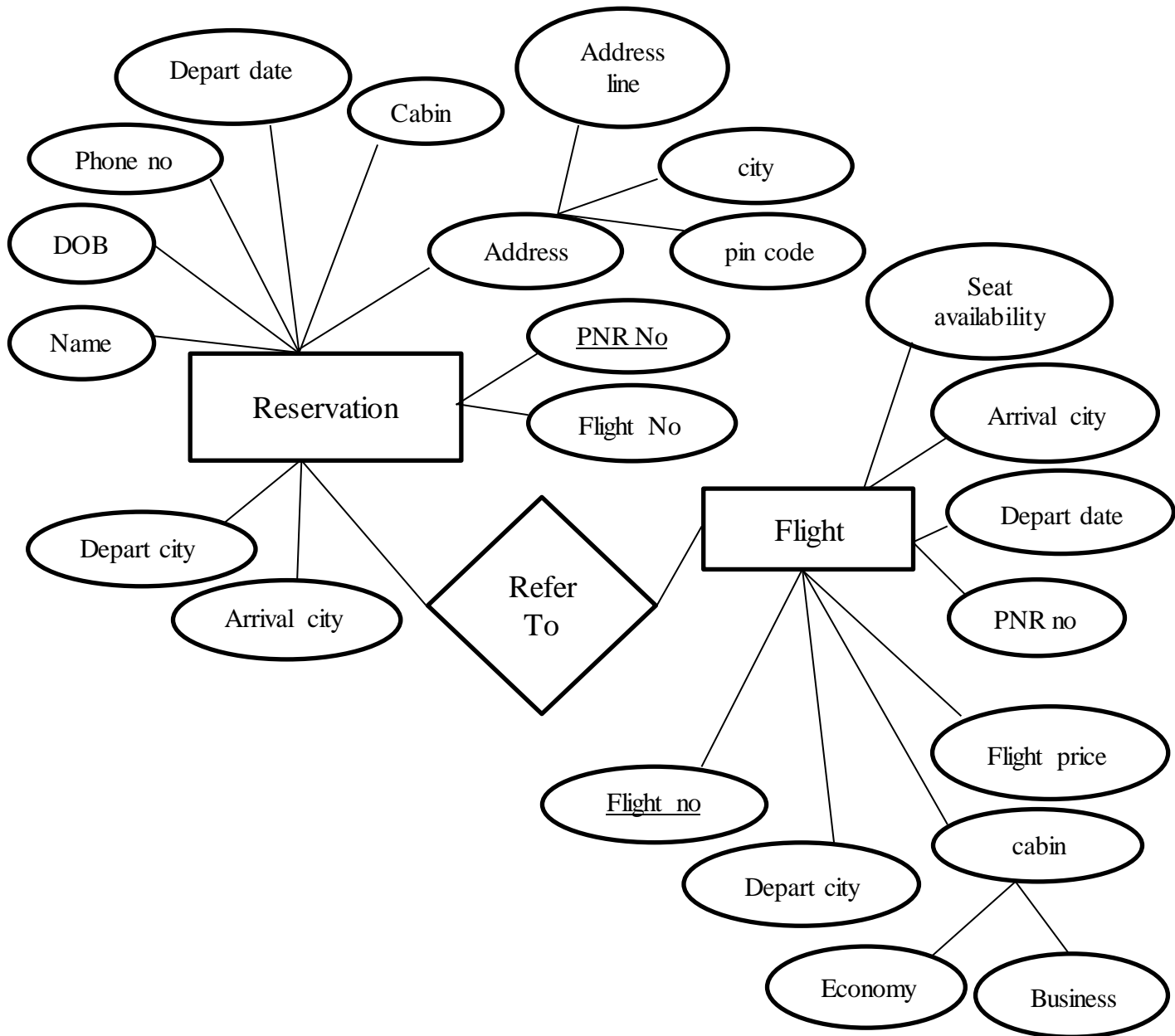
#### Data Flow Diagram of 0 level

### 2.1.3.1 DFD 1 Level



**Data Flow Diagram of 1 level**

### 2.1.4 Entity Relationship Diagram



### ER Diagram of Airlines Reservation System



### 2.2.3 Customer & Reservation Database

```
Command Prompt - sqlplus
Connected to:
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

SQL> Create TABLE cust_data (title varchar(4),first_name varchar(20),last_name v
varchar(20),date_of_birth_day number(2),date_of_birth_month char(4),date_of_birth
_year number(4),mobile_no char(15),address_line_one varchar(50),address_line_two
varchar(50),city varchar(10),state varchar(15),country varchar(15),pincode char
(8),pnr_no varchar(20),flight_no varchar(15),cabin varchar(10));

Table created.

SQL> desc cust_data;

```

| Name                | Null? | Type         |
|---------------------|-------|--------------|
| TITLE               |       | VARCHAR2(4)  |
| FIRST_NAME          |       | VARCHAR2(20) |
| LAST_NAME           |       | VARCHAR2(20) |
| DATE_OF_BIRTH_DAY   |       | NUMBER(2)    |
| DATE_OF_BIRTH_MONTH |       | CHAR(4)      |
| DATE_OF_BIRTH_YEAR  |       | NUMBER(4)    |
| MOBILE_NO           |       | CHAR(15)     |
| ADDRESS_LINE_ONE    |       | VARCHAR2(50) |
| ADDRESS_LINE_TWO    |       | VARCHAR2(50) |
| CITY                |       | VARCHAR2(10) |
| STATE               |       | VARCHAR2(15) |
| COUNTRY             |       | VARCHAR2(15) |
| PINCODE             |       | CHAR(8)      |
| PNR_NO              |       | VARCHAR2(20) |
| FLIGHT_NO           |       | VARCHAR2(15) |
| CABIN               |       | VARCHAR2(10) |

```
SQL> _
```

## 2.3 Interface Design

The interface design consists of the input and output source layouts. i.e. the input forms and screens and the report layouts that form as a source of outcome and income in the design and implementation of the information system under study

### 2.3.1 Main Form

The screenshot displays the 'Airlines Reservation System' web application. The header features a banner for 'BEST AIRFARE DEALS ON ALL AIRLINES' with a 'Book Now' button and logos for IndiGo, JET AIRWAYS, Air India, SpiceJet, and Go. The main content area is divided into two columns. The left column, titled 'BOOK YOUR DOMESTIC FLIGHT', contains a flight booking form with fields for 'From' (New Delhi), 'To' (Goa), 'Cabin/Class' (Economy selected), and 'Depart' (7/29/2012). A 'Search' button is positioned below the date field. The right column contains two sections: 'Administration' with a link for 'Secure Staff Member Login' and an illustration of two people, and a 'cancellation' section with a 'PNR NO' input field and a 'Submit' button. Below the cancellation section is a 'Print Ticket' section, also with a 'PNR NO' input field and a 'Print' button.

| Airlines Reservation System   |           |
|---|-----------|
| <b>BEST AIRFARE DEALS ON ALL AIRLINES</b><br><a href="#">Book Now</a><br>IndiGo JET AIRWAYS Air India SpiceJet Go |           |
| <b>BOOK YOUR DOMESTIC FLIGHT</b>  |           |
| From<br>New Delhi   | To<br>Goa |
| Cabin/Class<br><input checked="" type="radio"/> Economy <input type="radio"/> Business                            |           |
| Depart<br>7/29/2012   |           |
| <a href="#">+ more</a> <a href="#">Search</a>   |           |
| <b>Administration</b><br>Click here for the Secure Staff Member Login<br>   |           |
| <b>cancellation</b><br>PNR NO <input type="text"/><br><a href="#">Submit</a>                                      |           |
| <b>Print Ticket</b><br>PNR NO <input type="text"/><br><a href="#">Print</a>                                       |           |



All Flight Information


Back

Previous Day

Next Day

Date7/29/2012

Result



Flight NoJet297201270

Previous

1

Result out of

1

Next

New Delhi=====>>Goa

Departure Date7/29/2012

Departure Time0:15

Cabin economy

BOOK NOW ▶

Show the result no

Show the total no of flight

Show the Next flight

Flight

Back

|                |             |                            |              |
|----------------|-------------|----------------------------|--------------|
| Departure City | New Delhi   | Flight No                  | Jet297201270 |
| Arrival City   | Goa         | Depart Time                | 0:0          |
| Departure Date | 7/29/2012   | Price                      | 84980        |
| Cabin          | economy     | <div>Continue to Pay</div> |              |
| Flight Comapny | Jet Airways |                            |              |

Show the complete information of selected flight

### 2.3.2 Customer information form

Customer Information

Back

Customer Information

Title\*

Mr

First Name\*

harish

Last Name\*

singh

Date Of Birth

12

Dec

1998

Mobile No\*

9711071618

Address-Line 1\*

laxmi vihar dwarka

Address-Line 2

laxmi vihar dwarka

City\*

delhi

State\*

delhi

Country\*

india

Pin Code\*

110059

BOOK NOW ▶

### 2.3.3 Ticket Form

Ticket

Travelling Ticket

From New Delhi To Goa

Departure Date 7/29/2012

Cabin economy

Flight No Jet297201270

Depart Hour 0 : 0

9 300601 219315

Name harish singh

PNR NO har7161870

Rs 84980

Exit

Print

Airlines Reservation System

BEST AIRFARE DEALS  
ON ALL AIRLINES

Book Now

IndiGo

JET AIRWAYS

Administration

Click here for the Secure Staff Member Login

BOOK YOUR DOMESTIC FLIGHT

From

To

Cabin/Class

☐ Economy
 ☐ Business

Depart

mm/dd/yyyy

24

Search

cancellation

PNR NO

Submit

Print Ticket

PNR NO

har7161870

Print

In case lose of ticket enter the PNR No and click on print

Airlines Reservation System

BEST AIRFARE DEALS

Ticket

Travelling Ticket

From

New Delhi

To

Goa

Departure Date

7/29/2012

Cabin

economy

Flight No

Jet297201270

Depart Hour

0 : 15

Name

harish singh

PNR NO

har7161870

Rs

84980

Exit

Print

PNR NO

har7161870

Print

Airlines Reservation System

AMAZING LADAKH

7 nights/ 8 days @ ₹ 27,999 ₹ 23,999

View details

Toll Free: 1860-500-5566

Includes return airfare, accommodation, sightseeing and lots

Administration

Click here for the Secure Staff Member Login

BOOK YOUR DOMESTIC FLIGHT

From

To

Cabin/Class

☐ Economy
 ☐ Business

Depart

mm/dd/yyyy

24

Search

more

cancellation

PNR NO

har7161870

Submit

Print Ticket

PNR NO

Print

In case of ticket cancellation enter the PNR No and click on submit

Airlines Reservation System

T&C apply

Cancellation

Back

First Name

harish

Last Name

singh

Mobile No

9711071618

PNR NO

har7161870

Cancel Booking

Administration

Click here for the Secure Staff Member Login

BOOK YOUR DOMESTIC FLIGHT

From

To

Cabin/Class

☐ Economy
 ☐ Business

Depart

mm/dd/yyyy

24

Search

more

cancellation

PNR NO

har7161870

Submit

Print Ticket

PNR NO

Print

### 2.3.4 Administrator login

The screenshot shows the 'Airlines Reservation System' window. A banner at the top left advertises 'AMAZING LADAKH' for 7 nights/8 days at ₹27,999 to ₹23,999, with a 'View details' button and a toll-free number 1860-500-5566. Below the banner is a 'BOOK YOUR DOMESTIC FLIGHT' section with input fields for 'From', 'To', and 'Depart' (mm/dd/yyyy), and a 'more' button. On the right, an 'Administration' section contains a link: 'Click here for the Secure Staff Member Login'. Overlaid on the center is the 'Administration Login' dialog box, which features a gear icon and the title 'Administration'. It has input fields for 'login' (containing 'harish') and 'password' (masked with dots), and 'Back' and 'Login' buttons. At the bottom right of the main window, there is a 'PNR NO' input field and a 'Print' button.

The screenshot displays the 'Flight Entry Form (Only Administrator)' window. The title bar includes 'New Flight Entry', 'Log Out', and 'Clear' buttons. The form is divided into several sections: 

- Select Flight:** A dropdown menu.
- From/To:** Two dropdown menus.
- Departure Date/Time:** A date picker (mm/dd/yyyy) and a time selector (Hours: Minutes:).
- Economy Class:** Input fields for 'No Of Seats' and 'Price Per Seat'.
- Business Class:** Input fields for 'No Of Seats' and 'Price Per Seat'.
- Submit:** A blue button.
- Flight No:** A text input field.
- Database Tree View:** A checkbox labeled 'View Database in tree form' and a folder icon.
- Flight:** A checkbox 'Delete all old flight data' and a trash can icon.
- Customer:** A checkbox 'Delete all old customer data' and a trash can icon.
- Flight Report:** A checkbox 'Create flight data report' and a clipboard icon.
- Customer Report:** A checkbox 'Create customer data report' and a clipboard icon.
- Setting:** Icons for a user profile and a database cylinder.
- Backup and Restore:** Icons for a backup disk and a restore clock.