**Fr. CONCEICAO RODRIGUES COLLEGE OF ENGG.**

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Deprtment of Computer Engineering

Subject-OOPM (SEM-III)

Academic year 2016-2017

**MINI PROJECT REPORT**

**Project Name: Airlines System**

**1. Problem Statement:**

Write a program to book an air ticket. The tickets are of two types, international and domestic. A customer can book an international ticket or a domestic ticket. The program will display the number of customers that have booked the ticket and their details.

**2. ABSTRACT**

As this program deals with the booking of tickets by the customers. The program generates a ticket for each customer and gives its status. As there is a limited number of seats the status of ticket goes from ***confirmed*** to ***waiting*** status, when it exceeds its limit.

Then the system asks for customer’s personal details and also the number of passenger boarding and according to that the system generates the total amount to be paid and at the end generates the complete ticket of the passenger.

Names of The Classes AND METHODS USED:

**// List Functions OR write the functionality in words.**

1. Class Customer:
2. Customer()
3. void displaycust()
4. abstract class Ticket
5. abstract void getdetails()
6. abstract public void display()
7. void displaystatus()

**3**.class International:

a.International()

b.public void getdetails()

c. public float calculate()

**4**.class Status :

a.Status()

**3. Java Features Achieved:**

**1. Exceptional Handling:**

In this program we have used exceptional handling to handle the exceptions occurring at every stage or inputs given by the users.

**2.Polymorphism:**

Polymorphism is the ability to take more than one form. Polymorphism plays an important role in allowing object having different internal structures to share the same external interface.

For Example in this program we have used interface header which is used by both the classes Domestic and International. In this program we are passing reference of the Domestic class and International class to the Ticket class reference and display the details of the Domestic and International class through it.

**3.Aggregation:** we have made the object of status class in the ticket class hence it denotes aggregation.

**4.Inheritance:** we have used hierarchical inheritance as both Domestic class and International class extends Ticket class.

**5.Interface:**  we have used an interface header which contains a final string head i.e. name of the company which is implemented by both the subclasses and both override the method displayhead () in them.

**6.Abstract class:** we have made the class Ticket as abstract as we do not make an object of Ticket class. And the method getdetails() is over ridden.