**Air Ticketing System**

**About The Application:**

You have to design and implement a ticket management system that can be applicable to any airlines. The features of this system will be similar as a common ticketing system. As a user

* You can view the schedule
* You can book tickets
* You can cancel your booking
* You can confirm your booking

**Feature Requirements:**

There will be three types of user in the system; **Admin**, **Registered** user and **Unregistered** user. Admin usually perform the administrative tasks. Such as

* Creating a flight
* Changing time schedule
* Creating a new route
* Updating airport information
* Registering and managing users
* View statistics of total sale and about a specific flight or route (i.e., how much is the sale, how many tickets are booked, confirmed and canceled)

Registered users are those who already signed up to the system. A user must be registered and have to login to book, confirm or cancel his/her ticket. Sometimes a registered user may be suspended for canceling too many bookings. This suspension may be done automatically or manually by an admin.

Apart from the admins and registered users, all the others are classified as unregistered users. Unregistered users can only view the flight routes and schedules.

Registered users should be categorized into two or more groups,for example, Gold User, Premium User etc. High privileged users do not get suspended for canceling tickets as well as get some discount (let’s assume 20%) for confirming each ticket. Make your own rules when a normal Registered User will be upgraded to Gold/Premium User and when they will be degraded to normal user again. To obtain this feature you have to store all the information of booking, confirming and canceling tickets to database.

**Technical Requirements:**

**Login:** Make sure user cannot login with an empty username or password. Also, password should contain at least one special character and length should not be less than 6 characters.

**Signup:** Usually, a user signup with his/her email address or mobile number as his/her username. Make sure that multiple user cannot sign up with same email or mobile number. You may provide the user some hint to notify that the email he/she is using is already registered (by using AJAX).

**View Schedule/Book Ticket:** When user selects a flight schedule, the information should appear dynamically, without reloading the page (use AJAX). Also, a Google map should display the flying route starting from the starting airport to the destination airport.

**Searching Flight Schedule:** There should be some searching mechanism, through which, a user can search for a flight schedule between any two airports. There may be multiple flight schedules between two specific airports. Make sure the system displays all of them.

**Viewing Statistics:** Statistics help the admins to take decisions about which flight has to be canceled or which route needs more flights. The application should show the statistics separately for each flight and schedule, also for the total application as a whole (i.e., how much is the total sale, how many tickets are booked, confirmed and canceled, what is the rate of confirmation/cancellation etc.). Choosing different category from a drop-down list will dynamically display the statistics without reloading the whole page (use AJAX).

**Uploading information into the system:** The information of an airport (i.e.: name, latitude and longitude) will be given to you in a text file in the following order:

*Airportname*

*Latitude*

*Longitude*

*Airportname*

*Latitude*

*Longitude*

*…*

*…*

*…*

Make sure your system has a mechanism to take input from a text file and write that information into database.

**Submission Deadline:13/04/2014 (Sunday)**