**Advanced Internet Technologies**

**Project Proposal of *Gill’s Airline***

<Url:-><http://gillairline.azurewebsites.net/>

**An introduction to the project subject matter: -**

Airline is the most popular industry these days and the best way to learn databases interaction. I have decided to build a fully responsive and properly designed web application for Gill’s Airline. It consists of 6 main web pages i.e. Home, Contact, Flight, Clients, Airline and Staff. And also 4 database tables to store information.

Here are their name and the information they will store: -

1. Airline (Id, Name, Origin)
2. Flight (Id, Code, DestPlace, FlightData)
3. Client (Id, LName, FName, EnrolmentDate)
4. Staff (Id, LName, FName, EmployedDate)

The relationships between them is

Flight can have any number of Clients in it, but a Client must be present in one and only one flight.

Flight can hire any number of Staff in it, but a Staff must be present in one and only one flight.

Airline can have any number flights in it, but a flight must be owned by one and only one Airline.

**The goals of the project: -**

The main Goal of this project is to show and learn how things work in an Airline company. Due to learning perspective I started it with 4 main basic databases tables. Each table is linked with other table for sharing of information. These tables will store their appropriate information and interact with one another through primary keys and foreign keys e.g. when client will book his ticket for a specific flight, database will automatically check if that flight exists or not, if not then database will give an Error. All this can be done by comparing primary keys and foreign keys. In this example client and flight table is exchanging information for validation.

User can also add, delete, edit (<http://gillairline.azurewebsites.net/Clients>) and search for a specific record stored in a database. To search for a specific record stored in a database, user needs to provide an ID number of that record he/she is looking for, but before that user should go to that specific web page by clicking it from the nav bar or change the url (<http://gillairline.azurewebsites.net/Clients/search>). Xml format Api’s (<http://gillairline.azurewebsites.net/api/Clients>) will be created and updated automatically for all 4 tables. Those api’s will show the all present information stored in the database.

**The strategy that will be employed to meet the stated project goals.**

Firstly, I will create folders for each of my webpage under **views** folder and then will design it by using Html, Css and bootstrap. Then make classes of all those folders under **Model** and **Controllers** folders. After that write a seed method in order to populate database with test data.

Secondly, will write an Ajax functionality (JavaScript) to develop Xml api that will retrieve data from database and display it to the screen. Then after that, develop a set of pages that will store specific “id” for a specific “table” and will display results.

Once all this will be done, deploy the whole web application to Azure cloud.

**The key characteristics of project in terms of functionality**

Here are some of them: -

* Fully responsive and integrated web pages. User can easily navigate from one page to another.
* 4 different database tables that store information and are connected to one another through primary and foreign keys.
* Seed method.
* User can easily insert, delete and update data stored in databases through the set of web pages.
* Xml api’s, for the display of information stored in the databases.
* Retrieval of data from api’s instead of directly from database. For security reason.
* Registration and login to the webpage and much more.
* Users can access webpage online because it will deploy to the cloud.

**List of the project deliverables that will be submitted on project completion: -**

* 6 responsive web pages.
* 4 integrated database tables.
* Insertion, deletion and update data stored in databases through the set of web pages.
* Api’s display the Realtime information stored in database tables.
* Successful retrieval of required information from specific api by using Ajax.
* Running seed method
* Additional identity information of user stored for his account.
* Deployed successfully to the Azure cloud.
* And much more.