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**Assignment:** Enterprise Information System Project Proposal

**Title:** Flight Reservations and bookings using web services and OAuth

**Flight Reservations and bookings using web services and OAuth**

1. **Introduction**

Over the years in the world of transportation, airlines have been the most preferred form of traveling from one region to another by individuals, groups and so on, either for the personal purposes, tourism, businesses or others. Flights are booked ahead of time or same day as scheduled by the airline companies. These Airline companies also provide resources for other organisation, business or websites to serve agents for flight reservations and bookings.

The app that is about to be created would also make use of these resources to achieve the main purpose of the application. We would be introducing and making use of web services and OAuth in order to achieve this.

Web services are software components that communicate using pervasive, standards-based Web technologies including HTTP and XML-based messaging. Web services are designed to be accessed by other applications and vary in complexity from simple operations, such as checking a banking account balance online, to complex processes running CRM (customer relationship management) or enterprise resource planning (ERP) systems (Cavanaugh, 2006).



Figure 1.

OAuth 2.0 is an open authorization protocol specification defined by IETF OAuth WG (Working Group) which enables applications to access each other’s data (Hughes Systique Coporation, 2006).



**Figure 2**

1. **Overall Project Description**

The flight reservation project will be an implementation of online flight reservation and booking system like Skyscanner, which would help customers to search the availability and prices of various airlines and thereby provide a feature for them to make reservations or proceed further to book flights of their choice. This project will also cover major features like registration of users with option to use OAuth, editing of few required details produced the OAuth plugin, in order to get accurate information of the customer(s). The OAuth component would be achieved using majorly Google and LinkedIn APIs. Other social platforms could be included to allow a wide range of options for the customers.

1. **Tools**

This web app would be created using visual studio app on windows 10. The programming language that would be used, would be C# programing language in the ASP.net platform. This would be run on IIS server.

1. **Data Collection**

Data to populate this website will be collected from web services provide through web APIs from either of the sites listed below:

* developer.sabre.com
* SkyScanner.com
* developer.flightstats.com
* Company’s website

The Web Service used would be a RESTful one in JSON (JavaScript Object Notation) format.

1. **Conclusion / Benefits**

Web services would be very much beneficial in the creation of this web app because it supports application and data integration, versatility, code re-use and cost savings. Therefore this would contribute to the success of this project in a short period of time.

# References

Cavanaugh, E., 2006. Web services: Benefits, challenges, and a unique, visual development solution.

Hughes Systique Coporation, 2006. Securing RESTful Web Services Using Spring and OAuth 2.0.