

The background features a decorative graphic consisting of three blue circles of varying sizes, each with a lighter blue ring around its center. These circles are arranged in a descending diagonal line from the top right towards the bottom right. Two thin, light blue lines intersect at the top left and extend diagonally across the page, framing the circles.

Hotel Web Service

A WCF Implementation

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Introduction

The Hotel information retrieval Web service has been created using the Windows Communication Foundation (WCF) version.NET4.5.

Path to Create a WCF project:

1. Open Visual Studio
2. Click File
3. Click New
4. Click Project
5. Select WCF Service Application from list of available projects for Visual C#
6. Give Name for Project Below

This is how you create the WCF project.

(For More information about how to create web service please follow the link)

<http://vhost3.cs.rit.edu/application/documetations/How%20to%20create%20web%20service.pdf>

Technology

Expedia Affiliate Network (EAN) API is very useful to create different functionality. This API is publicly available for free. Please find documentation about how to use EAN API's please click on the link below.

<http://developer.ean.com/docs>

Functions available

1. **getListOfHotel**

This function provides the list of hotel near given location. For this moment the hotel search is restricted only for USA.

Input parameters: city name in string
state name in string

Output: List of hotel name in Json format.

1. **getAvailOfHotel**

This function provides the available rooms and their information for given hotel.

Input parameters: hotel id in string
Arrival date in string (format mm/dd/yyyy)
Departure date in string (format mm/dd/yyyy)

Output: List of rooms in Json format.

Snippets

Function getListOfHotel

```
/**
 * Provides the list of hotels in given city and state
 *
 * @param    city_name    (string) it is city name
 * @param    state_name   (string) it is state name
 *
 * @return    json object
 */
public string getListOfHotel(string city_name ,string state_name)
{
    string output;
    using (WebClient client = new WebClient())
    {

        string input = "http://api.ean.com/ean-services/rs/hotel/v3/list?_type=json&locale=en_US&currencyCode=USD&numberOfResults=15&apiKey=" + key + "&stateProvinceCode=" + state_name
        output = client.DownloadString(input);

        //JsonValue value = JsonValue.Parse(output);
        var jss = new JavaScriptSerializer();
        var dict = jss.Deserialize<Dictionary<string, dynamic>>(output);

        return (jss.Serialize(dict["HotelListResponse"]));
    }
}
```

Function getAvailOfHotel

```
/**
 * Provides the room availability for given hotel
 *
 * @param hotel_id (string) hotel id
 * @param arrival_date (string) it is arrival date in form "mm/dd/yyyy"
 * @param departure_date (string) it is departure date in form "mm/dd/yyyy"
 * @return json object
 */

public string getAvailOfHotel(string hotel_id, string arrival_date, string departure_date)
{
    string output;
    using (WebClient client = new WebClient())
    {

        string input = "http://api.ean.com/ean-services/rs/hotel/v3/avail?_type=json&locale=en_US&currencyCode=USD&apiKey="
        output = client.DownloadString(input);

        //JsonValue value = JsonValue.Parse(output);
        var jss = new JavaScriptSerializer();
        var dict = jss.Deserialize<Dictionary<string, dynamic>>(output);
        return (jss.Serialize(dict));
    }
}
,
```

Notes:

Do not forget to get API key from EAN site.

Also include following at the top

```
using System.Text;  
using System.Web;  
using System.Web.Script.Serialization;  
using System.Net;
```

Publishing Web Service

Please click on following link and follow the instruction

<http://vhost3.cs.rit.edu/application/documetations/Publish%20web%20service%20to%20IIS.pdf>