



# WolframeAlpha Web Service

A WCF Implementation using Wolframe Alpha API

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## Introduction

Wolframe Alpha 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

The wolframe alpha API is very useful to create different functionality for weather web service. This API is publicly available for free. Please find documentation about how to use API's please click on the link below.

<http://products.wolframalpha.com/api/documentation.html#1>

## Functions available

- **getWolfram**

This function works same as Google search works. This function provides the information for given search string.

Input parameters: input in string

Output: information in Json format.

## Snippets

### Function getWeather

```
/**
 * Get the outfrom Wolfram Alpha in json format.
 *
 * @param    input    (string) it is input string
 *
 * @return    json object
 */
public string getWolfram(string input)
{
    string output;
    using (WebClient client = new WebClient())
    {
        string input_xml = "http://api.wolframalpha.com/v2/query?input=" + input + "&appid=" + key ;
        output = client.DownloadString(input_xml);

        XmlDocument doc = new XmlDocument();
        doc.LoadXml(output);

        string json = Newtonsoft.Json.JsonConvert.SerializeXmlNode(doc);
        var jss = new JavaScriptSerializer();
        var dict = jss.Deserialize<Dictionary<string, dynamic>>(json);
        return (jss.Serialize(dict));
    }
}
```

## Notes:

Please make sure you have API key.

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/documentations/Publish%20web%20service%20to%20IIS.pdf>