Creating Your First Bing Web Search Application

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Overview

REST API

Bing Web Search API / Postman

Demo

- REST API
- Web application

Before We Start

Visual Studio 2019 community edition / C# / ASP.net core 2.2

Postman ADE

Bing Search Key

How REST API Works

REST stands for Representational State Transfer and it's not a protocol but rather a style

REST API Components

Endpoints

URL/Address to call API

Request Headers

Authentication

Request Parameters

Key/Value Pairs

Request Method

GET/POST
PUT/DELETE/PATCH

Response Body

JSON/HTML/XML

```
https://<nameofschool>/details

https://<nameofschool>/class/9

https://<nameofschool>/class/9/student/15

https://<nameofschool>/class/9/add
```

Examples

Bing Web Search API – Deep Dive

Bing Web Search REST API Components

Parameters

- q
- count
- safesearch
- freshness

Headers

- ocp-apim-subscription-key
- accept
- bingAPIs-market

Response

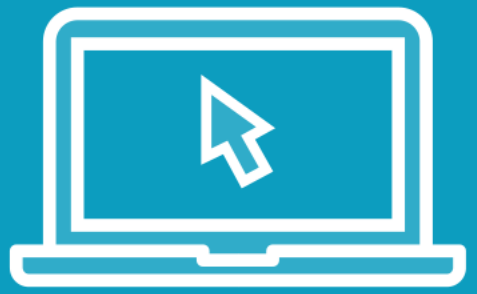
- type
- rankingresponse
- x-msedge-clientid
- webpages, images

```
https://api.cognitive.microsoft.com/bing/v7.0/search

https://api.cognitive.microsoft.com/bing/v7.0/search?q=azure

https://api.cognitive.microsoft.com/bing/v7.0/search?q=azure&
count=5
```

Examples

Bing Web Search API Endpoints

Demo



Bing Web Search REST API

- Endpoints
- Headers
- Parameters
- Response

Demo

Web application

- .Net core 2.2
- C#
- -Search page

Adding Search

Steps

- Create a form
- Create a webpage class
- Request and response
- C# dynamic type
- Newtonsoft json

Search Form

```
 <div class="form-group">
        <label asp-for="SearchQuery" class="col-md-2 control-
label">Query: </label>
        <div class="col-md-5">
            <input asp-for="SearchQuery" class="form-control" />
    </div>
        </div>

 <div class="form-group">
        <label asp-for="SearchCount" class="col-md-2 control-
label">Query: </label>
        <div class="col-md-5">
            <input asp-for="SearchCount" class="form-control" />
    </div>
        </div>
```


```
public SearchModel(IConfiguration configuration )
        {
            Configuration = configuration;
            SubKey = Configuration.GetValue<string>("Key");
        }
```

Subscription Key

```
class WebPage
  {
      string WebId { get; set; }
      string WebName { get; set; }
      string WebUrl { get; set; }
      string WebSnippet { get; set; }

  }
```

Webpage Class

```
WebRequest request =
HttpWebRequest.Create(EndPoin
t);

request.Headers["Ocp-Apim-
Subscription-Key"] = SubKey;

HttpWebResponse response =
(HttpWebResponse)request.GetR
esponseAsync().Result;

ResponseString = new
StreamReader(response.GetResp
onseStream()).ReadToEnd();
```

- Create the request with the endpoint
- Set the header for the key
- Get the Http response
- Store the response in a string variable

```
dynamic dynamicResponseObj =
JsonConvert.DeserializeObject<dynamic>(ResponseString);


        dynamicResponseObj.webPages.value[0].name
```

Dynamic Class

Summary

Bing Web Search API

- Endpoints, headers, and parameters
- Response

Bing Web Search Application

- Search page