

The function below illustrates us all the data from any Http Response. As a parameter it takes the content i.e. `Task<HttpResponseMessage>`. This method is static and asynchronous one. I have extract all the possible data which may be given to HttpClient as a response to his/her queries.

```
async static void ShowContent(Task<HttpResponseMessage> content)
{
    Console.WriteLine("Http Version: " + content.Result.Version + "\n");

    Console.WriteLine("Http StatusCode: " + content.Result.StatusCode +
"\n");

    Console.WriteLine("Http RequestMessqge: " +
content.Result.RequestMessage + "\n");

    Console.WriteLine("Http ReasonPhrase: " + content.Result.ReasonPhrase
+ "\n");

    Console.WriteLine("Http AcceptRanges: " +
content.Result.Headers.AcceptRanges + "\n");

    Console.WriteLine("Http Age: " + content.Result.Headers.Age + "\n");

    Console.WriteLine("Http CacheControl: " +
content.Result.Headers.CacheControl + "\n");

    Console.WriteLine("Http Connection: " +
content.Result.Headers.Connection + "\n");

    Console.WriteLine("Http ConnectionClose: " +
content.Result.Headers.ConnectionClose + "\n");

    Console.WriteLine("Http Date: " + content.Result.Headers.Date.Value +
"\n");

    Console.WriteLine("Http ETag: " + content.Result.Headers.ETag + "\n");

    Console.WriteLine("Http Location: " + content.Result.Headers.Location
+ "\n");

    Console.WriteLine("Http Pragma: " + content.Result.Headers.Pragma +
"\n");

    Console.WriteLine("Http ProxyAuthenticate: " +
content.Result.Headers.ProxyAuthenticate + "\n");

    Console.WriteLine("Http RetryAfter: " +
content.Result.Headers.RetryAfter + "\n");

    Console.WriteLine("Http Server: " + content.Result.Headers.Server +
"\n");
}
```

```
        Console.WriteLine("Http Trailer: " + content.Result.Headers.Trailer +
"\n");

        Console.WriteLine("Http TransferEncoding: " +
content.Result.Headers.TransferEncoding + "\n");

        Console.WriteLine("Http TransferEncodingChunked: " +
content.Result.Headers.TransferEncodingChunked + "\n");

        Console.WriteLine("Http Upgrade: " + content.Result.Headers.Upgrade +
"\n");

        Console.WriteLine("Http Vary: " + content.Result.Headers.Vary + "\n");

        Console.WriteLine("Http Via: " + content.Result.Headers.Via + "\n");

        Console.WriteLine("Http Warning: " + content.Result.Headers.Warning +
"\n");

        Console.WriteLine("Http WwwAuthenticate: " +
content.Result.Headers.WwwAuthenticate + "\n");

        Console.WriteLine("Http Content: " + await
content.Result.Content.ReadAsStringAsync() + "\n");

        Console.WriteLine("Http Headers: " + content.Result.Headers + "\n");
    }
```

In order to process the GET request response:

```
static async Task<HttpResponseMessage> HttpGetRequest_response(string url)
{
    using (HttpClient client = new HttpClient())
    {
        HttpResponseMessage response = await client.GetAsync(url);
        {
            return response;
        }
    }
}
```

All this method needs is an URL to web resource. Inside the method I'm creating the `HttpClient` object in `using` block and I'm doing the next manipulations on the data. The fact that the object was created in the using block says us that inside it was implemented the `Dispose` method and it will be automatically applied when we'll live the respective block of code.

As a result the method returns the response on client's request.

```
string url = "https://httpbin.org/get";  
// full data on GET request  
using (var content = HttpGetRequest_response(url))  
{  
    ShowContent(content);  
}
```

All we need in the following step is to use the response of the previous method in the **using** block and to unpack the result of the returning value. In order to read all the possible information we should enter the respective content in the **Showcontent** method.

**If the type of the return object is asynchronous one, we should write the *await* keyword in order to do any manipulation on the respective data**

*For another requests the logic is the same, but the main difference is that some of them require additional parameters:*

### **POST**

```
static async Task<HttpResponseMessage> HttpPostRequest_response(string url,  
List<KeyValuePair<string, string>> iterable)  
{  
    using (HttpClient client = new HttpClient())  
    {  
        using (HttpContent queries = new FormUrlEncodedContent(iterable))  
        {  
            HttpResponseMessage response = await client.PostAsync(url, queries);  
            return response;  
        }  
    }  
}
```

### **DELETE**

```
static async Task<HttpResponseMessage> HttpDeleteRequest_response(string url)  
{  
    using (HttpClient client = new HttpClient())  
    {  
        HttpResponseMessage response = await client.DeleteAsync(url);  
        return response;  
    }  
}
```

### **PUT**

```
static async Task<HttpResponseMessage> HttpPutRequest_response(string url,
List<KeyValuePair<string, string>> iterable)
{
    using (HttpClient client = new HttpClient())
    {
        using (HttpContent queries = new FormUrlEncodedContent(iterable))
        {
            HttpResponseMessage response = await client.PutAsync(url, queries);
            return response;
        }
    }
}
```

Calling methods in the programm:

```
static void Main(string[] args)
{
    string url = "https://httpbin.org/get";

    // full data on GET request
    using (var content = HttpGetRequest_response(url))
    {
        ShowContent(content);
    }

    Console.WriteLine("=====\n\n");

    url = "https://httpbin.org/post";

    // full data on Post request
    List<KeyValuePair<string, string>> queries = new
List<KeyValuePair<string, string>>()
    {
        new KeyValuePair<string, string>("accept", "application/json")
    };

    using (var content = HttpPostRequest_response(url, queries))
    {
        ShowContent(content);
    }

    Console.WriteLine("=====\n\n");

    url = "https://httpbin.org/put";
    using (var content = HttpPutRequest_response(url, queries))
    {
        ShowContent(content);
    }
}
```

```
    }

    Console.WriteLine("=====
    ===\n\n");

    url = "https://httpbin.org/delete";
    using (var content = HttpDeleteRequest_response(url))
    {
        ShowContent(content);
    }

    Console.WriteLine("=====
    ===\n\n");

    Console.ReadKey();
}
```

#### Results:

```
Http Version: 1.1

Http StatusCode: OK

Http RequestMessqge: Method: GET, RequestUri: 'https://httpbin.org/get', Version:
1.1, Content: <null>, Headers:
{
}

Http ReasonPhrase: OK

Http AcceptRanges:

Http Age:

Http CacheControl:

Http Connection: keep-alive

Http ConnectionClose:

Http Date: 10.03.2019 9:53:13 +00:00

Http ETag:

Http Location:

Http Pragma:

Http ProxyAuthenticate:
```

Http RetryAfter:

Http Server: nginx

Http Trailer:

Http TransferEncoding:

Http TransferEncodingChunked:

Http Upgrade:

Http Vary:

Http Via:

Http Warning:

Http WwwAuthenticate:

```
Http Content: {  
  "args": {},  
  "headers": {  
    "Host": "httpbin.org"  
  },  
  "origin": "92.115.245.74, 92.115.245.74",  
  "url": "https://httpbin.org/get"  
}
```

Http Headers: Access-Control-Allow-Credentials: true

Access-Control-Allow-Origin: \*

Connection: keep-alive

Date: Sun, 10 Mar 2019 09:53:13 GMT

Server: nginx

=====

Http Version: 1.1

Http StatusCode: OK

```
Http RequestMessqge: Method: POST, RequestUri: 'https://httpbin.org/post',  
Version: 1.1, Content: System.Net.Http.FormUrlEncodedContent, Headers:  
{  
  Content-Type: application/x-www-form-urlencoded  
  Content-Length: 25  
}
```

Http ReasonPhrase: OK

Http AcceptRanges:

```
Http Age:

Http CacheControl:

Http Connection: keep-alive

Http ConnectionClose:

Http Date: 10.03.2019 9:53:14 +00:00

Http ETag:

Http Location:

Http Pragma:

Http ProxyAuthenticate:

Http RetryAfter:

Http Server: nginx

Http Trailer:

Http TransferEncoding:

Http TransferEncodingChunked:

Http Upgrade:

Http Vary:

Http Via:

Http Warning:

Http WwwAuthenticate:

Http Content: {
  "args": {},
  "data": "",
  "files": {},
  "form": {
    "accept": "application/json"
  },
  "headers": {
    "Content-Length": "25",
    "Content-Type": "application/x-www-form-urlencoded",
    "Host": "httpbin.org"
  },
  "json": null,
  "origin": "92.115.245.74, 92.115.245.74",
  "url": "https://httpbin.org/post"
}
```

Http Headers: Access-Control-Allow-Credentials: true  
Access-Control-Allow-Origin: \*  
Connection: keep-alive  
Date: Sun, 10 Mar 2019 09:53:14 GMT  
Server: nginx

=====

Http Version: 1.1

Http StatusCode: OK

Http RequestMessage: Method: PUT, RequestUri: 'https://httpbin.org/put', Version: 1.1, Content: System.Net.Http.FormUrlEncodedContent, Headers: {  
    Content-Type: application/x-www-form-urlencoded  
    Content-Length: 25  
}

Http ReasonPhrase: OK

Http AcceptRanges:

Http Age:

Http CacheControl:

Http Connection: keep-alive

Http ConnectionClose:

Http Date: 10.03.2019 9:53:15 +00:00

Http ETag:

Http Location:

Http Pragma:

Http ProxyAuthenticate:

Http RetryAfter:

Http Server: nginx

Http Trailer:

Http TransferEncoding:

Http TransferEncodingChunked:



Http Upgrade:

Http Vary:

Http Via:

Http Warning:

Http WwwAuthenticate:

```
Http Content: {
  "args": {},
  "data": "",
  "files": {},
  "form": {
    "accept": "application/json"
  },
  "headers": {
    "Content-Length": "25",
    "Content-Type": "application/x-www-form-urlencoded",
    "Host": "httpbin.org"
  },
  "json": null,
  "origin": "92.115.245.74, 92.115.245.74",
  "url": "https://httpbin.org/put"
}
```

Http Headers: Access-Control-Allow-Credentials: true

Access-Control-Allow-Origin: \*

Connection: keep-alive

Date: Sun, 10 Mar 2019 09:53:15 GMT

Server: nginx

=====

Http Version: 1.1

Http StatusCode: OK

Http RequestMessqge: Method: DELETE, RequestUri: 'https://httpbin.org/delete',  
Version: 1.1, Content: <null>, Headers:

```
{
}
```

Http ReasonPhrase: OK

Http AcceptRanges:

Http Age:

Http CacheControl:

Http Connection: keep-alive

Http ConnectionClose:

Http Date: 10.03.2019 9:53:15 +00:00

Http ETag:

Http Location:

Http Pragma:

Http ProxyAuthenticate:

Http RetryAfter:

Http Server: nginx

Http Trailer:

Http TransferEncoding:

Http TransferEncodingChunked:

Http Upgrade:

Http Vary:

Http Via:

Http Warning:

Http WwwAuthenticate:

```
Http Content: {  
  "args": {},  
  "data": "",  
  "files": {},  
  "form": {},  
  "headers": {  
    "Host": "httpbin.org"  
  },  
  "json": null,  
  "origin": "92.115.245.74, 92.115.245.74",  
  "url": "https://httpbin.org/delete"  
}
```

Http Headers: Access-Control-Allow-Credentials: true

Access-Control-Allow-Origin: \*

Connection: keep-alive

Date: Sun, 10 Mar 2019 09:53:15 GMT

Server: nginx

```
=====
```