**WEB API**(Saptesh D.)



**Mostly we used DB first approch..**

**What is Web API?**

To put it in simple terms, API is some kind of interface which has a set of functions that allow programmers to access specific features or data of an application, operating system or other services.

Web API as the name suggests, is an API over the web which can be accessed using HTTP protocol.

It is a concept and not a technology. We can build Web API using different technologies such as Java, .NET etc.

**ASP.NET Web API**

The ASP.NET Web API is an extensible framework for building HTTP based services that can be accessed in different applications on different platforms such as web, windows, mobile etc.

It works more or less the same way as ASP.NET MVC web application except that it sends data as a response instead of html view.

It is like a webservice or WCF service but the exception is that it only supports HTTP protocol.



**ASP.NET Web API Characteristics**

1. ASP.NET Web API is an ideal platform for building RESTful services.
2. ASP.NET Web API is built on top of ASP.NET and supports ASP.NET request/response pipeline
3. ASP.NET Web API maps HTTP verbs to method names.
4. ASP.NET Web API supports different formats of response data. Built-in support for JSON, XML, BSON format.
5. ASP.NET Web API can be hosted in IIS, Self-hosted or other web server that supports .NET 4.0+.
6. ASP.NET Web API framework includes new HttpClient to communicate with Web API server. HttpClient can be used in ASP.MVC server side, Windows Form application, Console application or other apps.

**You can create a Web API project in two ways.**

1. Web API with MVC Project
2. Stand-alone Web API Project

**Web API Controllers**

Web API Controller is similar to ASP.NET MVC controller. It handles incoming HTTP requests and send response back to the caller.

Web API controller is a **class** which can be created under the Controllers folder or any other folder under your project's root folder.

The name of a controller class must end with "**Controller**" and it must be derived from System.Web.Http.**ApiController** class.

All the public methods of the controller are called **action methods.**



**Get Method**

 **using http response message**



Post Method



The Employee parameter is decorated with the [FromBody] attribute.

[FormBody] attribute tells the Web API to get the employee data from the request body.



Put method

**The PUT method in Web API allows us to update an item**. Here, we want to update the employee by Id. Include the following Put method in EmployeesController. Notice the id of the employee that we want to update and the Employee object with which we want to update are being passed as parameters to the Post method. The Employee parameter is decorated with the [FromBody] attribute. This tells Web API to get employee data from the request body.



**Delete Method**



