5.3 HTTP request



This section will guide you to:

* Handle HTTP requests

This guide has six subsections, namely:

5.3.1 Creating an ASP.NET MVC Web API project to generate a list of students

5.3.2 Creating a Student Model

5.3.3 Creating a Student Controller

5.3.4 Building the project

5.3.5 Publishing and running the project

5.3.6 Pushing the code to your GitHub repositories

**Step 5.3.1:** Creating an ASP.NET MVC Web API project to generate a list of students

* Open Visual Studio.
* From the top menu, select **File->New->Project**.
* In **Create A New Project** screen, select **ASP.NET Web Application (.NET Framework)** from the list of available project types and click on **Next**.
* Enter **Project Name** as **Phase3Section5.5** and click on **Create**.
* From the list of project sub-types, choose **Web API** and uncheck **Configure for HTTPS.** Click on **Create**.
* This will create the files for an ASP.NET MVC Web API project.

**Step 5.3.2:** Creating a Student Model

* In the **Solution Explorer**,right click the **Models** folder and choose **Add->Class**.
* Enter **Name** as Student.cs and click **Add**.
* Add the following code:

**using** System;

**using** System.Collections.Generic;

**using** System.Linq;

**using** System.Web;

**namespace** Phase3Section5.\_5.Models

{

**public** **class** Student

{

**public** **string** Name { **get**; **set**; }

**public** **string** Class { **get**; **set**; }

**public** **string** Address { **get**; **set**; }

**public** **string** Email { **get**; **set**; }

}

}

**Step 5.3.3:** Creating a Student Controller

* In the **Solution Explorer**,right click the **Controllers** folder and choose **Add->Controller**.
* From the list of controller types, choose **Web API 2.0 Controller – Empty** and click **Add**.
* Put **Controller Name** as StudentController.
* Add the following code:

**using** System;

**using** System.Collections.Generic;

**using** System.Linq;

**using** System.Net;

**using** System.Net.Http;

**using** System.Web.Http;

**using** System.Web.Mvc;

**using** Phase3Section5.\_5.Models;

**namespace** Phase3Section5.\_5.Controllers

{

**public** **class** StudentController : ApiController

{

Models.Student[] students = **new** Models.Student[]{

**new** Models.Student {Name="Walter", Class="7A", Address="Address 1", Email="walter@email.com" },

**new** Models.Student {Name="Matthew", Class="7A", Address="Address 2", Email="matthew@email.com" },

**new** Models.Student {Name="Anne", Class="7A", Address="Address 3", Email="anne@email.com" },

};

**public** IEnumerable<Models.Student> GetAllStudents()

{

**return** students;

}

**public** IHttpActionResult GetStudent(**string** name)

{

**var** student = students.FirstOrDefault((p) => p.Name == name);

**if** (student == **null**)

{

**return** NotFound();

}

**return** Ok(student);

}

}

}

**Step 5.3.4:** Building the project

* From the top menu, choose **Build->Build Solution**.
* If any compile errors are shown, fix them as required.

**Step 5.3.5:** Publishing and running the project

* From the top menu, select **Debug->Start Without Debugging**.
* This will execute the program in the default browser.
* Change the url to [http://localhost:xxxx/api/student](about:blank) to see the list of students in xml format.
* Change the url to [http://localhost:xxxx/api/student](about:blank)?name=Walter to search and display a particular student by name.

**Step 5.3.6:** Pushing the code to your GitHub repositories

Open your command prompt and navigate to the folder where you have created your files.

cd <folder path>

Initialize your repository using the following command:

git init

Add all the files to your git repository using the following command:

git add .

Commit the changes using the following command:

git commit -m “Changes have been committed.”

Push the files to the folder you created initially using the following command:

git push -u origin master