

Name: Aryan Yadav

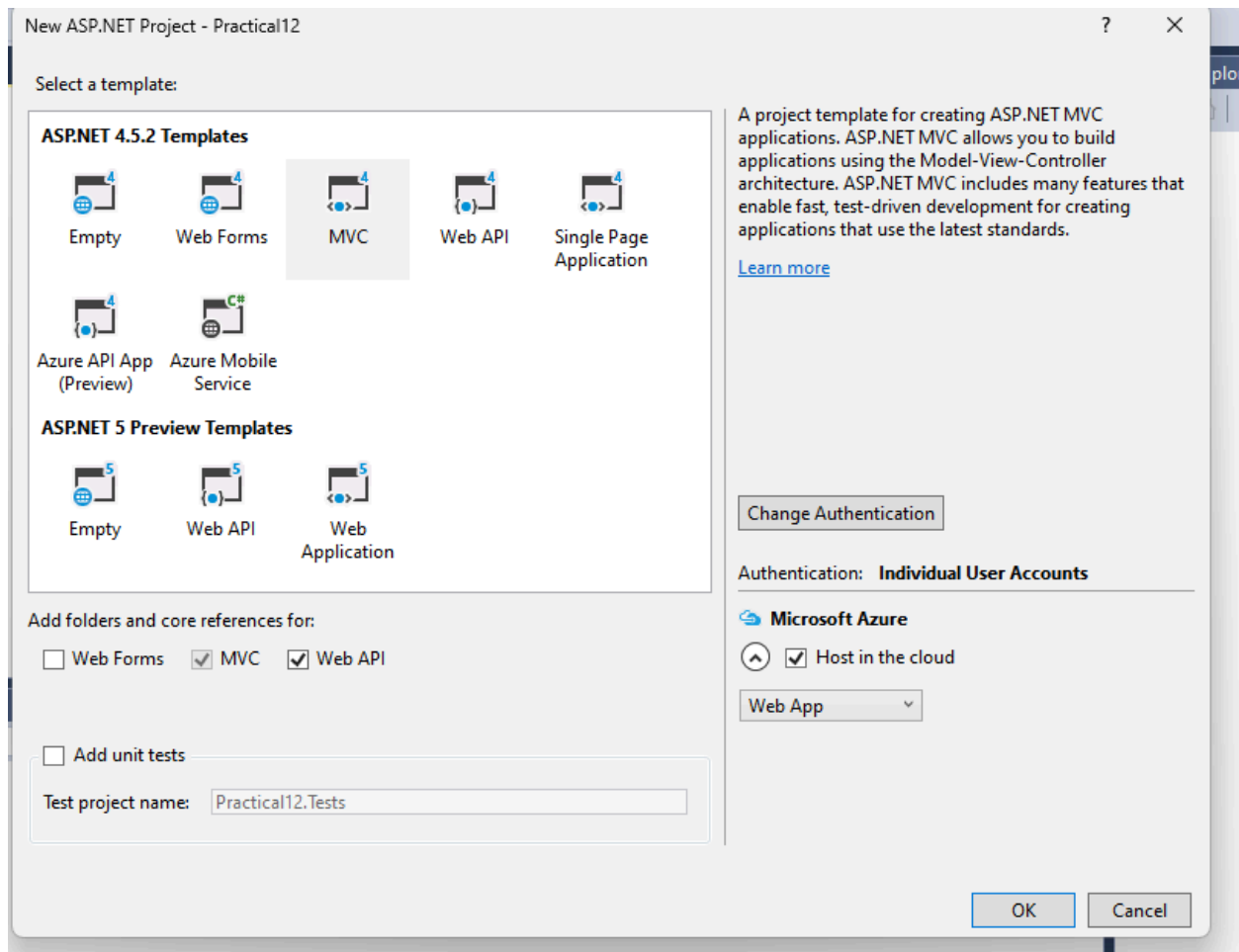
Class: SYIT

Subject: ASP.net

Date: 23rd February 2024

Practical 12

Aim: Working with ASP.net Web API in MVC.



Name: Aryan Yadav

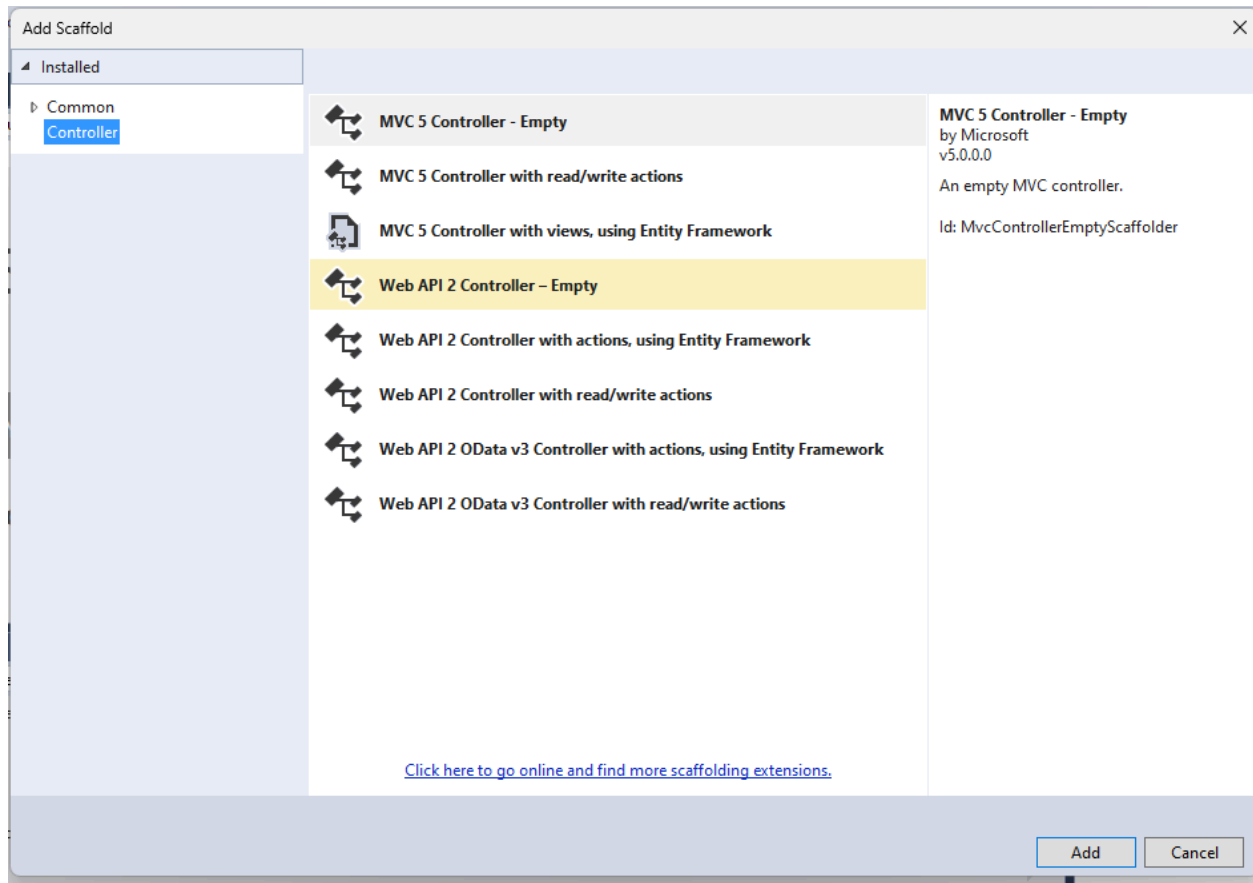
Class: SYIT

Subject: ASP.net

Date: 23rd February 2024

1. Web API with controller

Add a Web API 2-empty controller



Name: Aryan Yadav

Class: SYIT

Subject: ASP.net

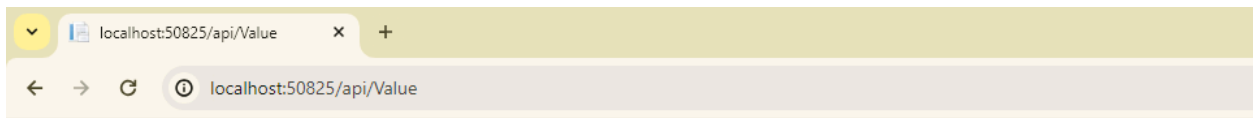
Date: 23rd February 2024

ValueController.cs



```
using System.Net;
using System.Net.Http;
using System.Web.Http;

namespace Practical12.Controllers
{
    public class ValueController : ApiController
    {
        public IHttpActionResult Get()
        {
            return Ok("Aryan");
        }
    }
}
```



localhost:50825/api/Value

localhost:50825/api/Value

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<string xmlns="http://schemas.microsoft.com/2003/10/Serialization/">Aryan</string>
```

Name: Aryan Yadav

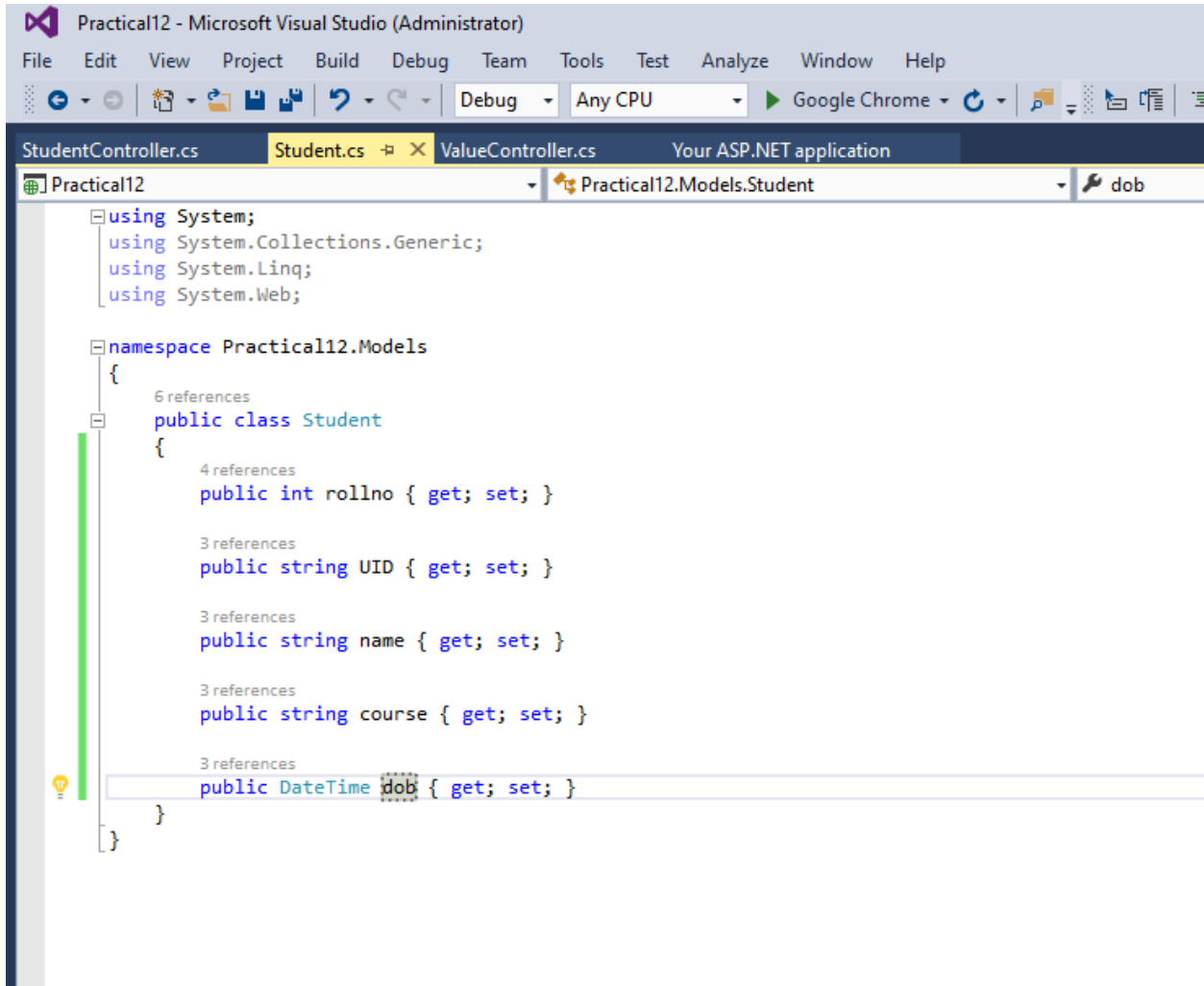
Class: SYIT

Subject: ASP.net

Date: 23rd February 2024

2. Implementing Web API with controller and model

Student.cs



```
Practical12 - Microsoft Visual Studio (Administrator)
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Debug Any CPU Google Chrome
StudentController.cs Student.cs ValueController.cs Your ASP.NET application
Practical12 Practical12.Models.Student dob

using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;

namespace Practical12.Models
{
    6 references
    public class Student
    {
        4 references
        public int rollno { get; set; }

        3 references
        public string UID { get; set; }

        3 references
        public string name { get; set; }

        3 references
        public string course { get; set; }

        3 references
        public DateTime dob { get; set; }
    }
}
```

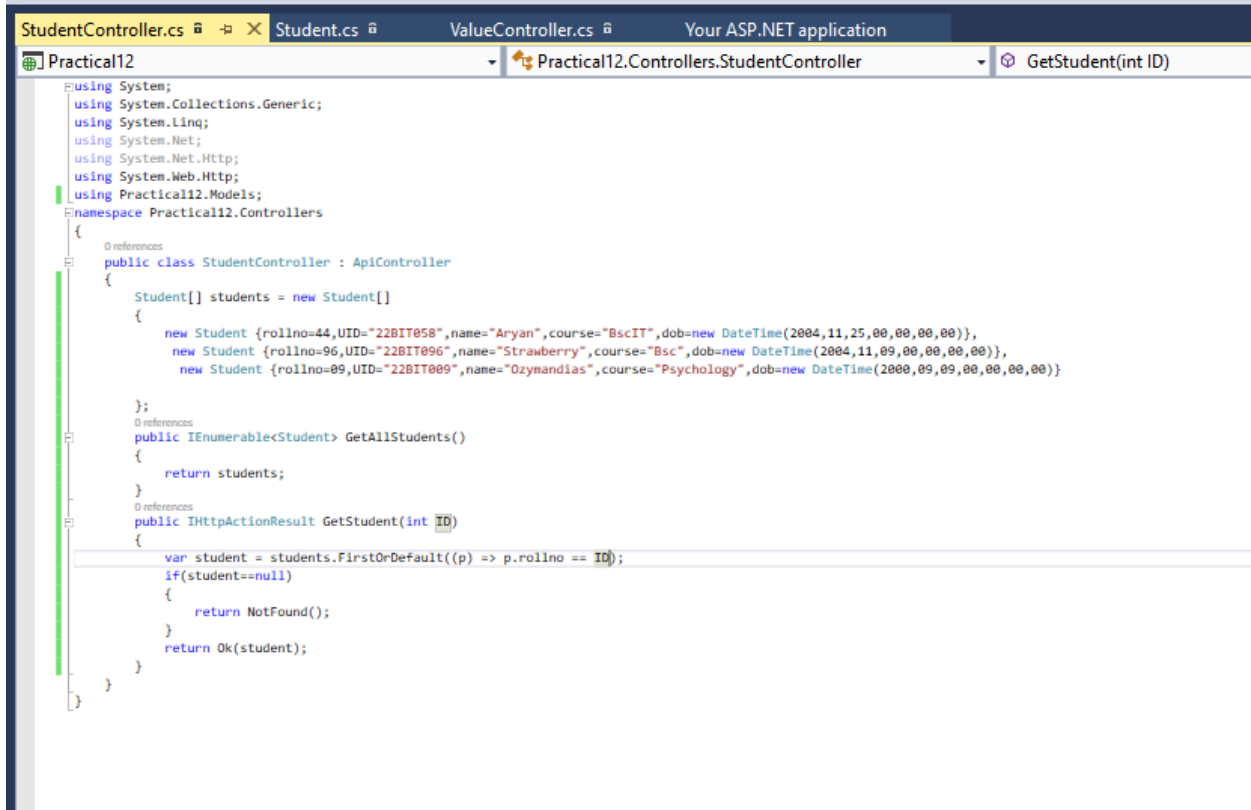
Name: Aryan Yadav

Class: SYIT

Subject: ASP.net

Date: 23rd February 2024

StudentController.cs



The screenshot shows the Visual Studio IDE with the 'StudentController.cs' file open. The file is part of a project named 'Practical12' under the namespace 'Practical12.Controllers'. The code defines a 'StudentController' class that inherits from 'ApiController'. It contains a list of 'Student' objects and two actions: 'GetAllStudents()' and 'GetStudent(int ID)'. The 'GetStudent' method uses 'FirstOrDefault' to find a student by their roll number and returns 'NotFound()' if not found, or 'Ok(student)' if found.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Net;
using System.Net.Http;
using System.Web.Http;
using Practical12.Models;

namespace Practical12.Controllers
{
    [AllowAnonymous]
    public class StudentController : ApiController
    {
        Student[] students = new Student[]
        {
            new Student {rollno=44,UID="22BIT058",name="Aryan",course="BscIT",dob=new DateTime(2004,11,25,00,00,00)},
            new Student {rollno=96,UID="22BIT096",name="Strawberry",course="Bsc",dob=new DateTime(2004,11,09,00,00,00)},
            new Student {rollno=09,UID="22BIT009",name="Ozymandias",course="Psychology",dob=new DateTime(2000,09,09,00,00,00)}
        };

        public IEnumerable<Student> GetAllStudents()
        {
            return students;
        }

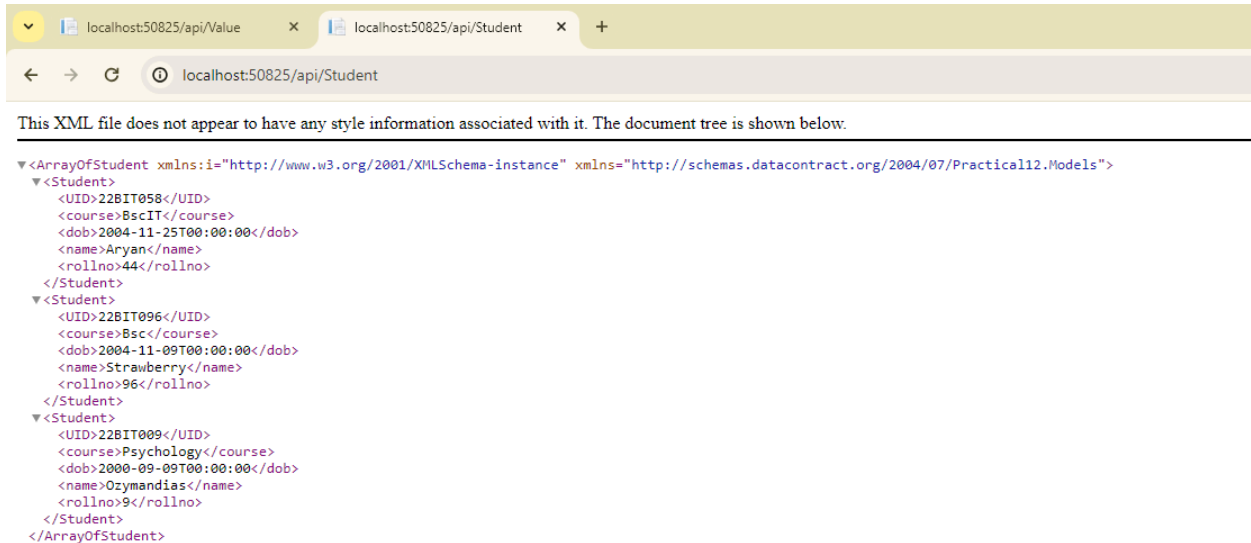
        public IHttpActionResult GetStudent(int ID)
        {
            var student = students.FirstOrDefault(p => p.rollno == ID);
            if(student==null)
            {
                return NotFound();
            }
            return Ok(student);
        }
    }
}
```

Name: Aryan Yadav

Class: SYIT

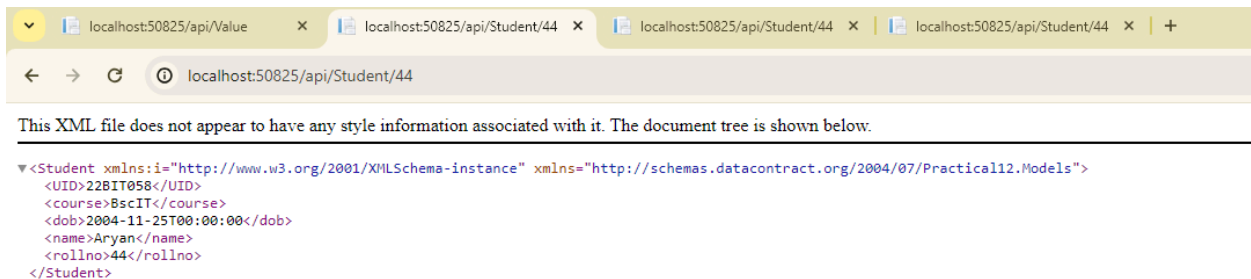
Subject: ASP.net

Date: 23rd February 2024



The screenshot shows a web browser with two tabs: 'localhost:50825/api/Value' and 'localhost:50825/api/Student'. The address bar shows 'localhost:50825/api/Student'. Below the address bar, a message states: 'This XML file does not appear to have any style information associated with it. The document tree is shown below.' The XML document tree is displayed as follows:

```
<ArrayOfStudent xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/Practical12.Models">
  <Student>
    <UID>22BIT058</UID>
    <course>BscIT</course>
    <dob>2004-11-25T00:00:00</dob>
    <name>Aryan</name>
    <rollno>44</rollno>
  </Student>
  <Student>
    <UID>22BIT096</UID>
    <course>Bsc</course>
    <dob>2004-11-09T00:00:00</dob>
    <name>Strawberry</name>
    <rollno>96</rollno>
  </Student>
  <Student>
    <UID>22BIT009</UID>
    <course>Psychology</course>
    <dob>2000-09-09T00:00:00</dob>
    <name>Ozymandias</name>
    <rollno>9</rollno>
  </Student>
</ArrayOfStudent>
```



The screenshot shows a web browser with four tabs: 'localhost:50825/api/Value', 'localhost:50825/api/Student/44', 'localhost:50825/api/Student/44', and 'localhost:50825/api/Student/44'. The address bar shows 'localhost:50825/api/Student/44'. Below the address bar, a message states: 'This XML file does not appear to have any style information associated with it. The document tree is shown below.' The XML document tree is displayed as follows:

```
<Student xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/Practical12.Models">
  <UID>22BIT058</UID>
  <course>BscIT</course>
  <dob>2004-11-25T00:00:00</dob>
  <name>Aryan</name>
  <rollno>44</rollno>
</Student>
```

Name: Aryan Yadav

Class: SYIT

Subject: ASP.net

Date: 23rd February 2024

