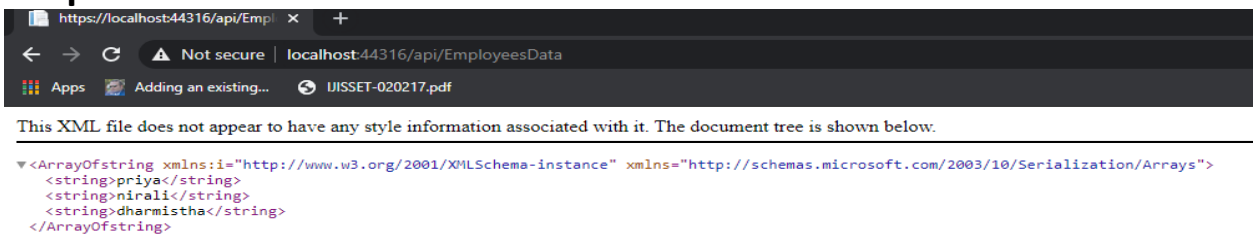
1.Creating controller and creating first web api project.

Web api Controller file:

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

namespace my_first_web_api.Controllers
{
   public class EmployeesDataController : ApiController
   {
      public string[] myemployees = { "priya", "nirali", "dharmistha" };
      [HttpGet]
      public string[] GetEmployees()
      {
         return myemployees;
      }
      [HttpGet]
      public string GetEmployeeByIndex(int id)
      {
         return myemployees[id];
      }
   }
}
```

Output:



2. create simple model , view an controller for display data from model class

Mvc controller:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Mvc;
using WebApplication2.Models;

namespace WebApplication2.Controllers
{
   public class HomeController : Controller
   {
      public ActionResult Index()
      {
         ViewBag.Title = "Home Page";

         return View();
      }
      public ActionResult displayinfo(students stu_data)
      {
         return View(stu_data);
      }
   }
}
```

Model :

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

namespace WebApplication2.Models
{
   public class students
   {
      public int id { get; set; }
      public string name { get; set; }
```

```
    }
}
```

Index.cshtml:

```
@model WebApplication2.Models.students
@{
    ViewBag.Title = "Index";
}

<h2>Index</h2>

@using (Html.BeginForm("displayinfo", "Home"))
{
    @Html.Label("student id :: ");
    @Html.TextBoxFor(m=>m.id)<br/>
    @Html.Label("student name :: ");
    @Html.TextBoxFor(m=>m.name)<br/><br/>

    <input type = "submit" value="send"/>


}
```

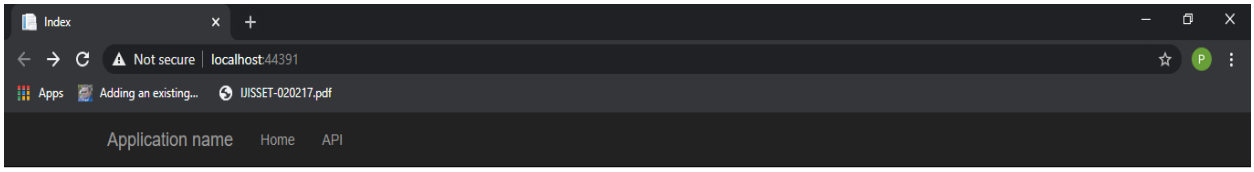
Displayinfo.cshtml

```
@model WebApplication2.Models.students
@{
    ViewBag.Title = "displayinfo";
}

<h2>displayinfo</h2>

student id   @Model.id<br/>
student name   @Model.name<br/>
```

OUTPUT:

This is index page where i have written name and id and then click on submit button.

After that the displatinfo page will be renderend and using model class it will show that id and name on the screen.



Index

student id :: 1

student name :: priya

send

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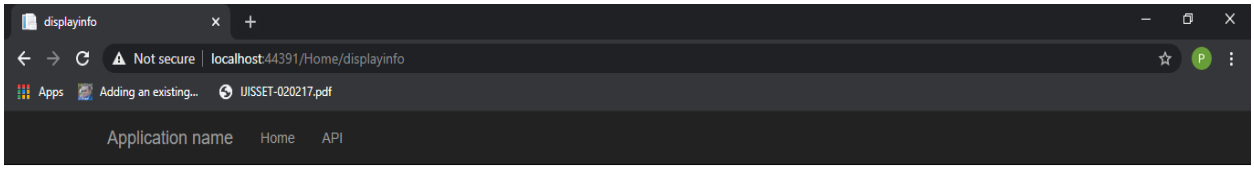

displayinfo

student id 1

student name priya

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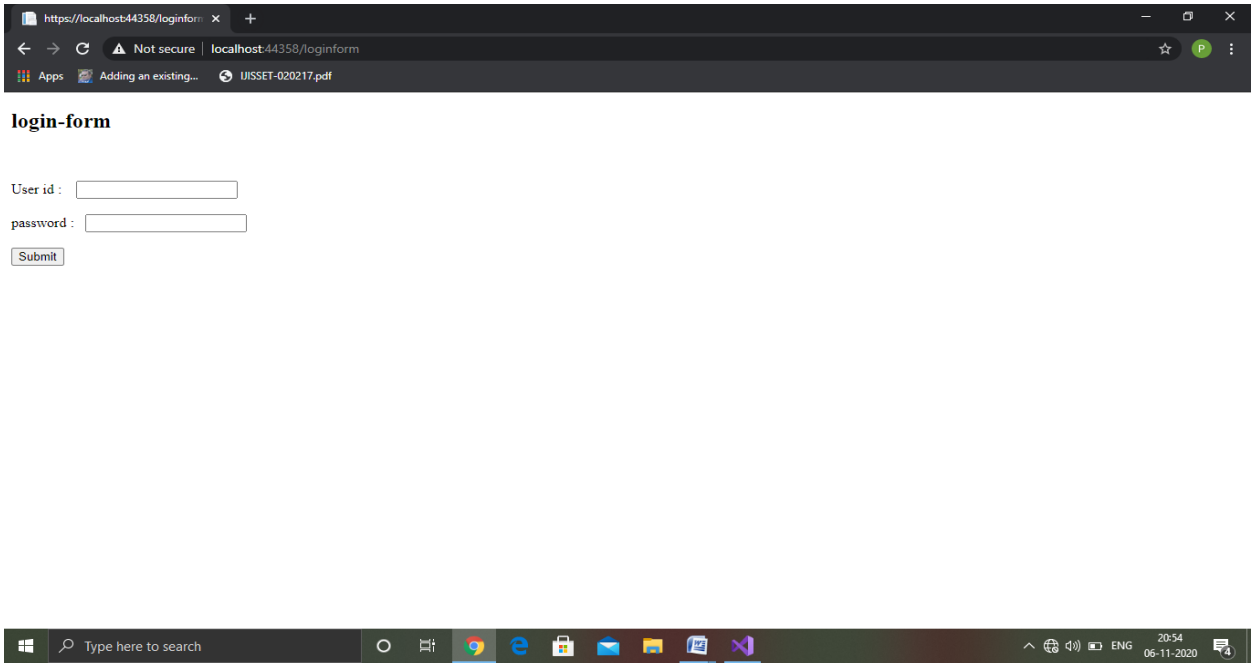
3. create simple web form using asp.net

Loginform.aspx file

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace WebApplication_using_webform
{
    public partial class loginform : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void TextBox1_TextChanged(object sender, EventArgs e)
        {



        }
    }
}
```

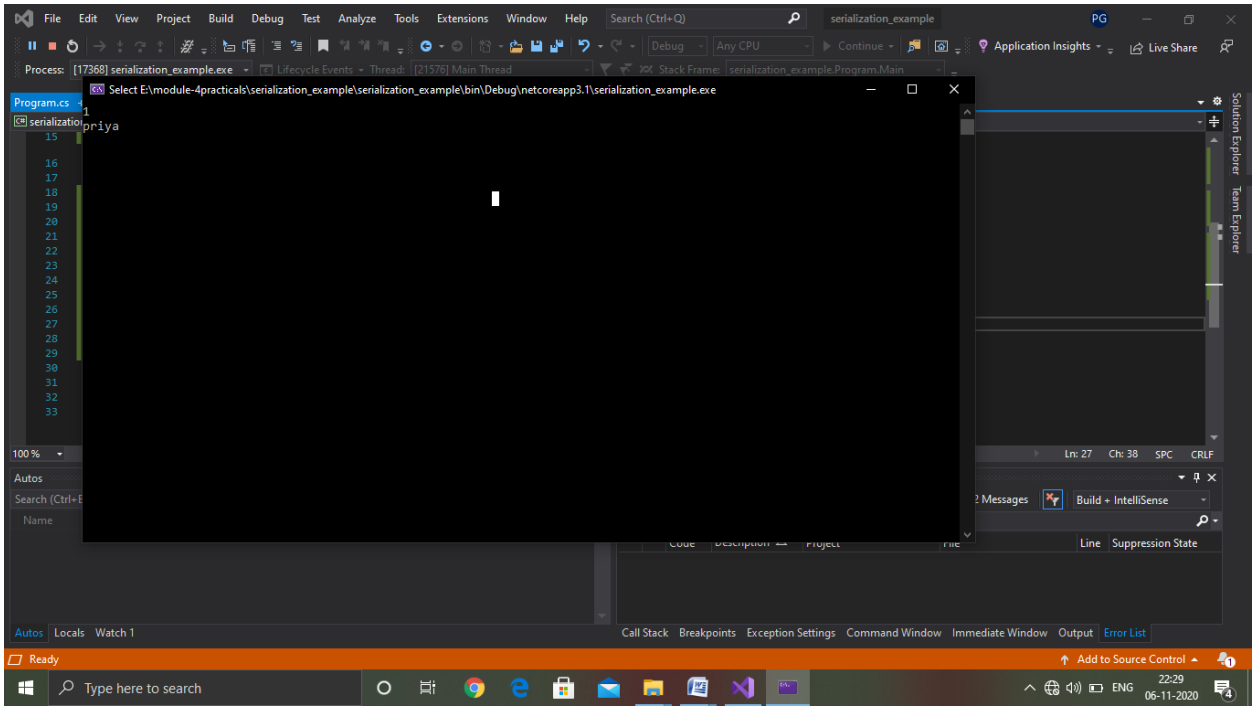
Output:



4. Example of serialization

```
using System;
using System.IO;
using System.Linq;
using System.Runtime.Serialization;
using System.Runtime.Serialization.Formatters.Binary;
using System.Text;
using System.Threading.Tasks;

namespace serialization_example
{
   [Serializable]
   class Program
   {
      public int id;
      public string name;
      static void Main(string[] args)
      {
         Program p1 = new Program();
         p1.id = 1;
         p1.name = "priya";
         IFormatter formatter = new BinaryFormatter();
         Stream stream = new FileStream(@"E:\ExampleNew.txt", FileMode.Create,
FileAccess.Write);
         formatter.Serialize(stream, p1);
         stream.Close();
         stream = new FileStream(@"E:\ExampleNew.txt", FileMode.Open, FileAccess.Read);
         Program p2 = (Program)formatter.Deserialize(stream);
         Console.WriteLine(p2.id);
         Console.WriteLine( p2.name);
         Console.ReadLine();
      }
   }
}
```

Output:



5.example of routing data and passing parameters .

Controller file

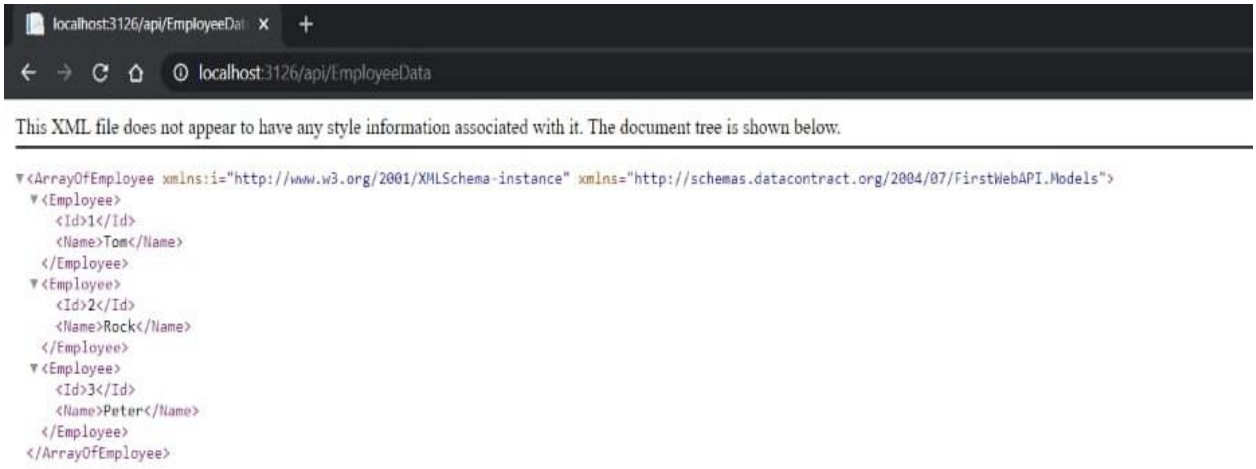
```
using FirstWebAPI.Models;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Net;
using System.Net.Http;
using System.Web.Http;
 namespace FirstWebAPI.Controllers
{
        public class EmployeeDataController : ApiController
        {
                static List<Employee> employees = new List<Employee>()
                {
                        new Employee() {Id = 1, Name= "Tom"},
                        new Employee() {Id = 2, Name= "Rock"},
                        new Employee() {Id = 3, Name= "Peter"}
```

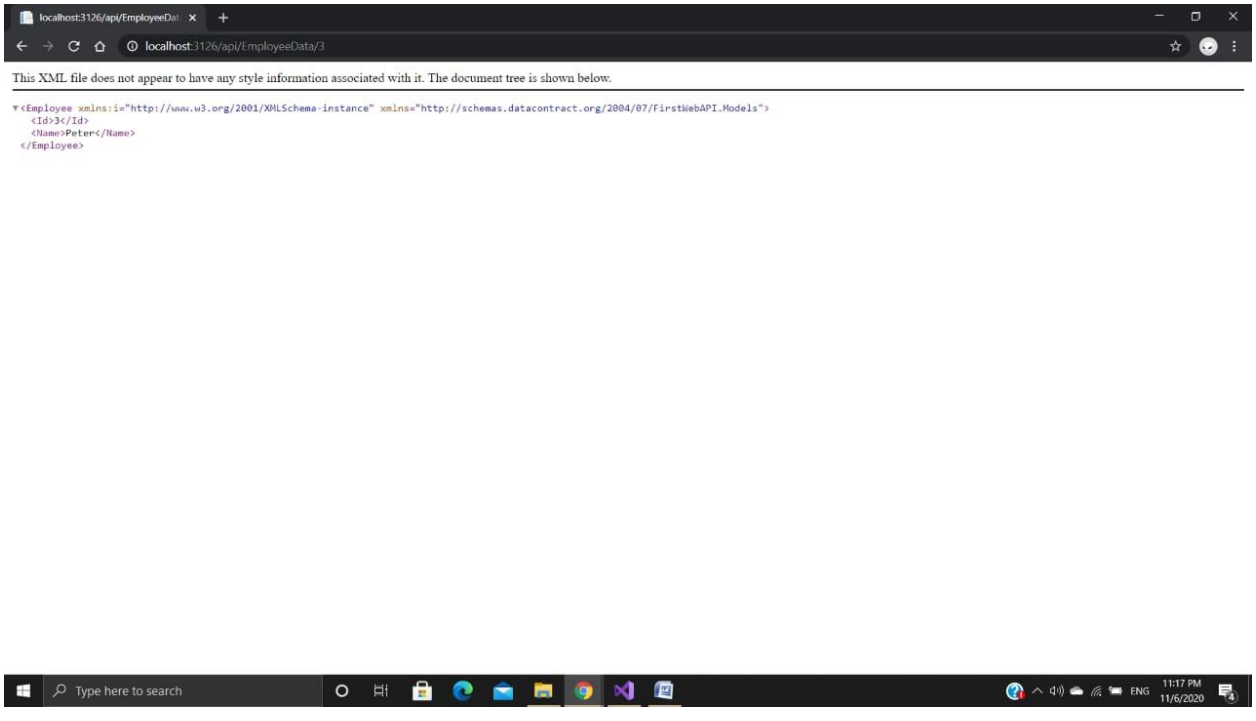
```
            };
            public IEnumerable<Employee> Get()
            {
                return employees;
            }
            public Employee Get(int id)
            {
                return employees.FirstOrDefault(s => s.Id == id);
            }


            [Route("api/employeeData/{id}/courses")]
            public IEnumerable<string> GetStudentCourses([FromUri]int id)
            {
                if (id == 1)
                    return new List<string>() { "C#", "Android", "ASP.net" };
                else if(id == 2)
                    return new List<string>() { "Web API", "Java", "HTML" };
                else
                    return new List<string>() { "CSS", "PHP", "JavaScript" };
            }
        }
    }
```

Model file:

```
    using System;
    using System.Collections.Generic;
    using System.Linq;
    using System.Web;
     namespace FirstWebAPI.Models
    {
        public class Employee
        {
            public int Id { get; set; }
            public string Name { get; set; }
        }
```

Output:


localhost:3126/api/EmployeeDat
localhost:3126/api/EmployeeData
This XML file does not appear to have any style information associated with it. The document tree is shown below.
<ArrayOfEmployee xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/FirstWebAPI.Models">
<Employee>
<Id>1</Id>
<Name>Tom</Name>
</Employee>
<Employee>
<Id>2</Id>
<Name>Rock</Name>
</Employee>
<Employee>
<Id>3</Id>
<Name>Peter</Name>
</Employee>
</ArrayOfEmployee>


localhost:3126/api/EmployeeDat
localhost:3126/api/EmployeeData/3
This XML file does not appear to have any style information associated with it. The document tree is shown below.
<Employee xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/FirstWebAPI.Models">
<Id>3</Id>
<Name>Peter</Name>
</Employee>
Type here to search
ENG
11:17 PM
11/6/2020

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


```
▼<ArrayOfEmployee xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/FirstWebAPI.Models">
  ▼<Employee>
     <Id>1</Id>
     <Name>Tom</Name>
   </Employee>
  ▼<Employee>
     <Id>2</Id>
     <Name>Rock</Name>
   </Employee>
  ▼<Employee>
     <Id>3</Id>
     <Name>Peter</Name>
   </Employee>
 </ArrayOfEmployee>
```