2.3 State Management



This section will guide you to:

* Implement State management techniques for different entities in the project.

This guide has nine subsections, namely:

2.3.1 Creating an ASP.NET MVC project

2.3.2 Creating a **TempDataSubmit.cshtml**

2.3.3 Creating a **ViewBagSubmit.cshtml**

2.3.4 Creating a **ViewDataSubmit.cshtml**

2.3.5 Changing **Index.cshtml** to show various state management methods.

2.3.6 Making changes to **HomeController** to work with the new Views

2.3.7 Building the Project.

2.3.8 Publishing and running the Project.

2.3.9 Pushing the code to your GitHub repositories.

**Step 2.3.1:** Creating an ASP.NET MVC project

* Open Visual Studio.
* From the top menu select **File->New->Project**
* **In Create A New Project** screen, select **ASP.NET Core Web Application** from the list of available Project types. Click on **Next**
* Enter **Project Name** as Phase3Section2.7 and Click on **Create**
* From the list of project sub-types choose **Web Application (Model-View-Controller)** and uncheck **Configure for HTTPS.** Click on **Create**
* This will create the files for an ASP.NET MVC Project

**Step 2.3.2:** Creating a **TempDataSubmit.cshtml**

* In the **Solution Explorer,** expand **Views->Home.** Right click **Home** and choose **Add->View**
* Enter **View Name** as TempDataSubmit.cshtml
* Click **Add**
* Enter the following script:

@{

Layout = null;

}

<!DOCTYPE html>

<**html**>

<**head**>

<**meta** name="viewport" content="width=device-width" />

<**title**>ViewDataSubmit</**title**>

</**head**>

<**body**>

<**div** class="row">

<**div** class="col-sm-6">

<**h4**>Results from TempData</**h4**>

@Html.Raw(TempData["name"] + "<**br**>" + TempData["address"] + "<**br**>" + TempData["class"] + "<**br**>" + TempData["year"])

</**div**>

</**div**>

</**body**>

</**html**>

**Step 2.3.3:** Creating a **ViewBagSubmit.cshtml**

* In the **Solution Explorer,** expand **Views->Home.** Right click **Home** and choose **Add->View**
* Enter **View Name** as ViewBagSubmit and click **Add**
* Enter the following script:

@{

Layout = null;

}

<!DOCTYPE html>

<**html**>

<**head**>

<**meta** name="viewport" content="width=device-width" />

<**title**>ViewBagSubmit</**title**>

</**head**>

<**body**>

<**div** class="row">

<**div** class="col-sm-6">

<**h4**>Results from ViewBag</**h4**>

@Html.Raw(ViewBag.name + "<**br**>" + ViewBag.address + "<**br**>" + ViewBag.sclass + "<**br**>" + ViewBag.year)

</**div**>

</**div**>

</**body**>

</**html**>

**Step 2.3.4:** Creating a **ViewDataSubmit.cshtml**

* In the **Solution Explorer,** expand **Views->Home.** Right click **Home** and choose **Add->View**
* Enter **View Name** as ViewDataSubmit and click **Add**
* Enter the following script:

@{

Layout = null;

}

<!DOCTYPE html>

<**html**>

<**head**>

<**meta** name="viewport" content="width=device-width" />

<**title**>ViewDataSubmit</**title**>

</**head**>

<**body**>

<**div** class="row">

<**div** class="col-sm-6">

<**h4**>Results from ViewData</**h4**>

@Html.Raw(ViewData["name"] + "<**br**>" + ViewData["address"] + "<**br**>" + ViewData["class"] + "<**br**>" + ViewData["year"])

</**div**>

</**div**>

</**body**>

</**html**>

**Step 2.3.5:** Changing **Index.cshtml** to show various state management methods.

* In the **Solution Explorer,** expand **Views->Home** and double click Index.cshtml
* Enter the following script:

@{

ViewData["Title"] = "Home Page";

}

<**div** class="container">

<**div** class="row">

<**div** class="col-sm-6 text-center">

<**h4**>Form Data capture using ViewData</**h4**>

</**div**>

<**div** class="col-sm-6 text-center">

<**h4**>Form Data capture using ViewBag</**h4**>

</**div**>

</**div**>

<**div** class="clearfix row">

<**div** class="col-sm-6">

<**form** action="/Home/ViewDataSubmit" method="post">

<**div** class="row">

<**div** class="col-sm-4">Student Name</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="name" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Address</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="address" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Class</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="class" maxlength="5" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Year Of Admission</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="year" type="number" maxlength="4" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-12 text-right">

<**button** class="btn btn-default">Submit</**button**>

</**div**>

</**div**>

</**form**>

</**div**>

<**div** class="col-sm-6">

<**form** action="/Home/ViewBagSubmit" method="post">

<**div** class="row">

<**div** class="col-sm-4">Student Name</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="name" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Address</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="address" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Class</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="sclass" maxlength="5" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Year Of Admission</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="year" type="number" maxlength="4" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-12 text-right">

<**button** class="btn btn-default">Submit</**button**>

</**div**>

</**div**>

</**form**>

</**div**>

</**div**> <!--row-->

<**div** class="clearfix row">

<**div** class="col-sm-6 text-center">

<**h4**>Form Data capture using TempData</**h4**>

</**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-6">

<**form** action="/Home/TempDataRedirect" method="post">

<**div** class="row">

<**div** class="col-sm-4">Student Name</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="name" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Address</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="address" maxlength="100" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Class</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="class" maxlength="5" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-4">Year Of Admission</**div**>

<**div** class="col-sm-8"><**input** class="form-control" name="year" type="number" maxlength="4" /></**div**>

</**div**>

<**div** class="row">

<**div** class="col-sm-12 text-right">

<**button** class="btn btn-default">Submit</**button**>

</**div**>

</**div**>

</**form**>

</**div**>

</**div**> <!--row--->

</**div**>

**Step 2.3.6:** Making changes to **HomeController** to work with the new Views

* In the **Solution Explorer,** expand **Controllers** and double click **HomeController**
* Enter the following code:

**using** System;

**using** System.Collections.Generic;

**using** System.Diagnostics;

**using** System.Linq;

**using** System.Threading.Tasks;

**using** Microsoft.AspNetCore.Mvc;

**using** Phase3Section2.\_7.Models;

**namespace** Phase3Section2.\_7.Controllers

{

**public** **class** HomeController : Controller

{

**public** IActionResult Index()

{

**return** View();

}

**public** IActionResult About()

{

ViewData["Message"] = "Your application description page.";

**return** View();

}

**public** IActionResult Contact()

{

ViewData["Message"] = "Your contact page.";

**return** View();

}

**public** IActionResult Privacy()

{

**return** View();

}

[ResponseCache(Duration = 0, Location = ResponseCacheLocation.None, NoStore = **true**)]

**public** IActionResult Error()

{

**return** View(**new** ErrorViewModel { RequestId = Activity.Current?.Id ?? HttpContext.TraceIdentifier });

}

[HttpPost]

**public** ViewResult ViewDataSubmit()

{

ViewData["name"] = Request.Form["name"];

ViewData["address"] = Request.Form["address"];

ViewData["class"] = Request.Form["class"];

ViewData["year"] = Request.Form["year"];

**return** View();

}

[HttpPost]

**public** ViewResult ViewBagSubmit()

{

ViewBag.name = Request.Form["name"];

ViewBag.address = Request.Form["address"];

ViewBag.sclass = Request.Form["sclass"];

ViewBag.year = Request.Form["year"];

**return** View();

}

[HttpPost]

**public** ActionResult TempDataRedirect()

{

TempData["name"] = Request.Form["name"].ToString();

TempData["address"] = Request.Form["address"].ToString();

TempData["class"] = Request.Form["class"].ToString();

TempData["year"] = Request.Form["year"].ToString();

**return** RedirectToAction("TempDataSubmit");

}

**public** ViewResult TempDataSubmit()

{

**var** model = TempData["name"];

**return** View();

}

}

}

**Step 2.3.7:** Building the Project

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

**Step 2.3.8:** Publishing and running the Project

* From the top menu select **Debug->Start Without Debugging**
* This will execute the program in the default browser

**Step 2.3.9:** 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