

Task-1: RSVP Application from Text Book**Code:****GuestResponse.cs:**

namespace PartyInvites.Models

{

public class GuestResponse

{

public string? Name { get; set; }

public string? Email { get; set; }

public string? Phone { get; set; }

public bool? WillAttend { get; set; }

}

}

Repository.cs:

using System.Collections.Generic;

using System.Linq;

namespace PartyInvites.Models

{

public static class Repository

{

private static readonly List<GuestResponse> responses = new();

```
public static IEnumerable<GuestResponse> Responses => responses;

public static void AddResponse(GuestResponse response)

{

    responses.Add(response);

}

}
```

HomeController.cs:

```
using Microsoft.AspNetCore.Mvc;

using PartyInvites.Models;

using System.Linq;

namespace PartyInvites.Controllers

{

    public class HomeController : Controller

    {

        public IActionResult Index() => View();

        [HttpGet]

        public ViewResult RsvpForm() => View();

        [HttpPost]

        public ViewResult RsvpForm(GuestResponse guestResponse)
```

```
        Repository.AddResponse(guestResponse);

        return View("Thanks", guestResponse);

    }

public ViewResult ListResponses()

{

    return View(Repository.Responses.Where(r => r.WillAttend == true));

}

}
```

Index.cshtml:

```
@{  
    Layout = null;  
}  
  
<!DOCTYPE html>  
  
<html>  
  
<head>  
    <meta name="viewport" content="width=device-width" />  
    <title>Party!</title>  
</head>  
  
<body>  
    <div>  
        <h3>We're having an amazing party!</h3>
```

```
<a asp-action="RsvpForm">RSVP Now</a>
</div>
</body>
</html>
```

RsvpForm.cshtml:

```
@model PartyInvites.Models.GuestResponse
@{
    Layout = null;
}

<!DOCTYPE html>

<html>
    <head>
        <meta name="viewport" content="width=device-width" />
        <title>RSVP Form</title>
    </head>
    <body>
        <form asp-action="RsvpForm" method="post">
            <p><label asp-for="Name">Your name:</label> <input asp-for="Name" /></p>
            <p><label asp-for="Email">Email:</label> <input asp-for="Email" /></p>
            <p><label asp-for="Phone">Phone:</label> <input asp-for="Phone" /></p>
            <p>
                <label asp-for="WillAttend">Will you attend?</label>
                <select asp-for="WillAttend">
                    <option value="true">Yes</option>
```

```
<option value="false">No</option>

</select>

</p>

<button type="submit">Submit RSVP</button>

</form>

</body>

</html>
```

Thanks.cshtml:

```
@model PartyInvites.Models.GuestResponse

@{

    Layout = null;
}

<!DOCTYPE html>

<html>

<head>

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

    <title>Thanks</title>

</head>

<body>

    <h1>Thank you, @Model.Name!</h1>

    @if (Model.WillAttend == true)

    {

        <p>It's great that you're coming! The drinks are in the fridge 🍹</p>
    }
}
```

```
else
{
    <p>Sorry you can't make it, but thanks for letting us know.</p>
}

<a asp-action="ListResponses">See who's coming</a>

</body>

</html>
```

ListResponses.cshtml:

```
@model IEnumerable<PartyInvites.Models.GuestResponse>

@{
    Layout = null;
}

<!DOCTYPE html>

<html>
    <head>
        <meta name="viewport" content="width=device-width" />
        <title>Responses</title>
    </head>
    <body>
        <h2>People attending the party:</h2>
        <table>
            <thead>
                <tr><th>Name</th><th>Email</th><th>Phone</th></tr>
            </thead>
```

```
<tbody>
@foreach (var r in Model)
{
    <tr>
        <td>@r.Name</td>
        <td>@r.Email</td>
        <td>@r.Phone</td>
    </tr>
}
</tbody>
</table>
</body>
</html>
```

Output:

Your name:

Email:

Phone:

Will you attend? Yes

Thank you, abc!

It's great that you're coming! The drinks are in the fridge 🍹

[See who's coming](#)

Name	Email	Phone
abc	abc@gmail.com	000000000000
abc	abc@gmail.com	000000000000

Task-2: To create an ASP.NET Core MVC application named CollegeInfoApp using Terminal and VS Code, configure ports 5000/5001, and develop the following functionalities:

Code:

HomeController.cs:

```
using CollegeInfoApp_094.Models;
using Microsoft.AspNetCore.Mvc;
using Microsoft.AspNetCore.Http;

namespace CollegeInfoApp_094.Controllers
{
    public class HomeController : Controller
    {
        // Existing Index method
        public IActionResult Index()
        {
            string greeting;
            string image;
            var hour = DateTime.Now.Hour;

            if (hour < 12) { greeting = "Good Morning ☀️"; image = "/images/sunrise.jpg"; }
            else if (hour < 18) { greeting = "Good Afternoon 🌅"; image = "/images/midday.jpg"; }
            else { greeting = "Good Evening 🌙"; image = "/images/sunset.jpg"; }

            ViewBag.Greeting = greeting;
            ViewBag.Image = image;
            ViewBag.CurrentTime = DateTime.Now.ToString("hh:mm tt");

            // Student from session/cookie
            var studentName = HttpContext.Session.GetString("StudentName") ??
Request.Cookies["StudentName"];
            ViewBag.StudentName = studentName;

            // College Info
            var college = new College
            {
                Name = "Uka Tarsadia University",
                Location = "Surat,Bardoli, India",
                CollegePrincipal = new Principal { Name = "Dr. Ramesh Kumar", Experience = 20
            },
            Teachers = new List<Teacher>
            {
                new Teacher { Name = "Mr. Sharma", Subject = "Math" },
                new Teacher { Name = "Ms. Verma", Subject = "Physics" },
                new Teacher { Name = "Mr. Gupta", Subject = "Chemistry" }
            },
        }
    }
}
```

```

        Courses = new List<string>
    {
        "Computer Science", "Mechanical", "Civil", "Electrical", "Electronics",
        "Chemical", "Information Technology", "Biotechnology", "Aerospace",
        "Automobile"
    }
};

ViewBag.College = college;

return View("MyView");
}

// GET: Show AddStudent form
public IActionResult AddStudent()
{
    return View();
}

// POST: Save student info
[HttpPost]
public IActionResult AddStudent(Student student)
{
    if (!string.IsNullOrEmpty(student.FirstName))
    {
        // Save student name in Session and Cookie
        HttpContext.Session.SetString("StudentName", student.FirstName);
        Response.Cookies.Append("StudentName", student.FirstName, new CookieOptions
        { Expires = DateTimeOffset.Now.AddDays(1) });

        // Redirect to Index to show student name
        return RedirectToAction("Index");
    }
    ViewBag.Error = "Please enter student name!";
    return View();
}
}
}

```

Extension/StudentExtension.cs:

```

using CollegeInfoApp_094.Models;

namespace CollegeInfoApp_094.Extensions
{
    public static class StudentExtensions
    {
        public static string GetFullName(this Student student)
        {
            return $"{student.FirstName} {student.LastName}";
        }
    }
}

```

Models/CollegeInfo.cs:

```
namespace CollegeInfoApp_094.Models
{
    public class College
    {
        public string? Name { get; set; }
        public string? Location { get; set; }
        public Principal? CollegePrincipal { get; set; }
        public List<Teacher>? Teachers { get; set; }
        public List<string>? Courses { get; set; }
    }
}
```

Model/ErrorViewModel.cs:

```
namespace CollegeInfoApp_094.Models;

public class ErrorViewModel
{
    public string RequestId { get; set; } = string.Empty;
    public bool ShowRequestId => !string.IsNullOrEmpty(RequestId);
}
```

Model/Principal.cs:

```
namespace CollegeInfoApp_094.Models;

public class Principal
{
    public string? Name { get; set; }
    public int Experience { get; set; }
}
```

Model/Student.cs:

```
namespace CollegeInfoApp_094.Models;

public class Student
{
    public int Id { get; set; }
    public string? FirstName { get; set; }
    public string? LastName { get; set; }
    public int Age { get; set; }
    public string? Department { get; set; }
}
```

Model/Teacher.cs:

```
namespace CollegeInfoApp_094.Models;

public class Teacher
{
    public int Id { get; set; }
    public string? Name { get; set; }
    public string? Subject { get; set; }
}
```

Services/NewsServices.cs:

```
using System.Net.Http;
using System.Threading.Tasks;

namespace CollegeInfoApp_094.Services
{
    public class NewsService
    {
        private readonly HttpClient _http;

        public NewsService(HttpClient http)
        {
            _http = http;
        }

        // Async download method for college news
        public async Task<string?> DownloadNewsAsync(string url)
        {
            // Basic validation
            if (string.IsNullOrWhiteSpace(url)) return null;

            // Ensure URL has scheme
            if (!url.StartsWith("http://") && !url.StartsWith("https://"))
            {
                url = "https://" + url;
            }

            using var resp = await _http.GetAsync(url);
            resp.EnsureSuccessStatusCode();

            var content = await resp.Content.ReadAsStringAsync();
            return content;
        }
    }
}
```

Index.cshtml:

```
@model CollegeInfoApp_094.Models.Student
@{
    ViewData["Title"] = "Home";
}

<div class="container mt-4">
    <div class="text-center">
        <h2 class="text-primary">@ViewBag.Greeting</h2>
        <h5>Current Time: <span class="text-success">@ViewBag.Time</span></h5>
        
    </div>

    <hr />

    <h3 class="text-info mt-4">Enter Student Details</h3>
    <form asp-action="AddStudent" method="post" class="border p-3 rounded bg-light">
        <div class="mb-3">
            <label class="form-label">First Name</label>
            <input asp-for="FirstName" class="form-control" required />
        </div>
        <div class="mb-3">
            <label class="form-label">Last Name</label>
            <input asp-for="LastName" class="form-control" required />
        </div>
        <div class="mb-3">
            <label class="form-label">Age</label>
            <input asp-for="Age" type="number" class="form-control" />
        </div>
        <div class="mb-3">
            <label class="form-label">Department</label>
            <input asp-for="Department" class="form-control" />
        </div>
        <input type="hidden" name="HiddenField" value="HiddenData123" />
        <button type="submit" class="btn btn-success">Save Student</button>
    </form>

    <hr />
    <div class="mt-3">
        <a class="btn btn-info" asp-action="CollegeNews">➡ View College News</a>
        <a class="btn btn-secondary" asp-action="MyView">🏡 College Info</a>
    </div>
</div>
```

Welcome.cshtml:

```
@{
    ViewData["Title"] = "Welcome Page";
}
<div class="container mt-5 text-center">
    <h1 class="text-success">
        🎉 Welcome, @ViewBag.StudentName!
    </h1>
    <p class="lead mt-3">We're happy to see you at CollegeInfoApp!</p>
    <a class="btn btn-info mt-3" asp-action="Index">⬅ Back to Home</a>
</div>
```

MyView.cshtml:

```
@{
    ViewData["Title"] = "College Information";
    var college = ViewBag.College as CollegeInfoApp_094.Models.College;
}

<div class="container mt-4">

    <!-- Greeting + Time + Image -->
    <div class="text-center">
        <h1 class="text-primary">@ViewBag.Greeting</h1>
        <h5 class="text-muted">Current Time: @ViewBag.CurrentTime</h5>
        
    </div>

    <hr />

    <!-- Student Info -->
    <div class="text-center mt-3">
        <h3 class="text-success">
            @if (ViewBag.StudentName != null)
            {
                <text>Welcome back, <strong>@ViewBag.StudentName</strong> 🙌 </text>
            }
            else
            {
                <text>No student added yet.</text>
            }
        </h3>
    </div>

    <!-- College Details -->
    <div class="mt-5">
        <h2 class="text-info text-center mb-4">@college?.Name</h2>
```

```

<p class="text-center"><strong>Location:</strong> @college?.Location</p>
<p class="text-center"><strong>Principal:</strong> @college?.CollegePrincipal?.Name
(Experience: @college?.CollegePrincipal?.Experience yrs)</p>

<h4 class="mt-4">Teachers:</h4>
<ul>
    @foreach(var t in college?.Teachers)
    {
        <li>@t.Name - @t.Subject</li>
    }
</ul>

<h4 class="mt-4">Engineering Courses Offered:</h4>
<table class="table table-striped table-bordered mt-2">
    <thead class="table-dark">
        <tr>
            <th>#</th>
            <th>Course Name</th>
        </tr>
    </thead>
    <tbody>
        @for(int i = 0; i < college.Courses.Count; i++)
        {
            <tr>
                <td>@(i+1)</td>
                <td>@college.Courses[i]</td>
            </tr>
        }
    </tbody>
</table>
</div>

<!-- Action Buttons -->
<div class="text-center mt-4">
    <a class="btn btn-primary m-2" asp-action="AddStudent">  Add Student</a>
    <a class="btn btn-warning m-2" asp-action="CollegeNews">  College News</a>
    <a class="btn btn-success m-2" asp-action="Welcome">  Go to Welcome Page</a>
</div>
</div>

```

Program.cs:

```

var builder = WebApplication.CreateBuilder(args);

builder.Services.AddControllersWithViews();
builder.Services.AddSession();

```

```
var app = builder.Build();

app.UseStaticFiles();
app.UseRouting();
app.UseSession();

app.MapControllerRoute(
    name: "default",
    pattern: "{controller=Home}/{action=Index}/{id?}");

app.Run();
```

GlobalUsings.cs:

```
global using System;
global using System.Collections.Generic;
global using System.Linq;
global using System.Threading.Tasks;
global using Microsoft.AspNetCore.Mvc;
global using Microsoft.AspNetCore.Http;
global using CollegeInfoApp_094.Models;
global using CollegeInfoApp_094.Extensions;
```

OUTPUT:

CollegeInfoApp

Good Evening 🌄

Current Time: 09:18 PM



Welcome back, Ayush 🙏

Uka Tarsadia University

Location: Surat,Bardoli, India

Principal: Dr. Ramesh Kumar (Experience: 20 yrs)

Engineering Courses Offered:

#	Course Name
1	Computer Science
2	Mechanical
3	Civil
4	Electrical
5	Electronics
6	Chemical
7	Information Technology
8	Biotechnology
9	Aerospace
10	Automobile

[+ Add Student](#) [College News](#) [Go to Welcome Page](#)

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CollegeInfoApp

Home News

Welcome, Ayush More!

Session Student: Ayush More

Cookie Student: Sneha Patel

Query String Student:

This demonstrates **Cookies, Sessions, Query Strings, and Hidden Fields**.

[Back to Home](#)

Enter Student Details

First Name
Ayush

Last Name
More

Age
20

Department
Computer Science

[Save Student](#)

[View College News](#) [College Info](#)

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CollegeInfoApp

College News

Current Time: 09:11 PM

Admissions open for 2025 batch!

Annual TechFest scheduled for November 2025.

College ranked #3 in state-level university rankings.

New AI Lab inaugurated by the Principal.

Inter-college football tournament registration open.

[Back to Home](#)

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