PG-DAC MARCH 23 (TVM MODULE END LAB EXAM)

MS.NET

Q1. Write a program in C# to insert two books' information.

Test Data :

Insert the information of two books :

Information of book 1 :

Input name of the book : BASIC

Input the author : Kumar Mehra

Information of book 2 :

Input name of the book : C+

Input the author : Sainath Sharma

Expected Output:

1: Title = BASIC, Author = Kumar Mehra

2: Title = C+, Author = Sainath Sharma

CODE :

PROGRAM.CS FILE :

```
using System;
namespace Book
{
    7 references
    public class Book
    {
        3 references
        public string Title { get; set; }
        3 references
        public string Author { get; set; }
    }

    0 references
    public class Program
    {
        0 references
        public static void Main(string[] args)
        {
            // Create an array to hold the books
            Book[] books = new Book[2];
```

```
            // Insert information for the first book
            Console.WriteLine("Information of book 1:");
            Console.Write("Input name of the book: ");
            string title1 = Console.ReadLine();
            Console.Write("Input the author: ");
            string author1 = Console.ReadLine();

            // Create a book object and assign the provided information
            Book book1 = new Book();
            book1.Title = title1;
            book1.Author = author1;

            // Insert the first book into the array
            books[0] = book1;
```

```
// Insert information for the second book
Console.WriteLine("\nInformation of book 2:");
Console.Write("Input name of the book: ");
string title2 = Console.ReadLine();
Console.Write("Input the author: ");
string author2 = Console.ReadLine();

// Create a book object and assign the provided information
Book book2 = new Book();
book2.Title = title2;
book2.Author = author2;

// Insert the second book into the array
books[1] = book2;
```

```
        // Display the information of the inserted books
        Console.WriteLine("\nExpected Output:");
        for (int i = 0; i < books.Length; i++)
        {
            Book currentBook = books[i];
            Console.WriteLine($"{i + 1}: Title = {currentBook.Title}, Author = {currentBook.Author}");
        }

        Console.ReadLine();
    }
}
}
```

OUTPUT :

```
G:\CDAC MODULES\Dot Net\ModuleEndExam\Book\bin\Debug\net7.0\Book.
Information of book 1:
Input name of the book: BASIC
Input the author: Kumar Mehra

Information of book 2:
Input name of the book: C+
Input the author: Sainath Sharma

Expected Output:
1: Title = BASIC, Author = Kumar Mehra
2: Title = C+, Author = Sainath Sharma
```

Q2. Create a MVC program for calculating the speed in km/h when the speed is given in m/s. Display the output using ViewBag.

CODE :

HOME CONTROLLER.CS FILE :

HomeController.cs | SpeedCalculator: Overview

SpeedCalculator.Controllers.H

```
using Microsoft.AspNetCore.Mvc;

namespace SpeedCalculator.Controllers
{
    0 references
    public class HomeController : Controller
    {
        0 references
        public IActionResult Index()
        {
            return View();
        }
```

```
        [HttpPost]
        0 references
        public IActionResult CalculateSpeed(double speed)
        {
            // Convert speed from m/s to km/h
            double speedInKmPerHour = speed * 3.6;

            // Pass the calculated speed to the view using ViewBag
            ViewBag.SpeedInKmPerHour = speedInKmPerHour;

            return View("Index");
        }
    }
}
```

INDEX.CSHTML FILE :

```
html  HomeController.cs  SpeedCalculator: Overview
1   @{
2       ViewData["Title"] = "Speed Calculator";
3   }
4
5   <h1>Speed Calculator</h1>
6
7   <form method="post" asp-action="CalculateSpeed">
8       <label for="speed">Enter speed in m/s:</label>
9       <input type="number" step="0.01" name="speed" required />
10
11      <button type="submit">Calculate</button>
12  </form>
```

```
@if (ViewBag.SpeedInKmPerHour != null)
{
    <h2>Result:</h2>
    <p>The speed in km/h is: @ViewBag.SpeedInKmPerHour</p>
}
```

OUTPUT :