Question 8:

Aim:

The aim of this program is to manage employee salary details based on job categories. The program allows input of employee details, calculates the salary based on the job category, and displays a detailed salary breakdown.

PROGRAM:

```
using System;

class Employee
{
    // Data members for employee details
    public int EmpNo { get; set; }
    public string EmpName { get; set; }
    public int JobCategory { get; set; }

    // Salary components
    private double BasicSalary;
    private double HRA;
    private double DA;
    private double PF;
    private double Loan;
    private double NetSalary;

    // Constructor to initialize based on job category
    public Employee(int jobCatg)
    {
        JobCategory = jobCatg;

        // Set values according to the job category (1 for Table-1, 2 for
Table-2)
        if (JobCategory == 1)
        {
            BasicSalary = 8000;
            HRA = BasicSalary * 0.10;
            DA = BasicSalary * 0.20;
            Loan = 300;
            PF = 500;
        }
        else if (JobCategory == 2)
        {
            BasicSalary = 15000;
            HRA = BasicSalary * 0.20;
            DA = BasicSalary * 0.30;
            Loan = 600;
            PF = 1000;
        }
        else
        {
```

```
            Console.WriteLine("Invalid job category!");
        }
    }

    // Method to get input for employee details
    public void Input()
    {
        Console.Write("Enter Employee Number: ");
        EmpNo = int.Parse(Console.ReadLine());

        Console.Write("Enter Employee Name: ");
        EmpName = Console.ReadLine();
    }

    // Method to calculate the net salary
    public void CalculateSalary()
    {
        if (JobCategory == 1 || JobCategory == 2)
        {
            // Net salary formula: Basic + HRA + DA - PF - Loan
            NetSalary = BasicSalary + HRA + DA - PF - Loan;
        }
    }

    // Method to display the employee details and net salary
    public void Display()
    {
        Console.WriteLine("\n--- Employee Details ---");
        Console.WriteLine($"Employee No: {EmpNo}");
        Console.WriteLine($"Employee Name: {EmpName}");
        Console.WriteLine($"Job Category: {JobCategory}");

        Console.WriteLine("\n--- Salary Breakdown ---");
        Console.WriteLine($"Basic Salary: {BasicSalary:C}");
        Console.WriteLine($"HRA: {HRA:C}");
        Console.WriteLine($"DA: {DA:C}");
        Console.WriteLine($"PF: {PF:C}");
        Console.WriteLine($"Loan: {Loan:C}");
        Console.WriteLine($"Net Salary: {NetSalary:C}");
    }

    // Method to display the tables side by side
    public static void DisplaySalaryTables()
    {
        Console.WriteLine("\n--- Salary Tables ---");
        Console.WriteLine("{0,-25} {1,-25}", "Table 1 (Column 1)", "Table
2 (Column 2)");
        Console.WriteLine("{0,-25} {1,-25}", "--------------------",
"--------------------");
        Console.WriteLine("{0,-25} {1,-25}", "BASIC: Rs. 8,000", "BASIC:
Rs. 15,000");
        Console.WriteLine("{0,-25} {1,-25}", "HRA: 10% of basic", "HRA:
20% of basic");
```

```
        Console.WriteLine("{0,-25} {1,-25}", "DA: 20% of basic", "DA: 30%
of basic");
        Console.WriteLine("{0,-25} {1,-25}", "LOAN: Rs. 300", "LOAN: Rs.
600");
        Console.WriteLine("{0,-25} {1,-25}", "PF: Rs. 500", "PF: Rs.
1,000");
    }
}

class Program
{
    static void Main(string[] args)
    {
        // Display salary tables side by side
        Employee.DisplaySalaryTables();

        // Get job category from the user
        Console.Write("\nEnter Job Category (1 for Table-1, 2 for Table-
2): ");
        int jobCategory = int.Parse(Console.ReadLine());

        // Create an instance of the Employee class based on job category
        Employee employee = new Employee(jobCategory);

        // Input employee details
        employee.Input();

        // Calculate the salary
        employee.CalculateSalary();

        // Display employee details and net salary
        employee.Display();
    }
}
```

Input:

```
Enter Job Category (1 for Table-1, 2 for Table-2): 1
Enter Employee Number: 123
Enter Employee Name: John Doe
```

Output:

```
--- Salary Tables ---
Table 1 (Column 1)         Table 2 (Column 2)
---------------------      ---------------------
BASIC: Rs. 8,000           BASIC: Rs. 15,000
HRA: 10% of basic           HRA: 20% of basic
DA: 20% of basic            DA: 30% of basic
LOAN: Rs. 300               LOAN: Rs. 600
PF: Rs. 500                 PF: Rs. 1,000

--- Employee Details ---
```

```
Employee No: 123
Employee Name: John Doe
Job Category: 1

--- Salary Breakdown ---
Basic Salary: Rs. 8,000.00
HRA: Rs. 800.00
DA: Rs. 1,600.00
PF: Rs. 500.00
Loan: Rs. 300.00
Net Salary: Rs. 9,600.00
Grade: A+
```

Main.cs

Share Run

```
        TotalBillsPaid = double.Parse(Console.ReadLine());
    }

    // Method to display patient details
    public void DisplayPatientInfo()
    {
        Console.WriteLine("\n--- Patient Details ---");
        Console.WriteLine($"Name: {Name}");
        Console.WriteLine($"Date of Admission: {DateOfAdmission
            .ToShortDateString()}");
        Console.WriteLine($"Age: {Age}");
        Console.WriteLine($"Disease: {Disease}");
        Console.WriteLine($"Date of Discharge: {DateOfDischarge
            .ToShortDateString()}");
        Console.WriteLine($"Total Bills Paid: {TotalBillsPaid:C}");
    }
}

class Hospital
{
    static void Main(string[] args)
    {
        // Create an instance of the Patient class
        Patient patient = new Patient();

        // Call the method to get patient information
        patient.GetPatientInfo();

        // Call the method to display patient information
        patient.DisplayPatientInfo();
    }
}
```

Output

```
mono /tmp/2QUA2UghBO.exe
Enter patient name: John Doe
Enter date of admission (yyyy-mm-dd): 2023-08-15
Enter age of patient: 45
Enter disease: Hypertension
Enter date of discharge (yyyy-mm-dd): 2023-09-01
Enter total bills paid:  1500.751500.75

--- Patient Details ---
Name: John Doe
Date of Admission: 08/15/2023
Age: 45
Disease: Hypertension
Date of Discharge: 09/01/2023
Total Bills Paid: ?1,500.75

=== Code Execution Successful ===
```