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**Assignment : C Sharp 2nd Assignment**

# Object Oriented Programming

## Objective

* To write a simple class.
* Use exception handling mechanism to handle runtime errors.

## Assignments to be done in this session

1. Develop Employee Management System for Litware Organization. Write a Class Library project LitwareLib.
   1. Add class Employee with following private members:
      * EmpNo int
      * EmpName string
      * Salary double
      * HRA double
      * TA double
      * DA double
      * PF double
      * TDS double
      * NetSalary double
      * GrossSalary double.

Write methods for accepting EmpNo, EmpName and Salary. HRA, TA, DA, PPF, TDS, NET, GROSS should be calculated automatically. Follow the table for calculations.

|  |  |  |  |
| --- | --- | --- | --- |
| Salary | HRA % of Salary | TA % of Salary | DA % of Salary |
| <5000 | 10 | 5 | 15 |
| <10000 | 15 | 10 | 20 |
| <15000 | 20 | 15 | 25 |
| <20000 | 25 | 20 | 30 |
| >=20000 | 30 | 25 | 35 |

## GrossSalary = Salary + HRA + TA + DA.

Calculate PF, TDS and Net salary in a function named “CalculateSalary()”

## PF = 10 % of GrossSalary. TDS = 18 % of GrossSalary.

NetSalary = GrossSalary – (PF + TDS).

e) Write a console application Employee Management which allow HR staff member to register newly joined employee with EmpNo, EmpName and Salary. Display gross salary of employee on console. LitwareLib class Library will be used in Test console application for creating objects and invoking functionality of Employee class. Use Exception Handling mechanism wherever necessary.

Code :

using System;

namespace AssignmentEmployee

{

     class Employee

    {

        public int EmpNo { get; set; }

        public string EmpName { get; set; }

        public double Salary { get; set; }

        public double HRA { get; set; }

        public double TA { get; set; }

        public double DA { get; set; }

        public double PF { get; set; }

        public double TDS { get; set; }

        public double NetSalary { get; set; }

        public double GrossSalary { get; set; }

        public Employee(int EmpNo, string EmpName, double Sal)

        {

            Console.WriteLine("Enter the EmpName");

            EmpName = Console.ReadLine();

Console.WriteLine("Enter the EmpNo");

            EmpNo = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter the salary");

            Salary = Convert.ToDouble(Console.ReadLine());

            if (Salary < 5000)

            {

                HRA = (Salary \* 10) / 100;

                TA = (Salary \* 5) / 100;

                DA = (Salary \* 15) / 100;

                GrossSalary = Salary + HRA + TA + DA;

            }

            else if (Salary < 10000)

            {

                HRA = (Salary \* 15) / 100;

                TA = (Salary \* 10) / 100;

                DA = (Salary \* 20) / 100;

                GrossSalary = Salary + HRA + TA + DA;

            }

            else if (Salary < 15000)

            {

                HRA = (Salary \* 20) / 100;

                TA = (Salary \* 15) / 100;

                DA = (Salary \* 25) / 100;

                GrossSalary = Salary + HRA + TA + DA;

            }

            else if (Salary < 20000)

            {

                HRA = (Salary \* 25) / 100;

                TA = (Salary \* 20) / 100;

                DA = (Salary \* 30) / 100;

                GrossSalary = Salary + HRA + TA + DA;

            }

            else

            {

                HRA = (Salary \* 30) / 100;

                TA = (Salary \* 25) / 100;

                DA = (Salary \* 35) / 100;

                GrossSalary = Salary + HRA + TA + DA;

            }

        }

        public void calculateSalary()

        {

            PF = GrossSalary \* 10 / 100;

            TDS = GrossSalary \* 18 / 100;

            NetSalary = GrossSalary - (PF + TDS);

        }

        public double GrossSal

        {

            get { return GrossSalary; }

        }

        static void Main(string[] args)

        {

            Employee Emp = new Employee(1234, "Shahzadi", 25000);

            Emp.calculateSalary();

            Console.WriteLine(Emp.GrossSalary);

            Console.WriteLine(Emp.NetSalary);

            Console.ReadKey();

        }

    }

}

**Output**

