ASSignment2

# 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)

Program

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

public class Employee

{

int EmpNo;

string EmpName;

double Salary;

double HRA;

double TA;

double DA;

double PF;

double TDS;

double NetSalary;

double GrossSalary;

//This is a method for taking employee details

public void set\_EmpNo\_Name\_Salary()

{

//Here WE are taking input of emp no,emp name and for salary

Console.WriteLine("Enter Emp No, Emp Name,Salary of an an employee");

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

EmpName = Console.ReadLine();

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

Console.WriteLine("Emp No = {0}\nEmpName = {1}\nSalary = {2} ", EmpNo, EmpName, Salary);

}

public double GroSal()

{

GrossSalary=0;

if (Salary < 5000)

{

HRA = 10 \* Salary / 100;

TA = 5 \* Salary / 100;

DA = 15 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

else if (Salary < 10000)

{

HRA = 15 \* Salary / 100;

TA = 10 \* Salary / 100;

DA = 20 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

else if (Salary < 150000)

{

HRA = 20 \* Salary / 100;

TA = 15 \* Salary / 100;

DA = 25 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

else if (Salary < 200000)

{

HRA = 25 \* Salary / 100;

TA = 20 \* Salary / 100;

DA = 30 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

else if (Salary >= 20000)

{

HRA = 10 \* Salary / 100;

TA = 5 \* Salary / 100;

DA = 15 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

return GrossSalary;

}

public void CalCulateSalary()

{

Console.WriteLine("HERE PF , TDS AND NET SALARY OF AN EMPLOYEE");

Double GrosSal = GroSal();

PF = 10 \* GrosSal / 100;

TDS= 18 \* GrosSal / 100;

NetSalary = GrosSal - (PF + TDS);

Console.WriteLine(" PF = {0} \nTDS = {1}\nNetSalary = {2}", PF, TDS, NetSalary);

}

static void Main()

{

Employee emp = new Employee();

emp.set\_EmpNo\_Name\_Salary();

Double Gs = emp.GroSal();

Console.WriteLine(" Gross SALARY {0} ", Gs);

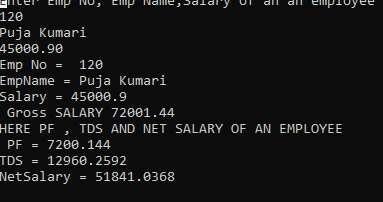
emp.CalCulateSalary();

Console.ReadLine();

}

}

Output



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.

Program

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Xml.Schema;

using static System.Console;

using static System.Convert;

namespace Employee\_Management

{

internal class Program

{

class Employee

{

public int[] empno = new int[50];

public string[] emp\_name = new string[50];

public float[] emp\_salary = new float[50];

int count = 0;

public void Register\_employee\_Details()

{

int n;

WriteLine("HR please enter number of employee which you want to register");

n = int.Parse(Console.ReadLine());

WriteLine("Register records of {0} employee with emp\_no,emp\_name and salary",n);

for (int i = 0; i < n; i++)

{

WriteLine("{0}St Employee Details:", (i+1));

empno[i] = int.Parse(ReadLine());

emp\_name[i] = ReadLine();

emp\_salary[i] = float.Parse(ReadLine());

count++;

}

}

public void Dispaly\_Gross\_Salary()

{

for(int i=0;i<count;i++)

{

float gross\_salary = 0;

if (emp\_salary[i]<5000)

{

float HRA = 10 \* emp\_salary[i] / 100;

float TA = 5 \* emp\_salary[i] / 100;

float DA = 15 \* emp\_salary[i] / 100;

gross\_salary = emp\_salary[i] + HRA + TA + DA;

}

else if (emp\_salary[i] < 10000)

{

float HRA = 15 \* emp\_salary[i] / 100;

float TA = 10 \* emp\_salary[i] / 100;

float DA = 20 \* emp\_salary[i] / 100;

gross\_salary = emp\_salary[i] + HRA + TA + DA;

}

else if (emp\_salary[i] < 15000)

{

float HRA = 20 \* emp\_salary[i] / 100;

float TA = 15 \* emp\_salary[i] / 100;

float DA = 25 \* emp\_salary[i] / 100;

gross\_salary = emp\_salary[i] + HRA + TA + DA;

}

else if (emp\_salary[i] < 20000)

{

float HRA = 25 \* emp\_salary[i] / 100;

float TA = 20 \* emp\_salary[i] / 100;

float DA = 30 \* emp\_salary[i] / 100;

gross\_salary = emp\_salary[i] + HRA + TA + DA;

}

else if (emp\_salary[i] > 20000)

{

float HRA = 25 \* emp\_salary[i] / 100;

float TA = 20 \* emp\_salary[i] / 100;

float DA = 30 \* emp\_salary[i] / 100;

gross\_salary = emp\_salary[i] + HRA + TA + DA;

}

WriteLine("{0}st employee deatils\n Emp\_no : {1}\n emp\_name : " +

"{2}\n emp\_salary :{3}\n GrossSalary : {4}", i,

empno[i], emp\_name[i], emp\_salary[i],gross\_salary);

ReadLine();

}

}

}

static void Main(string[] args)

{

Employee emp =new Employee();

emp.Register\_employee\_Details();

emp.Dispaly\_Gross\_Salary();

}

}

}

OUTPUT

