ASSignment2

# Object Oriented Programming

## Objective

* To write a simpleclass.
* Use exception handling mechanism to handle runtimeerrors.

## Assignments to be done in this session

1. Develop Employee Management System for Litware Organization. Write a Class Library projectLitwareLib.
   1. Add class Employeewith following private members:
      * EmpNo int
      * EmpNamestring
      * Salarydouble
      * HRA double
      * TA double
      * DA double
      * PF double
      * TDS double
      * NetSalarydouble
      * GrossSalarydouble.

Write methods for accepting EmpNo, EmpNameand Salary. HRA, TA, DA, PPF, TDS, NET, GROSSshould 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;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

publicclassEmployee

{

intEmpNo;

stringEmpName;

double Salary;

double HRA;

double TA;

double DA;

double PF;

double TDS;

doubleNetSalary;

doubleGrossSalary;

//This is a method for taking employee details

publicvoidset\_EmpNo\_Name\_Salary()

{

//Here WE are taking input of empno,emp name and for salary

Console.WriteLine("Enter Emp No, EmpName,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);

}

publicdoubleGroSal()

{

GrossSalary=0;

if (Salary < 5000)

{

HRA = 10 \* Salary / 100;

TA = 5 \* Salary / 100;

DA = 15 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

elseif (Salary < 10000)

{

HRA = 15 \* Salary / 100;

TA = 10 \* Salary / 100;

DA = 20 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

elseif (Salary < 150000)

{

HRA = 20 \* Salary / 100;

TA = 15 \* Salary / 100;

DA = 25 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

elseif (Salary < 200000)

{

HRA = 25 \* Salary / 100;

TA = 20 \* Salary / 100;

DA = 30 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

elseif (Salary >= 20000)

{

HRA = 10 \* Salary / 100;

TA = 5 \* Salary / 100;

DA = 15 \* Salary / 100;

GrossSalary = Salary + HRA + TA + DA;

}

returnGrossSalary;

}

publicvoidCalCulateSalary()

{

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);

}

staticvoid Main()

{

Employee emp = newEmployee();

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

Double Gs = emp.GroSal();

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

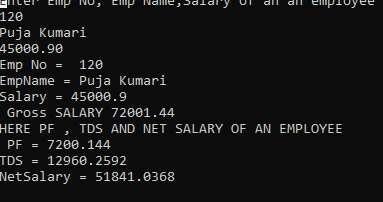
emp.CalCulateSalary();

Console.ReadLine();

}

}

Output



e) Write a console application Employee Management which allow HR staff member to register newly joined employee with EmpNo, EmpNameand Salary. Display gross salary of employee on console. LitwareLibclass 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;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Xml.Schema;

usingstaticSystem.Console;

usingstaticSystem.Convert;

namespaceEmployee\_Management

{

internalclassProgram

{

classEmployee

{

publicint[] empno = newint[50];

publicstring[] emp\_name = newstring[50];

publicfloat[] emp\_salary = newfloat[50];

int count = 0;

publicvoidRegister\_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++;

}

}

publicvoidDispaly\_Gross\_Salary()

{

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

{

floatgross\_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;

}

elseif (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;

}

elseif (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;

}

elseif (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;

}

elseif (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();

}

}

}

staticvoid Main(string[] args)

{

Employee emp =newEmployee();

emp.Register\_employee\_Details();

emp.Dispaly\_Gross\_Salary();

}

}

}

OUTPUT

