**Assignment\_6**

**package** amdocs;

**class** Employee{

String employeeID,employeeName,department;

Employee(String employeeID,String employeeName,String department){

**this**.employeeID = employeeID;

**this**.employeeName = employeeName;

**this**.department = department;

}

**public** **double** calculateTax(){

**double** tax = 0.0;

//compute tax

**return** tax;

}

**public** String toString(){

**return** String.*format*("%-10s %-20s %-15s",**this**.employeeID,**this**.employeeName,**this**.department);

}

}

**class** PermanentEmployee **extends** Employee **implements** Comparable<Employee>{

**private** **double** MonthlySalary;

**private** **double** pf = ((15/100) \* MonthlySalary);

**private** **double** tax;

PermanentEmployee(String employeeID, String employeeName, String department,**double** MonthlySalary) {

**super**(employeeID, employeeName, department);

**this**.MonthlySalary = MonthlySalary;

}

//Overriding calculateTax method

**public** **double** calculateTax(){

//Annual Salary 10%

tax = (((MonthlySalary + pf) \*12)\*10)/100;

**return** tax;

}

**public** String toString(){

**return** String.*format*("%-15s %-15s",**this**.MonthlySalary,calculateTax());

}

@Override

**public** **int** compareTo(Employee o) {

String str1 = **this**.employeeID.substring(1);

Employee temp = (Employee)o;

String str2 = temp.employeeName.substring(1);

Integer i1 = Integer.*parseInt*(str1);

Integer i2 = Integer.*parseInt*(str2);

**if**(i1 < i2)

**return** 1;

**else** **if**(i1 > i2)

**return** -1;

**else** **return** 0;

}

}

**class** ContractEmployee **extends** Employee **implements** Comparable<Employee>{

**private** **int** contractPeriod;

**private** **double** contractAmount;

**private** **double** tax;

ContractEmployee(String employeeID, String employeeName, String department,**int** contractPeriod,**int**

contractAmount) {

**super**(employeeID, employeeName, department);

**this**.contractPeriod = contractPeriod;

**this**.contractAmount = contractAmount;

}

//Overriding calculateTax method

**public** **double** calculateTax(){

//Contract period 10%

tax = (((contractAmount) \* contractPeriod)\*10)/100;

**return** tax;

}

@Override

**public** **int** compareTo(Employee o) {

String str1 = **this**.employeeID.substring(1);

Employee temp = (Employee)o;

String str2 = temp.employeeName.substring(1);

Integer i1 = Integer.*parseInt*(str1);

Integer i2 = Integer.*parseInt*(str2);

**if**(i1 < i2)

**return** 1;

**else** **if**(i1 > i2)

**return** -1;

**else** **return** 0;

}

**public** String toString(){

**return** String.*format*("%-15s %-15s",**this**.contractAmount,**this**.calculateTax());

}

}

**class** Assign\_6{

**public** **static** **void** main(String[] args) {

Employee emp = **new** Employee("E101", "Ajay", "Developer");

//Employee emp1 = new Employee("P101","RAHUL amdocs","Developer");

String typeofemployee = "";

**if**(emp.employeeID.charAt(0) == 'E')

typeofemployee = "Permanent Employee";

**else** typeofemployee= "Contractual Employee";

System.***out***.println("Type of Employee : "+typeofemployee);

System.***out***.println(emp);

}

}