**Week-2 Lab**

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\* Program for Calculating employee weekpay.

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**package** Lab2;

**public** **class** Employee {

// Declaring variables

**private** String department;

**double** payRate;

**private** String name;

**private** **double** weekpay;

**public** Employee(String name, String department, **double** payRate) {

**this**.name = name;

**this**.department = department;

**this**.payRate = payRate;

}

// Accessor method(getters)

**public** String getEmp() {

**return** "Employee: " + name + " works in the " + department + " department" ;

}

// Mutator method(setters) to set employee's department.

**public** **void** setDepartment(String department) {

**this**.department = department;

}

**public** **void** setPayRate(**double** payRate) {

**this**.payRate = payRate;

}

**public** **double** getPayRate() {

**return** payRate;

}

**public** String getdepartment() {

**return** department;

}

**public** String getname() {

**return** name;

}

// calculating weeklpay

**public** **double** weeklypay(**int** noOfHours) {

**if** (noOfHours < 40) {

weekpay = noOfHours \* payRate;

} **else** **if** (noOfHours >= 40) {

weekpay = 40 \* payRate;

}

**return** weekpay;

}

}

**package** Lab2;

**public** **class** UnionEmployee **extends** Employee {

**private** **double** dues;

**public** UnionEmployee(String name, String department, **double** payRate, **double** dues) {

**super**(name, department, payRate);

**this**.dues = dues;

}

// mutator method to set employee's dues

**public** **void** setdues(**double** dues) {

**this**.dues = dues;

}

**public** **double** getdues() {

**return** dues;

}

//weeklypay for union employee

@Override

**public** **double** weeklypay(**int** noOfHours) {

**double** weekpay1 = 0;

**double** extraHours = noOfHours - 40;

dues = getdues();

**if** (noOfHours <= 40) {

**double** weeklyPayUnion = (**super**.weeklypay(noOfHours));

weekpay1 = weeklyPayUnion - dues;

}

**if** (noOfHours > 40) {

**double** weeklyPayUnion = (**super**.weeklypay(40) + (extraHours \* 1.5 \* payRate));

weekpay1 = weeklyPayUnion - dues;

}

**return** weekpay1;

}

}

**package** Lab2;

**public** **class** CommissionEmployee **extends** Employee {

**double** commissionRate;

**double** salesAmount;

**public** CommissionEmployee(String name, String department, **double** payRate, **double** commissionRate,**double** salesAmount) {

**super**(name, department, payRate);

**this**.commissionRate = commissionRate;

**this**.salesAmount = salesAmount;

}

**public** **void** setcommissionRate(**double** commissionRate) {

**this**.commissionRate = commissionRate;

}

**public** **void** setsalesAmount(**double** salesAmount) {

**this**.salesAmount = salesAmount;

}

// calculating weeklypay for commission employee

@Override

**public** **double** weeklypay(**int** noOfHours) {

**double** weeklyPay = **super**.weeklypay(noOfHours);

**double** commionRate = getcommissionRate();

**double** salesAmt = getsalesAmount();

**double** newWeeklyPay = weeklyPay + (commionRate \* salesAmt);

**return** newWeeklyPay;

}

**public** **double** getcommissionRate() {

**return** commissionRate;

}

**public** **double** getsalesAmount() {

**return** salesAmount;

}

}

**package** Lab2;

**public** **class** TestEmployees {

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

// name, department, payRate, dues

Employee uEmp1 = **new** UnionEmployee("Jim", "CE", 30, 20);

Employee uEmp2 = **new** UnionEmployee("Kim", "IT", 40, 15);

Employee uEmp3 = **new** UnionEmployee("Tim", "JD", 45, 30);

// name, department, payRate, commissionRate, salesAmount

Employee cEmp1 = **new** CommissionEmployee("Jane", "CE", 30,5,1100.00);

Employee cEmp2 = **new** CommissionEmployee("Tommy", "IT", 40, 9,1000.00);

Employee cEmp3 = **new** CommissionEmployee("Peter", "JD", 45, 16,900.00);

TestEmployees tEmp = **new** TestEmployees();

tEmp.display(uEmp1,cEmp1,35,35);

tEmp.display(uEmp2,cEmp2,40,40);

tEmp.display(uEmp3,cEmp3,45,45);

}

**void** display(Employee uemp, Employee cemp, **int** numofhours, **int** numofhours1) {

System.***out***.println("Commission Employee Name is:"+cemp.getname());

System.***out***.println("Commission Employee Department is:" + cemp.getdepartment());

System.***out***.println("Weekly pay for Commission Employee:"cemp.weeklypay(numofhours1));

System.***out***.println("--------------------------------------------------------------");

System.***out***.println("Union Employee Name is:" + uemp.getname());

System.***out***.println("Union Employee Department is:" + uemp.getdepartment());

System.***out***.println("Weekly pay for Union Employee:" + uemp.weeklypay(numofhours));

System.***out***.println("--------------------------------------------------------------");

}

}

**Output:**

