Lab Assignment-08

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QUES 1: Define two packages as – General and Marketing. In General package define a class employee with data members as empid(protected), ename(private) and a public method as earnings() which calculate total earnings as earnings = basic + DA (80% of basic) + HRA (15% of basic). In Marketing package define a class ,sales‟ which is extending from ,employee class and has a method tallowance() which calculates Travelling Allowance as 5% of total earning. Write the programs to find out total earning of a sales person for the given basic salary amount and print along with the emp id.

SOLUTION:

Employee.java

package General;

public class Employee {

    protected *int* empid;

    private String ename;

    private *double* basic, DA, HRA;

    public Employee(String *n*, *int* *id*, *double* *b*) {

        ename = *n*;

        basic = *b*;

        empid = *id*;

        DA = *b* \* 0.8;

        HRA = *b* \* 0.5;

    }

    public *double* earnings() {

        return basic + DA + HRA;

    }

    public *void* printName() {

        System.out.println("Name: " + ename);

    }

}

Sales.java

package Marketing;

import java.util.\*;

import General.\*;

class Saless {

    public static *double* tallowance(*double* *e*) {

        return *e* \* 0.05;

    }

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

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter Name: ");

        String name = sc.nextLine();

        System.out.println("Enter Employee ID: ");

*int* id = sc.nextInt();

        System.out.println("Enter Basic salary: ");

*double* sal = sc.nextDouble();

        Employee obj1 = new Employee(name, id, sal);

        obj1.printName();

*double* e = obj1.earnings();

        System.out.println("Earnings: " + e);

        System.out.println("Travel Allowance: " + tallowance(e));

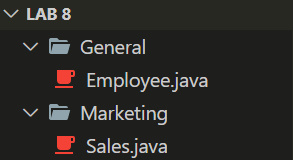
        System.out.println("Employee ID: " + id);

        sc.close();

    }

}

Package Creation:



OUTPUT:

Enter Name:

Sahil

Enter Employee ID:

2005535

Enter Basic salary:

120000

Name: Sahil

Earnings: 276000.0

Travel Allowance: 13800.0

*Employee* ID: 2005535

QUES 2: Define an interface Motor with a data member –capacity and two methods such as run() and consume(). Define a Java class Washing machine which implements this interface and write the code to check the value of the interface data member thru an object of the class.

SOLUTION:

import java.util.Scanner;

interface motor {

*void* run();

*int* c = 10;

*void* consume();

}

class WM implements motor {

    Scanner input = new Scanner(System.in);

*int* lt;

    public *void* consume() {

        System.out.println("Enter the litres of water available: ");

        lt = input.nextInt();

    }

    public *void* run() {

        if (lt > c) {

            System.out.println("Error, cannot run");

        } else {

            System.out.println("Okay, can run");

        }

    }

}

class Lab8Q2 {

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

        motor a = new WM();

        a.consume();

        a.run();

    }

}

OUTPUT:

Enter the litres of water available:

4

Okay, can run

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