KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

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School of Computer Engineering

WT LAB - 10

Submitted By :

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Section: IT-04

Branch : Information Technology

Q-1Define 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.

CODE:

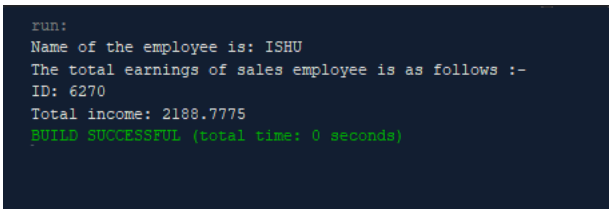
/*General Package*/

```
package general;

public class employee {
   protected int empID;
   private String empName;
   public double basic;

   public employee(int empID, String empName, double basic) {
      this.empID = empID;
      this.empName = empName;
      this.basic = basic;
   }

   public double earnings() {
      double total = 0;
      double DA = 0.8 * basic;
      double HRA = 0.15 * basic;
      total = HRA + DA + basic;

      return total;
   }

   public void name() {
      System.out.println("Name of the employee is: " + empName);
   }

}
```

/*__MARKETING PACKAGE__*/

```
package marketing;
import general.*;


public class sales extends employee{
    sales(int empID, String empName, double basic) {
        super(empID, empName, basic);
    }

    public double travel = 0.05 * super.earnings();
    public double total = travel + super.earnings();

    public void show() {
        System.out.println("The total earnings of sales employee is as follows :-");
        System.out.println("ID: " + empID);
        System.out.println("Total income: " + total);
    }

    public static void main(String[] args) {
        sales s = new sales(6270, "ISHU", 1069);
        s.name();
        s.show();
    }
}
```

OUTPUT:



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Q-2 Write a program to perform following operations on user entered strings (for both String and StringBuffer class) –
i) Change the case of the string
ii) Reverse the string
iii) Compare two strings
iv) Insert one string into another string

CODE:

```
import java.util.Scanner;


public class Q2 {

   public static void manualInsert(String s1, String s2, int i) {
      String total = s1.substring(0, i+1) + s2 + s1.substring(i+1);
      System.out.println("Total string after insertion of s2 into s1 at index i:- ");
      System.out.println(total);
   }


   public static void changeCase(String s1, String s2) {
      System.out.println("Uppercase S1 "+ s1.toUpperCase());
      System.out.println("Lowercase S1 "+ s1.toLowerCase());
      System.out.println("Uppercase S2 "+ s2.toUpperCase());
      System.out.println("Lowercase S2 "+ s2.toLowerCase());
   }


   public static void compare(String s1, String s2) {
      System.out.println("Comparing S1 with S2 :-");
      if(s1.equals(s2)) {
         System.out.println("S1 and S2 are equal");
      } else {
         System.out.println("S1 and S2 are unequal");
      }
   }


   public static void reverse(String s1, String s2) {
      String rev = "";
```

```
        System.out.println("Reversing String S1 :-");
        for (int i=0; i<s1.length(); i++) {
            char ch = s1.charAt(i);
            rev = ch + rev;
        }
        System.out.println("Reversed String S1: "+ rev);

        rev = "";
        System.out.println("Reversing String S2 :-");
        for (int i=0; i<s2.length(); i++) {
            char ch = s2.charAt(i);
            rev = ch + rev;
        }
        System.out.println("Reversed String S2: "+ rev);
    }


    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter 2 strings s1 & s2 :-");
        String s1 = sc.nextLine();
        String s2 = sc.nextLine();

        System.out.print("Enter the insertion index: ");
        int i = sc.nextInt();

        changeCase(s1, s2);
        reverse(s1, s2);
        compare(s1, s2);
        manualInsert(s1, s2, i);
        sc.close();
    }


}
```

OUTPUT:

```
run:
Enter 2 strings s1 & s2 :-
ISHU
KUMAR
Enter the insertion index: 3
Uppercase S1 ISHU
Lowercase S1 ishu
Uppercase S2 KUMAR
Lowercase S2 kumar
Reversing String S1 :-
Reversed String S1: UHSI
Reversing String S2 :-
Reversed String S2: RAMUK
Comparing S1 with S2 :-
S1 and S2 are unequal
Total string after insertion of s2 into s1 at index i:-
ISHUKUMAR
BUILD SUCCESSFUL (total time: 6 seconds)
```

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