/* 1.Create a class named Employee that consists following members to store and print the Employee Salary details:-

#.instance variables:-ecode(string), ename(string), post(string), ebasic(double) to store Employee details.

#.methods:-

***void input(string,string,string,double):-method to accept four arguments respectively ecode(string), ename(string), post(string), ebasic(double).**

***double gda():-method to calculate Dearness Allowance**

***double ghra():-method to calculate House Rent Allowance**

***double gross():-method to calculate Gross/Total Salary**

***double gitax():-method to calculate Income Tax**

***double gnetsal():-method to calculate Net Salary**

***void print():-method to print stored Employee salary details**

Display the complete functionality

/OR

Write main() method, instantiate object and call all method exactly once.

[Make suitable assumption if necessary] */

```
import java.util.*;

class Employee{

private String ecode,ename,epost;

private double ebasic;
```

```
void input(String eid, String name, String post, double basic){
ecode=eid;
ename=name;
epost=post;
ebasic=basic;
}
double gda(){
return(ebasic*30/100);
}
double ghra(){
double hra=ebasic*20/100;
return(hra);
}
double gross(){
return(ebasic+gda()+ghra());
}
double gitax(){
return(gross()*12/100);
}
double gnetsal(){
return(gross()-gitax());
}
void print(){
System.out.println("= = = Employee Salary Details = = = Dated :"+new Date());
System.out.println("Employee Code :"+ecode);
```

```
System.out.println("Employee Name :"+ename);
System.out.println("Post/Designation :"+epost);
System.out.println("Basic Pay in Rs. :"+ebasic);
System.out.println("Dearness Allowance in Rs. :"+gda());
System.out.println("House Rent Allowance in Rs. :"+ghra());
System.out.println("= = = = = = = = = = = = = = = = = =");
System.out.println("Gross/Total Salary in Rs. :"+gross());
System.out.println("Income Tax Deduction in Rs. :"+gitax());
System.out.println("= = = = = = = = = = = = = = = = = =");
System.out.println("Net Salary in Rs. :"+gnetsal());
}
```

}//Close of class Employee

```
class OEmployee{
public static void main(String args[]){
Scanner A=new Scanner(System.in);
Employee E=new Employee();
System.out.println();
System.out.print("Enter Employee ecode ::");
String ecode=A.nextLine().toUpperCase();
//System.out.println(ecode);
System.out.print("Enter Employee name ::");
String ename=A.nextLine().toUpperCase();
//System.out.println(ename);
System.out.print("Enter Post/Designation ::");
```

```
String epost=A.nextLine().toUpperCase();
//System.out.println(epost);
System.out.print("Enter Basic pay in Rs. ::");
double ebasic=A.nextDouble();
//System.out.println(ebasic);
E.input(ecode,ename,epost,ebasic);
E.print();
}//Close of main
}//Close of class OEmployee
```

//OUTPUT

```
Enter Employee ecode ::E001
Enter Employee name ::RAJNISH RANJAN
Enter Post/Designation ::MANAGER
Enter Basic pay in Rs. ::100000.0
= = = Employee Salary Details = = = Dated :Tue Jan 05 20:01:51 IST 2016
Employee Code :E001
Employee Name :RAJNISH RANJAN
Post/Designation :MANAGER
Basic Pay in Rs. :100000.0
Dearness Allowance in Rs. :30000.0
House Rent Allowance in Rs. :20000.0
= = = = = = = = = = = = = = = = = =
Gross/Total Salary in Rs. :150000.0
```

Income Tax Deduction in Rs. :18000.0

= = = = = = = = = = = = = = = = = =

Net Salary in Rs. :132000.0

/* 2.Create a class named Time that consists following members to store and print time in "hh:mm:ss" format:-

#.instance variables:-hour(int), min(int), and sec(int) to store time.

#.methods:-

***void atime(int,int,int):-method to accept three arguments respectively hour(int), min(int), and sec(int).**

***void ptime():-method to print stored time in format "hh:mm:ss"**

***Time addTime(Time):-method to add two time object.**

Display the complete functionality

/OR

Write main() method, instantiate object and call all method exactly once.

[Make suitable assumption if necessary] */

```
import java.util.Scanner;

class Time{

private int hour,min,sec;

void atime(int h, int m, int s){

hour=h;

min=m;
```

```
sec=s;
}
void ptime(){
if (sec>59){
min=min+sec/60;            //min+=sec/60;
sec=sec%60;                //sec%=60
}
if (min>59){
hour=hour+min/60;       //hour+=min/60;
min=min%60;                //min%=60
}
if (hour>23)
hour=0;
String hr="";
String mn="";
String sc="";
if (hour<10)
hr="0";
if (min<10)
mn="0";
if (sec<10)
sc="0";
System.out.println(hr+hour+":"+mn+min+":"+sc+sec);
}
Time addTime(Time T){
```

```
Time tm=new Time();
tm.hour=hour+T.hour;
tm.min=min+T.min;
tm.sec=sec+T.sec;
return(tm);
}
```

}//Close of class Time

```
class OTime{
public static void main(String args[]){
Scanner B=new Scanner(System.in);
Time T1=new Time();
Time T2=new Time();
System.out.println();
System.out.print("Enter Time respectively in hour, min and sec ::");
int h1=B.nextInt();
int m1=B.nextInt();
int s1=B.nextInt();
//System.out.println(h1);
//System.out.println(m1);
//System.out.println(s1);
T1.atime(h1,m1,s1);
T1.ptime();
System.out.print("Enter Time respectively in hour, min and sec ::");
int h2=B.nextInt();
```

```
int m2=B.nextInt();
int s2=B.nextInt();
//System.out.println(h2);
//System.out.println(m2);
//System.out.println(s2);
T2.atime(h2,m2,s2);
T2.ptime();
Time tm=T1.addTime(T2);
System.out.println("-------------------------");
tm.ptime();
```

}//Close of main

}//Close of class OTime

//OUTPUT

```
Enter Time respectively in hour, min and sec ::5
42
55
05:42:55
Enter Time respectively in hour, min and sec ::6
40
50
06:40:50
-------------------------
12:23:45
```

/* 3.Create a class named Student that consists following members to support Student Result automation by applying the following condition:-

#.instance variables:-enrolNo(string), sname(string), eprog(string) and marks obtained in vb(double), cpp(double) and java(double).

#.methods:-

***void accept(string,string,string,double,double,double):-method to accept student informations.**

***void printResult():-method to print Student VI semester result**

***void calResult():-method to compute/calculate the Student result as per the condition given below:-**

1.Each paper(i.e.; language) is of maximum marks 200

2.Pass mark is 40% of the maximum marks

3.Print/display remarks as follows:-

#if a student passed in all subject(i.e.; languages) and

70>=aggregate <=100--------Excellent

60>=aggregate <=69 --------Very Good

50>=aggregate <=59 --------Good

40>=aggregate <=49 --------Pass

otherwise --------FAIL

Display the complete functionality

/OR

Write main() method, instantiate object and call all method exactly once.

[Make suitable assumption if necessary] */

```
import java.util.*;

class Student{

private String enrolNo,sname,eprog,sem="VI";

private double vb,cpp,java,max=200;

void accept(String eno, String name, String prog, double m_vb, double m_cpp, double m_java){

enrolNo=eno;

sname=name;

eprog=prog;

vb=m_vb;

cpp=m_cpp;

java=m_java;

}

double gtotal(){

return(vb+cpp+java);

}

double aggregate(){

return(gtotal()*100/(max*3));

}

String remarks(){

String rem="PASS";

double agg=aggregate();
```

```
double pass=max*40/100;
if (vb>=pass && cpp>=pass && java>=pass)
if(agg>=50)
if(agg<=59)
rem="GOOD";
else if (agg<=69)
rem=" VERY GOOD";
else
rem="EXCELLENT";
else
rem="FAIL";
return(rem);
}
void calResult(){
System.out.println("= = = Student Result = = = Dated :"+new Date());
System.out.println("Enrolment No. :"+enrolNo);
System.out.println("Student Name :"+sname);
System.out.println("Enrolled-in-Programme :"+eprog);
System.out.println("Semester. :"+sem);
System.out.println("Marks obtained in Visual Basic :"+vb);
System.out.println("Marks obtained in C++ :"+cpp);
System.out.println("Marks obtained in Java :"+java);
System.out.println("= = = = = = = = = = = = = = = = = =");
System.out.println("Total Marks obtained :"+gtotal());
System.out.println("Aggregate :"+aggregate()+"%");
```

```
System.out.println("= = = = = = = = = = = = = = = = = =");
System.out.println("Remarks :"+remarks());
}
```

}//Close of class Student

```
class OStudent{
public static void main(String args[]){
Scanner C=new Scanner(System.in);
Student X=new Student();
System.out.println();
System.out.print("Enter Student Enrolment No. :");
String eno=C.nextLine().toUpperCase();
//System.out.println(eno);
System.out.print("Enter Student Name :");
String name=C.nextLine().toUpperCase();
//System.out.println(name);
System.out.print("Enter Enrolled-in-Programme :");
String prog=C.nextLine().toUpperCase();
//System.out.println(prog);
System.out.print("Enter Marks obtained in Visual Basic :");
double vb=C.nextDouble();
//System.out.println(vb);
System.out.print("Enter Marks obtained in C++ :");
double cpp=C.nextDouble();
//System.out.println(cpp);
```

```
System.out.print("Enter Marks obtained in Java :");
double java=C.nextDouble();
//System.out.println(java);
X.accept(eno,name,prog,vb,cpp,java);
X.calResult();
```

}//Close of main

}//Close of class OStudent

//OUTPUT

```
Enter Student Enrolment No. :S001
Enter Student Name :RAJNISH RANJAN
Enter Enrolled-in-Programme :BCA
Enter Marks obtained in Visual Basic :160.0
Enter Marks obtained in C++ :175.0
Enter Marks obtained in Java :189.0
= = = Student Result = = = Dated :Tue Jan 05 20:05:56 IST 2016
Enrolment No. :S001
Student Name :RAJNISH RANJAN
Enrolled-in-Programme :BCA
Semester. :VI
Marks obtained in Visual Basic :160.0
Marks obtained in C++ :175.0
Marks obtained in Java :189.0
= = = = = = = = = = = = = = = = = =
```

Total Marks obtained :524.0

Aggregate :87.33333333333333%

= = = = = = = = = = = = = = = = = =

Remarks :EXCELLENT