

LAB PROGRAM-6

Create a package CIE which has two classes- Student and Internals. The class Personal has members like usn, name, sem. The class internals has an array that stores the internal marks scored in five courses of the current semester of the student. Create another package SEE which has the class External which is a derived class of Student. This class has an array that stores the SEE marks scored in five courses of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five courses.

Program:

```
package SEE;  
import CIE.*;  
import java.util.Scanner;  
public class Externals extends Student  
{  
  public int seem[]=new int[5];  
  Scanner xx =new Scanner (System.in);  
  public void accept()  
  {  
    for(int i=0;i<5;i++)  
    {  
      System.out.println("Enter the see marks of  
subject"+(i+1));  
      {  
        seem[i]=xx.nextInt();  
      }  
    }  
  }  
}  
/////////////////////////////////////  
package CIE;  
import java.util.Scanner;  
public class Internals extends CIE.Student  
{  
  public int ciem[]=new int[5];  
  Scanner xx =new Scanner (System.in);  
  public void accept()  
  {  
    for(int i=0;i<5;i++)
```

```

    {
        System.out.println("Enter the cie marks of
subject"+(i+1));
    }
    ciem[i]=xx.nextInt();
}
}
}
}
}
////////////////
package CIE;
import java.util.Scanner;
public class Student
{
    String name,usn;
    int sem;
    Scanner xx=new Scanner(System.in);
    public void accept()
    {
        System.out.println("Enter name:");
        name=xx.nextLine();
        System.out.println("Enter usn:");
        usn=xx.next();
        System.out.println("Enter sem:");
        sem=xx.nextInt();
    }
    public void display()
    {
        System.out.println("Name :"+name);
        System.out.println("Usn :"+usn);
        System.out.println("Sem :"+sem);
    }
}
}
////////////////
import java.util.*;
import java.lang.String;
import java.awt.*;
import java.awt.event.*;
class generic<DT1,DT2,DT3>
{
    DT1 obj;
    DT2 obj1;
    DT3 obj2;
    generic(DT1 a,DT2 b,DT3 c)

```

```

{
    obj=a;
    obj1=b;
    obj2=c;
}
DT1 get1()
{
    return obj;
}
DT2 get2()
{
    return obj1;
}
DT3 get3()
{
    return obj2;
}
void showdatatype()
{
    System.out.println("THE TYPES OF DATATYPE USED
IS="+obj.getClass().getName());
    System.out.println("THE TYPES OF DATATYPE USED
IS="+obj1.getClass().getName());
    System.out.println("THE TYPES OF DATATYPE USED
IS="+obj2.getClass().getName());
}
}
class genericmain
{
    public static void main(String args[])
    {
        Scanner s=new Scanner(System.in);
        System.out.println("ENTER THE VALUES");
        int x=s.nextInt();
        String str=s.next();
        double xx=s.nextDouble();
        generic<Integer,String,Double> a=new
generic<Integer,String,Double>(x,str,xx);
        a.showdatatype();
        System.out.println("THE INTEGER ENTERED
IS="+a.get1());
        System.out.println("THE STRING ENTERED
IS="+a.get2());
        System.out.println("THE INTEGER ENTERED

```

```
IS="+a.get3():
```

```
}
```

```
}
```

OUTPUT:

```
Command Prompt
Microsoft Windows [Version 10.0.18362.1016]
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C:\Users\arpit>cd..

C:\Users>cd..

C:\>cd java lab\packages

C:\java lab\packages>javac Main.java

C:\java lab\packages>java Main
Enter the number of students:
2
Name:
aaa
USN:
1234
Semester:
3
CIE Marks for 5 subjects(out of 50):
34
34
12
45
43
SEE Marks for 5 subjects(out of 100):
87
43
87
87
25
Total marks of student: aaa in 5 subjects are:
77.5
55.5
55.5
78.5
55.5
Name:
bbb
USN:
5678
Semester:
3
CIE Marks for 5 subjects(out of 50):
45
50
46
43
```

```
Command Prompt
Name:
aaa
USN:
1234
Semester:
3
CIE Marks for 5 subjects(out of 50):
34
34
12
45
43
SEE Marks for 5 subjects(out of 100):
87
43
87
87
25
Total marks of student: aaa in 5 subjects are:
77.5
55.5
55.5
78.5
55.5
Name:
bbb
USN:
5678
Semester:
3
CIE Marks for 5 subjects(out of 50):
45
50
46
47
48
SEE Marks for 5 subjects(out of 100):
88
87
89
90
93
Total marks of student: bbb in 5 subjects are:
94.0
93.5
90.5
92.0
94.5
```