LAB PROGRAM – 8

Q. Create a package CIE which has two classes- Student and Internals- a subclass of Student. The class Student 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.

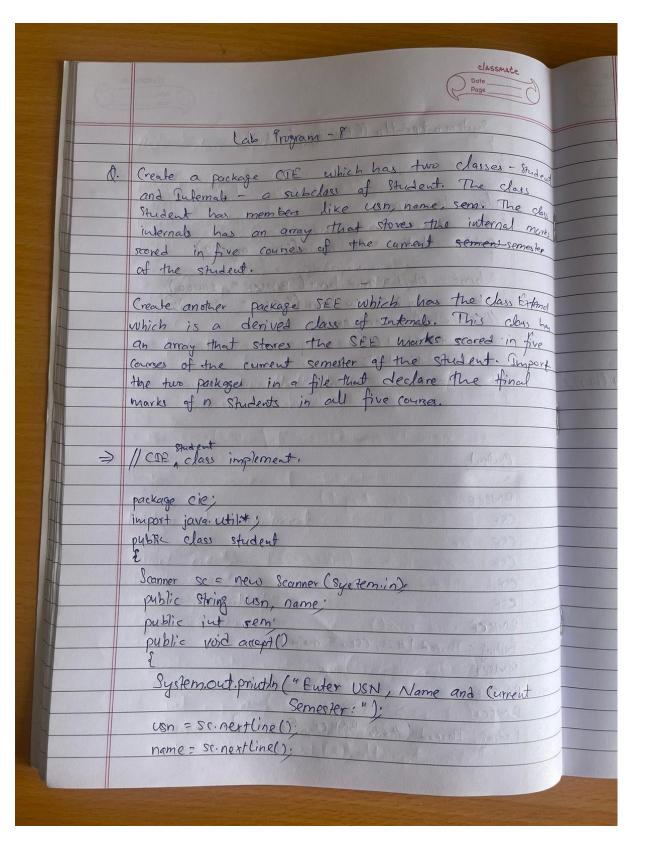
Create another package SEE which has the class External which is a derived class of Internals. This class has an array that stores the SEE marks scored in five courses of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five courses.

```
//CIE Student class implement
package cie;
import java.util.*;
public class student
{
  Scanner sc=new Scanner(System.in);
  public String usn,name;
  public int sem;
  public void accept()
       {
       System.out.println("Enter USN, Name and Current semester: ");
       usn=sc.nextLine();
       name=sc.nextLine();
       sem=sc.nextInt();
       }
public void display()
       System.out.println("\nStudent Details");
       System.out.println("Name: "+name);
       System.out.println("USN: "+usn);
       System.out.println("Semester: "+sem);
```

```
}
}
//CIE Internals Class implement
package cie;
import java.util.*;
public class internals extends cie.student
{
  Scanner sc=new Scanner(System.in);
  public int ciem[]=new int[5];
  public void accept()
  {
     int i;
     for(i=0;i<5;i++)
     {
        System.out.println("Enter CIE marks of subject "+(i+1));
        ciem[i]=sc.nextInt();
    }
  }
}
//SEE class implement
package see;
import cie.*;
import java.util.*;
public class externals extends cie.student
Scanner sc=new Scanner(System.in);
```

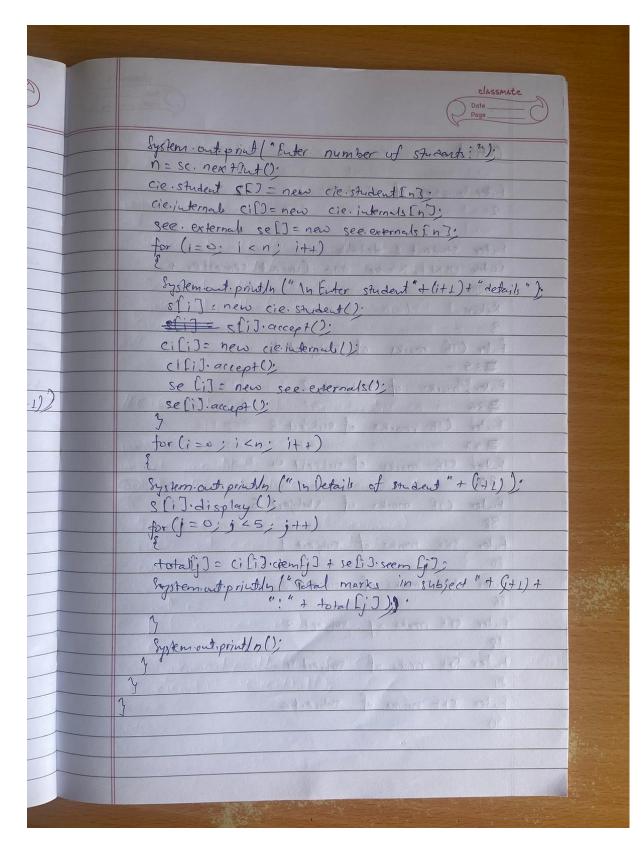
```
public int seem[]=new int[5];
public void accept()
  {
     for(int i=0;i<5;i++)
     {
       System.out.println("Enter SEE marks of subject "+(i+1));
        seem[i]=sc.nextInt();
     }
  }
}
//Main class implement
import cie.*;
import see.*;
import java.util.*;
class packages
{
 public static void main(String args[])
 {
     int i,j,n;
     Scanner sc=new Scanner(System.in);
     int total[]=new int[5];
     System.out.println("Enter number of students: ");
     n=sc.nextInt();
     cie.student s[]=new cie.student[n];
     cie.internals ci[]=new cie.internals[n];
    see.externals se[]=new see.externals[n];
     for(i=0;i< n;i++)
```

```
{
        System.out.println("\nEnter student "+(i+1)+" details");
        s[i]=new cie.student();
        s[i].accept();
        ci[i]=new cie.internals();
        ci[i].accept();
        se[i]=new see.externals();
        se[i].accept();
     }
     for(i=0;i< n;i++)
     {
        System.out.println("\nDetails of student "+(i+1));
        s[i].display();
       for(j=0;j<5;j++)
          total[j]=ci[i].ciem[j]+se[i].seem[j];
          System.out.println("Total marks in subject "+(j+1)+": "+total[j]);
        }
        System.out.println();
     }
  }
}
```



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	import cie. *;	
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	public void accept()	
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	11 Main class implement	
	import cie. *; import see. *; import java. util. *;	
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	public Static void mais (87 ring cross 127)	
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Semester: 3

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	Details of student 2
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	Total marks in subject 41 169
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