

### Lab Program 8 :

Q) 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.

### CODE SNIPPET :

Lab - 8

a) 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.

Student.java :

```
package CIE;
import java.util.*;
public class Student
{
    String usn;
    String name = new String();
    int sem;
    public void setinfo()
    {
        System.out.println("Enter usn, name, sem:");
        Scanner ss = new Scanner(System.in);
        usn = ss.next();
        name = ss.next();
        sem = ss.nextInt();
    }
}
```

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```
public void display()
{
    System.out.println("osn: " + usn);
    System.out.println("NAME" + name);
    System.out.println("SEM : " + sem);
}
}
```

Internals.java :

```
package CIE;
import java.util.*;
public class internals extends student
{
    public double arrcic[] = new double[5];
    public void setd()
    {
        System.out.println("Enter marks for 5 Subjects");
        Scanner ss = new Scanner(System.in);
        for (int i = 0; i < 5; i++)
        {
            arrcic[i] = ss.nextDouble();
        }
    }
    public void disp()
    {
        System.out.println("CIE marks of 5 sub are:");
        for (int i = 0; i < 5; i++)
        {
            System.out.println(arrcic[i]);
        }
    }
}
```

External.java

```
package SEE;  
import CIE.internals;  
import java.util.*;
```

```
public class external extends internal  
{
```

```
    public double arrsee[] = new double[5];  
    double finalm[] = new double[5];
```

```
    public void set()  
    {
```

```
        System.out.println("Enter marks for 5 Subjects of SEE :");  
        Scanner ss = new Scanner(System.in);  
        for(int i = 0; i < 5; i++)
```

```
        {  
            arrsee[i] = ss.nextDouble();  
        }
```

```
    }
```

```
    public void disp2()  
    {
```

```
        System.out.println("SEE MARKS of 5 SUB ARE :");  
        for(int i = 0; i < 5; i++)
```

```
        {  
            System.out.println(arrsee[i]);  
        }
```

```
    }
```

```
    public void finalmarks()  
    {
```

```
        for(int i = 0; i < 5; i++)
```

```
        {  
            finalm[i] = arrsee[i] + arrcie[i];  
        }
```

```
    }
```

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```

public void diptC()
{
    System.out.println("FINAL MARKS IS: ");
    for(int i=0; i<5; i++)
    {
        System.out.println(finalm[i]);
    }
}
}

```

Main.java

```

import CIE.student;
import CIE.internals;
import SEC.external;
import java.util.*;

class Main
{
    public static void main(String x[])
    {
        System.out.println("Enter no of students:");
        Scanner ss = new Scanner(System.in);
        int n;
        double fin[] = new double[5];
        n = ss.nextInt();
        external e1[] = new external[n];
        for(int i=0; i<n; i++)
        {
            e1[i] = new external();
            e1[i].setinfo();
            e1[i].setd();
        }
    }
}

```



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```
e1[i].set();  
e1[i].finalmark();  
e1[i].dispt();  
}
```

```
}
```

OUTPUT:

Enter no of students:

2

Enter usn, name, sem:

1BM21CS022 Anagha 3

Enter marks for 5 subjects:

45

48

49

43

47

Enter marks for 5 subjects of SEE:

49

49

48

45

46

FINAL MARKS IS :

94.0

97.0

97.0

86.0

93.0

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Enter usn, name, sem:

IBM2111001 Sneha 3

Enter marks for 5 Subjects:

45

48

42

49

47

Enter marks for 5 Subjects for SEE:

43

45

46

47

48

FINAL MARKS IS:

88.0

93.0

81.0

96.0

95.0

**OUTPUT :**

```
C:\Users\Anagha\Desktop\1BM21CS022>java Main
Enter no of students :
2
Enter usn,name,sem:
1BM21CS022 Anagha 3
Enter marks for 5 subjects :
45
48
49
43
47
Enter marks for 5 subjects for SEE :
49
49
48
45
46
FINAL MARKS IS :
94.0
97.0
97.0
88.0
93.0
```

```
Enter usn,name,sem:
1BM21CS001 Sneha 3
Enter marks for 5 subjects :
45
48
42
49
47
Enter marks for 5 subjects for SEE :
43
45
46
47
48
FINAL MARKS IS :
88.0
93.0
88.0
96.0
95.0
```