

- Q) Create a package CIE which has two class - student and internal. The class personal has members like vsn, name, sem. The class internal has an array that store the internal marks scored in 5 course of the current semester of the student. Implement the two package in a file that declare the final marks of n students in all 5 course.

⇒ package CIE;

```
public class Personal {  
    public String vsn;  
    public String name;  
    public int sem;
```

```
    public Personal(String vsn, String name, int sem) {  
        this.vsn = vsn;  
        this.name = name;  
        this.sem = sem;  
    }  
}
```

```
public class Internal {  
    public int[] internalMarks = new int[5];
```

```
    public Internal(int[] marks) {  
        for (int i = 0; i < 5; i++)  
            this.internalMarks[i] = marks[i];  
    }  
}
```

```
}
```

```
package SEE;
```

```
import CIE.personal
```

```
public class External extends person Personal {
```

```
    public int[] seeMarks = new int [5];
```

```
    public External (String usn, String name, int [] seeMarks) {
```

```
        super (usn, name, see);
```

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

```
            this.seeMarks[i] = seeMarks[i];
```

```
    }
```

```
}
```

```
import CIE. Personal;  
import CIE. Internal;  
import SEE. External;  
import java.util. Scanner
```

```
public class FinalMarksCalculator {
```

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

```
        System.out.println("Enter no. of students:");  
        int n = Sc.nextInt();
```

```
        Personal [] pd = new Personal [n];  
        Internal [] id = new Internal [n];  
        External [] ed = new External [n];
```

```
        for (int i = 0; i < n; i++) {  
            System.out.print("Enter details for " + (i+1) + "th student");
```

```
            System.out.print("Enter USN, name, sem:");  
            String USN = Sc.next();  
            String name = Sc.nextLine();  
            int sem = Sc.nextInt();
```

```
            int [] IM = new int [5];
```

```
            System.out.print("Enter marks:");  
            for (int j = 0; j < 5; j++)  
                IM[j] = Sc.nextInt();  
            ID[i] = new Internal [IM];
```

```
int[] SEE = new int[S];
```

```
System.out.println("Enter SEE marks");
```

```
for (int j = 0; j < S; j++)
```

```
SEE[j] = Sc.nextInt();
```

```
ed[i] = new Extends (usrn, nam, sem, SEE);
```

```
} }
```

```
System.out.println("Final result mark");
```

```
for (int i = 0; i < n; i++) {
```

```
System.out.println("Student " + (i+1) + " (" + pd[i].usrn + " - " + pd[i].nam + ")");
```

```
for (int j = 0; j < S; j++) {
```

```
int FM = id[i].In[i] + (ed[i].see[i]/2);
```

```
System.out.println("Subject " + (j+1) + " : " + finalMark);
```

```
}
```

```
}
```

```
}
```

```
}
```

G/P: no. of students 2

IBM21CS001

Alice

5

20 18 14 17 20

60 65 75 80 90

IBM21CS002

Bob

5

22 21 20 18 14

70 75 85 90 95

Final marks

std1 (IBM21CS001 - Alice)

55

48

51

54

60

std2 (IBM21CS002 - Bob)

62

56

57

60

64

19.11