JAVA_Packages

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CODE:

For package

```
package Divyaspackage;
                                 //package name
import java.util.Scanner;
//package class
public class MyPackage
      Scanner sc=new Scanner(System.in);
      //function taking student details
      public void take_info()
             System.out.println("Enter the name:");
             sc.nextLine();
             String name= sc.nextLine();
             System.out.println("Enter the roll no:");
             int roll no=sc.nextInt();
      }
      //calculating total
      public double total(double a[],int n)
             double sum=0;
             for(int i=0;i<n;i++)</pre>
                    sum=sum+a[i];
             System.out.println("Total score is "+sum);
             return sum;
      }
      //Printing result in percentage and class
      public void final_result(int n,double total)
             double per=(total/n); //calculating percentage marks
             System.out.println("Student has scored "+per+" %");
             if(per>=40)
             {
                    if(per<=100 && per>=85)
                          System.out.println("Congratulations !! You have got
distinction with "+per+" %");
                   else if(per<85 && per>75)
```

```
System.out.println("You have got FIRST CLASS with "+per
+" %");
                    }
else if(per<75 && per>50)
                    {
                           System.out.println("You have got SECOND CLASS with
"+per +" %");
                    }
                    else
                    {
                          System.out.println("You have got THIRD CLASS with "+per
+" %");
                    System.out.println("\n\n");
             }
else
                    System.out.println("Student is failed");
      }
}
```

FOR USING PACKAGE IN STUDENTS DATA MANIPULATION CODE:

```
package Newpack; //package of this file
import Divyaspackage.*; //importing package we want to use
import java.util.Scanner;
public class usingpackage
      public static void main(String [] args)
             Scanner sc=new Scanner(System.in);
             MyPackage pack=new MyPackage();
                                                           //instatiation
             System.out.println("------WELCOME TO ANNUAL REPORT CARD---
----");
             System.out.println("Enter the number of students:");
             int stud=sc.nextInt();
             for(int j=0;j<stud;j++)</pre>
                   pack.take_info();
                   System.out.println("Enter the number of subjects:");
                   int n=sc.nextInt();
                   double[] arr=new double[n];
                   System.out.println("Enter the marks in all 5 subjects:");
                   for(int i=0;i<n;i++)</pre>
                   {
                          System.out.print("Marks in "+(i+1)+" th subject:");
                          arr[i]=sc.nextDouble();
                   }
                   double total=pack.total(arr, n);
                   pack.final_result(n, total);
             }
      }
}
```

```
Enter the name:
Gauri
Enter the roll no:
Enter the number of subjects:
Enter the marks in all 5 subjects:
Marks in 1 th subject:96
Marks in 2 th subject:89
Marks in 3 th subject:90
Marks in 4 th subject:96
Marks in 5 th subject:100
Total score is 471.0
Student has scored 94.2 %
Congratulations !! You have got distinction with 94.2 %
Enter the name:
Enter the roll no:
Enter the number of subjects:
Enter the marks in all 5 subjects:
Marks in 1 th subject:35
Marks in 2 th subject:34
Marks in 3 th subject:39
Marks in 4 th subject:37
Marks in 5 th subject:36
Total score is 181.0
Student has scored 36.2 %
Student is failed
```

```
usingpackage (1) [Java Application] C:\Program Files\Java\jdk-14.0.1\bin\javaw.exe (Nov 1, 2020, 1
------WELCOME TO ANNUAL REPORT CARD------
Enter the number of students:
Enter the name:
Divya
Enter the roll no:
Enter the number of subjects:
Enter the marks in all 5 subjects:
Marks in 1 th subject:100
Marks in 2 th subject:89
Marks in 3 th subject:78
Marks in 4 th subject:65
Marks in 5 th subject:90
Total score is 422.0
Student has scored 84.4 %
You have got FIRST CLASS with 84.4 %
Enter the name:
Namrata
Enter the roll no:
Enter the number of subjects:
Enter the marks in all 5 subjects:
Marks in 1 th subject:56
Marks in 2 th subject:65
Marks in 3 th subject:75
Marks in 4 th subject:45
Marks in 5 th subject:36
Total score is 277.0
Student has scored 55.4 %
You have got SECOND CLASS with 55.4 %
```