***Dt : 22/8/2022***

***define switch-case statement?***

***=>switch-case statement is used to select one from multiple***

***available options or cases.***

***syntax:***

***switch(value)***

***{***

***case 1 : statements;***

***break;***

***case 2 : statements;***

***break;***

***.***

***.***

***default : statements;***

***}***

***Execution behaviour:***

***=>The switch-value is compared with available options or cases***

***and if the switch-value is matched with any case,then the***

***statements under the case are executed.***

***=>After executing statements we use 'break' to stop the***

***switch-case execution.***

***=>If the switch-value is not matched with available options***

***then 'default' statements are executed.***

***=======================================================***

***Assignment:(Solution)***

***wap to read two integer values and perform the following***

***operations based on User choice:***

***1.add***

***2.sub***

***3.mul***

***4.div***

***5.modDiv***

***import java.util.Scanner;***

***class Addition //SubClass***

***{***

***int add(int x,int y)***

***{***

***return x+y;***

***}***

***}***

***class Subtraction //SubClass***

***{***

***int sub(int x,int y)***

***{***

***return x-y;***

***}***

***}***

***class Multiplication //SubClass***

***{***

***int mul(int x,int y)***

***{***

***return x\*y;***

***}***

***}***

***class Division //SubClass***

***{***

***float div(int x,int y)***

***{***

***return (float)x/y;//TypeCasting process***

***}***

***}***

***class ModDivision //SubClass***

***{***

***int modDiv(int x,int y)***

***{***

***return x%y;***

***}***

***}***

***class DemoMethods7 //MainClass***

***{***

***public static void main(String[] args)***

***{***

***Scanner s = new Scanner(System.in);***

***System.out.println("Enter the value1:");***

***int v1 = s.nextInt();***

***System.out.println("Enter the value2:");***

***int v2 = s.nextInt();***

***System.out.println("====Choice====");***

***System.out.println("1.add\n2.sub\n3.mul\n4.div\n5.modDiv");***

***System.out.println("Enter the choice:");***

***int choice = s.nextInt();***

***switch(choice)***

***{***

***case 1:***

***Addition ad = new Addition();***

***int r1 = ad.add(v1,v2);***

***System.out.println("Sum:"+r1);***

***break;***

***case 2:***

***Subtraction sb = new Subtraction();***

***int r2 = sb.sub(v1,v2);***

***System.out.println("Sub:"+r2);***

***break;***

***case 3:***

***Multiplication ml = new Multiplication();***

***int r3 = ml.mul(v1,v2);***

***System.out.println("Mul:"+r3);***

***break;***

***case 4:***

***Division dv = new Division();***

***float r4 = dv.div(v1,v2);***

***System.out.println("Div:"+r4);***

***break;***

***case 5:***

***ModDivision md = new ModDivision();***

***int r5 = md.modDiv(v1,v2);***

***System.out.println("ModDiv:"+r5);***

***break;***

***default:***

***System.out.println("Invalid Choice....");***

***}//end of switch***

***}***

***}***

***====================================================***

***\*imp***

***Construct Student program using the following Conditions:***

***1.read rollNo***

***=>rollNo must be 10 (Alphanumeric)***

***2.when rollNo is validated then read name and branch***

***=>The branch must be in CSE or ECE or EEE,else invalid***

***branch.***

***3.If the branch is verified Successfully,then read 6 sub marks***

***4.If all the Sub marks are in b/w 0 to 100 then calculate***

***totMarks and percentage.***

***import java.util.Scanner;***

***class CheckBranch***

***{***

***boolean verify(String br)***

***{***

***return switch(br)***

***{***

***case "cse" : yield true;***

***case "ece" : yield true;***

***case "eee" : yield true;***

***default : yield false;***

***};***

***}***

***}***

***class TotalMarks //SubClass***

***{***

***int calculate(int s1,int s2,int s3,int s4,int s5,int s6)***

***{***

***return s1+s2+s3+s4+s5+s6;***

***}***

***}***

***class Percentage //SubClass***

***{***

***float generate(int totMarks)***

***{***

***return (float)totMarks/6;***

***}***

***}***

***class DemoMethods8 //MainClass***

***{***

***public static void main(String[] args)***

***{***

***Scanner s = new Scanner(System.in);***

***System.out.println("Enter the rollNo:");***

***String rollNo = s.nextLine();***

***int len = rollNo.length();***

***if(len==10)***

***{***

***System.out.println("Enter the name:");***

***String name = s.nextLine();***

***System.out.println("Enter the branch:");***

***String br = s.nextLine();***

***CheckBranch cb = new CheckBranch();***

***boolean k = cb.verify(br);***

***if(k)***

***{***

***System.out.println("Enter the marks of subject-1:");***

***int s1 = s.nextInt();***

***System.out.println("Enter the marks of subject-2:");***

***int s2 = s.nextInt();***

***System.out.println("Enter the marks of subject-3:");***

***int s3 = s.nextInt();***

***System.out.println("Enter the marks of subject-4:");***

***int s4 = s.nextInt();***

***System.out.println("Enter the marks of subject-5:");***

***int s5 = s.nextInt();***

***System.out.println("Enter the marks of subject-6:");***

***int s6 = s.nextInt();***

***if((s1>=0 && s1<=100) && (s2>=0 && s2<=100) && (s3>=0&&s3<=100)***

***&& (s4>=0 && s4<=100) && (s5>=0 && s5<=100) &&***

***(s6>=0 && s6<=100))***

***{***

***TotalMarks tm = new TotalMarks();***

***int totMarks = tm.calculate(s1,s2,s3,s4,s5,s6);***

***Percentage p = new Percentage();***

***float per = p.generate(totMarks);***

***System.out.println("=====Details====");***

***System.out.println("TotMarks:"+totMarks);***

***System.out.println("Percentage:"+per);***

***}//end of if***

***else***

***{***

***System.out.println("Invalid Marks...");***

***}***

***}//end of if***

***else***

***{***

***System.out.println("Invalid branch...");***

***}***

***}//end of if***

***else***

***{***

***System.out.println("Invalid rollNo...");***

***}***

***}***

***}***