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**Saylani Mass & IT Training**

**Assignment # 1**

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**Batch # 02**

**Course: Flutter Development**

**Instructor : Sir Bilal Rehman Khan**

**Q.1: Create two integer variables length and breadth and assign values then check if they are square values or rectangle values. ie: if both values are equal then it's square otherwise rectangle.**

**Solution:**

**void main() {**

**int length = 20;**

**int breath = 20;**

**if (length == breath){**

**print("Sqaure");**

**}**

**else{**

**print("Rectangle");**

**}**

**}**

**Q.2: Take two variables and store age then using if/else condition to determine oldest and youngest among them.**

**void main() {**

**int age1 = 35;**

**int age2 = 35;**

**if (age1>age2){**

**print("It is oldest.");**

**}**

**else if (age2>age1){**

**print("It is youngest.");**

**}**

**else {**

**print("They both have same age.");**

**}**

**}**

**Q.3: A student will not be allowed to sit in exam if his/her attendance is less than 75%. Create integer variables and assign value: Number of classes held = 16, Number of classes attended = 10, and print percentage of class attended. Is student is allowed to sit in exam or not?**

**void main() {**

**int NumberOfClasses=16;**

**int AttendClasses= 13;**

**num percentOfclassAttend = (AttendClasses\*100)/NumberOfClasses;**

**if(percentOfclassAttend>=75){**

**print("You are allow to sit in Exam.");**

**}**

**else{**

**print("You are not allow to sit in the exam.");**

**}**

**}**

**Q4: Write a program to convert Celsius to Fahrenheit . i.e: Temperature in degrees Fahrenheit (°F) = (Temperature in degrees Celsius (°C) \* 9/5) + 32**

**void main() {**

**num temperatureInCelcius = 35;**

**print("Temperature in Celcius: ${temperatureInCelcius}°C.");**

**num temperatureInFehreheit = ((temperatureInCelcius)\*(9/5)+32);**

**print("Temperature in Fehreheit: ${temperatureInFehreheit}°F.");**

**}**

**Q.5 Write a program to read temperature in centigrade and display a suitable message according to temperature: You have num variable temperature = 42; Now print the message according to temperature: temp < 0 then Freezing weather temp 0-10 then Very Cold weather temp 10-20 then Cold weather temp 20-30 then Normal in Temp temp 30-40 then Its Hot temp >=40 then Its Very Hot.**

**void main() {**

**num temperature =10;**

**if(temperature<0){**

**print("It is Freezing weather.");**

**}**

**else if(temperature>=0 && temperature<10){**

**print("It is Very Cold weather.");**

**}**

**else if(temperature>=10 && temperature<20){**

**print("It is Cold weather.");**

**}**

**else if(temperature>=20 && temperature<30){**

**print("It is Normal weather.");**

**}**

**else if(temperature>=30 && temperature<40){**

**print("It is Hot weather.");**

**}**

**else if(temperature>=40){**

**print("It is Very Hot weather.");**

**}**

**}**

**Q.6: Write a program to check whether an alphabet is a vowel or consonant.**

**void main() {**

**String alphabet = "Z";**

**if(alphabet=="a"||alphabet=="e"||alphabet=="i"||alphabet=="o"||alphabet=="u"||alphabet=="A"||alphabet=="E"||alphabet=="I"||alphabet=="O"||alphabet=="U"){**

**print("The Alphabet you write '${alphabet}' is Vowel.");**

**}**

**else{**

**print("The alphbet you write '${alphabet} 'is Consonent.");**

**}**

**}**

**Q7: Write a program to calculate root of any number. i.e: √y = y½.**

**import 'dart:math';**

**void main() {**

**num number = 9;**

**num squareRoot = sqrt(number);**

**print("The square root of $number is: $squareRoot");**

**}**

**Q8: Create a marksheet using operators of at least 5 subjects and output should have Student Name, Student Roll Number, Class, Percentage, Grade Obtained etc. i.e: Percentage should be rounded upto 2 decimal places only**

**void main() {**

**num english = 80;**

**num maths = 89;**

**num science = 98;**

**num urdu = 79;**

**num islamiat = 90;**

**String studentName = "Noman Ahmed";**

**String studentRollnumber = "34";**

**String className = "6th";**

**num obtainNumber = english+maths+science+urdu+islamiat;**

**double percentage = (obtainNumber\*100)/500;**

**if(percentage>100){**

**print("Invalid, It is not possible.");**

**}**

**else if(percentage<=100 && percentage>90){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : A+");**

**}**

**else if(percentage<=90 && percentage>80){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : A");**

**}**

**else if(percentage<=90 && percentage>80){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : B");**

**}**

**else if(percentage<=80 && percentage>70){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : C");**

**}**

**else if(percentage<=70 && percentage>60){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : D");**

**}**

**else if(percentage<=60 && percentage>50){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : E");**

**}**

**else if(percentage<=50){**

**print("Name of the Student : ${studentName}");**

**print("Roll Number of the Student : ${studentRollnumber}");**

**print("Class of the Student : ${className}");**

**print("Percentage of the Student : ${percentage.toStringAsFixed(2)}");**

**print("Grade gain by the Student : F");**

**}**

**}**

**Q9: Check if the number is even or odd, If number is even then check if this is divisible by 5 or not & if number is odd then check if this is divisible by 7 or not.**

**void main() {**

**int number = 49;**

**if(number%2==0){**

**if(number%5==0){**

**print("${number} is Even and also divide by 5.");**

**}**

**else {**

**print("${number} is Even.");**

**}**

**}**

**else{**

**if(number%7==0){**

**print("${number} is odd and also divide by 7.");**

**}**

**else {**

**print("${number} is Odd.");**

**}**

**}**

**}**

**Q10: Write a program that takes three numbers from the user and prints the greatest number & lowest number**

**import 'dart:io';**

**void main() {**

**stdout.write("Enter a number: ");**

**String num1 = stdin.readLineSync()!;**

**stdout.write("Enter a number: ");**

**String num2 = stdin.readLineSync()!;**

**stdout.write("Enter a number: ");**

**String num3 = stdin.readLineSync()!;**

**double number1 = double.parse(num1);**

**double number2 = double.parse(num2);**

**double number3 = double.parse(num3);**

**if (number1 > number2 && number1 > number3 ) {**

**print(" The greatset Number:$number1");**

**}**

**else if(number2 > number1 && number2 > number3) {**

**print(" The greatset Number:$number2");**

**}**

**else if(number3 > number1 && number3 > number2) {**

**print(" The greatset Number:$number3");**

**}**

**if (number1 < number2 && number1 < number3 ) {**

**print(" The Lowert Number:$number1");**

**}**

**else if(number2 < number1 && number2 < number3) {**

**print(" The Lowest Number:$number2");**

**}**

**else if(number3 < number1 && number3 < number2) {**

**print(" The lowest Number:$number3");**

**}**

**}**