



ASSIGNMENT No: 1

COURSE : FLUTTER

SUBMITTED TO: Sir Bilal Rehman

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ASSIGNMENT SOLUTION CODE

```
import 'dart:io';
import 'dart:math';

void main(){
// Question 1

    int length = 5;
    int breadth = 6;

    if( length == breadth){
        print("It's a Square");
    }
    else{
        print("It's a Rectangle");
    }

// Question 2

    num age1 = 15;
    num age2 = 17;

    if(age1 > age2){
        print("Person 1 is Oldest");
        print("Person 2 is Youngest");
    }
    else if(age1 < age2){
        print("Person 2 is Oldest");
        print("Person 1 is Oldest");
    }
    else{
        print("Both have same age");
    }

// Question 3
    int class_total = 16;
    int class_attended = 10;
    num attendance_percent = (class_attended/class_total) * 100;

    print("$attendance_percent %");
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if(attendance_percent >= 75){
    print("He/She is allowed to sit in the exams");
}
else{
    print("He/She is not allowed to sit in the exams");
}

// Question 4

int year = 2023;

if (year % 4 == 0){
    print("$year is a leap year");
}
else{
    print("$year is not a leap year");
}

// Question 5
num temp = 42;
if (temp < 0){
    print("Freezing Weather");
}
else if( temp > 0 && temp < 10){
    print("Very Cold Weather");
}
else if( temp >= 10 && temp < 20){
    print(" Cold Weather");
}
else if( temp >= 20 && temp < 30){
    print("Normal In Temp");
}
else if( temp >= 30 && temp < 40){
    print("It's Hot");
}
else{
    print("It's Very hOT");
}

// Question 6

String alpha = 'e';

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if( alpha == 'a' || alpha == 'A' || alpha == 'e' || alpha == 'E' || alpha == 'i'
|| alpha == 'I' || alpha == 'o' || alpha == 'O' || alpha == 'u' || alpha == 'U'){
    print("$alpha is a vowel");
}
else{
    print("$alpha is a consonant");
}

// Question 7

stdout.write("Enter Customer ID: ");
String customer_id = stdin.readLineSync()!;

stdout.write("Enter Customer Name: ");
int customer_name = int.parse(stdin.readLineSync()!);

stdout.write("Enter no. of units used: ");
num units_used= int.parse(stdin.readLineSync()!);

num charges;
if(units_used < 200){
    charges = 1.20;
}
else if(units_used >=200 && units_used < 400){
    charges = 1.50;
}
else if(units_used >=400 && units_used < 600){
    charges = 1.80;
}
else{
    charges = 2.00;
}

num bill = units_used * charges;

// Output
print("\n|----- ELECTRICITY BILL -----|\n");
print("Customer IDNO: $customer_id");
print("Customer Name: $customer_name");
print("Unit Consumed: $units_used");
print("Amount Charges @Rs. $charges per unit : $bill");
print("Net Bill Amount : $bill");

```

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// Question 8

// Get student details
stdout.write("Enter student name: ");
String name = stdin.readLineSync()!;

stdout.write("Enter roll number: ");
int rollNumber = int.parse(stdin.readLineSync()!);

stdout.write("Enter class: ");
String className = stdin.readLineSync()!;

// Get marks for 5 subjects
stdout.write("Enter marks for Subject 1: ");
int subject1 = int.parse(stdin.readLineSync()!);

stdout.write("Enter marks for Subject 2: ");
int subject2 = int.parse(stdin.readLineSync()!);

stdout.write("Enter marks for Subject 3: ");
int subject3 = int.parse(stdin.readLineSync()!);

stdout.write("Enter marks for Subject 4: ");
int subject4 = int.parse(stdin.readLineSync()!);

stdout.write("Enter marks for Subject 5: ");
int subject5 = int.parse(stdin.readLineSync()!);

// Calculate total marks and percentage
int totalMarks = subject1 + subject2 + subject3 + subject4 + subject5;
double percentage = (totalMarks / 500) * 100;

// Determine grade based on percentage
String grade;
if (percentage >= 90) {
    grade = "A+";
} else if (percentage >= 80) {
    grade = "A";
} else if (percentage >= 70) {
    grade = "B";
} else if (percentage >= 60) {
    grade = "C";
} else if (percentage >= 50) {
    grade = "D";
} else {

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        grade = "Fail";
    }

    // Print marksheet
    print("\n|----- MARKSHEET-----|\n");
    print("Student Name: $name");
    print("Roll Number: $rollNumber");
    print("Class: $className");
    print("Total Marks: $totalMarks");
    print("Percentage: ${percentage.toStringAsFixed(2)}%");
    print("Grade Obtained: $grade");

// Question 9

int number = 4;
if(number % 2 == 0){
    print("$number is an even number and");
    if(number % 5 == 0 ){
        print("$number is divisible by 5");
    }
    else{
        print("$number is not divisible by 5");
    }
}
else{
    print("$number is odd number and");
    if(number % 7 == 0 ){
        print("$number is divisible by 7");
    }
    else{
        print("$number is not divisible by 7");
    }
}

// Question 10

stdout.write("Enter first number : ");
num num1 = int.parse(stdin.readLineSync());

stdout.write("Enter first number : ");
num num2 = int.parse(stdin.readLineSync());

stdout.write("Enter first number : ");
num num3 = int.parse(stdin.readLineSync());

```

```

num greatest;
num lowest;

if(num1 > num2 && num1 > num3){
    greatest = num1;
    if(num2 > num3){
        lowest = num3;
    }
    else{
        lowest = num2;
    }
}
else if(num2 > num1 && num2 > num3){
    greatest = num2;
    if(num1 > num3){
        lowest = num3;
    }
    else{
        lowest = num1;
    }
}
else{
    greatest = num3;
    if(num1 > num2){
        lowest = num2;
    }
    else{
        lowest = num1;
    }
}

print("Greatest = $greatest \nLowest = $lowest");

// Question 11

num x = 16;
num root = pow(x, 1/2);
print("Root of $x is $root");

// Question 12

num centigrade = 35.5;
num fahrenheit = (centigrade * (9/5)) + 32;

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print("Centigrade = $centigrade \nFahrenheit = $fahrenheit");  
}
```