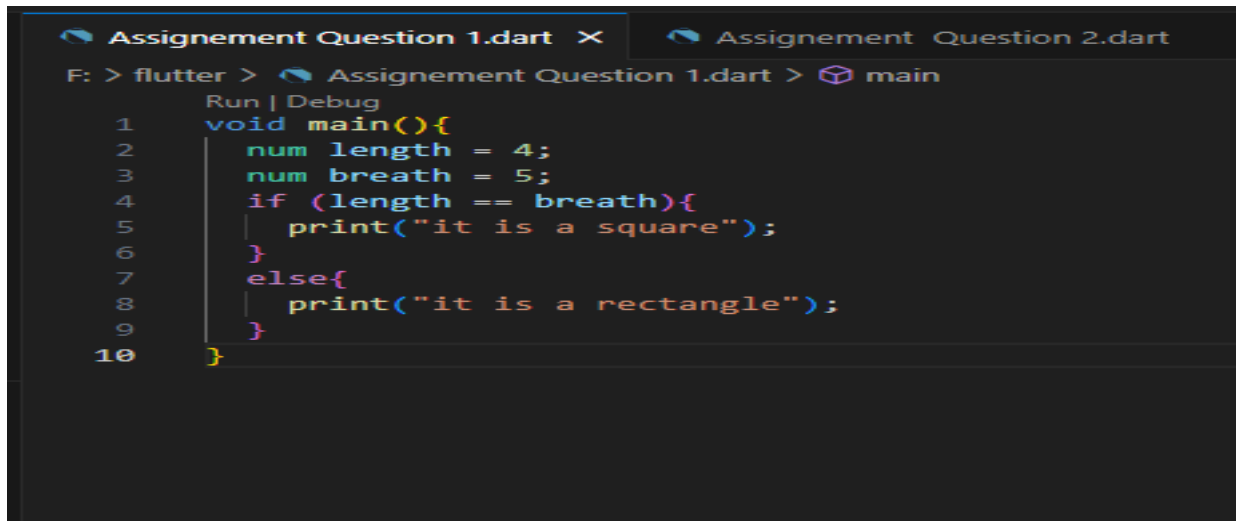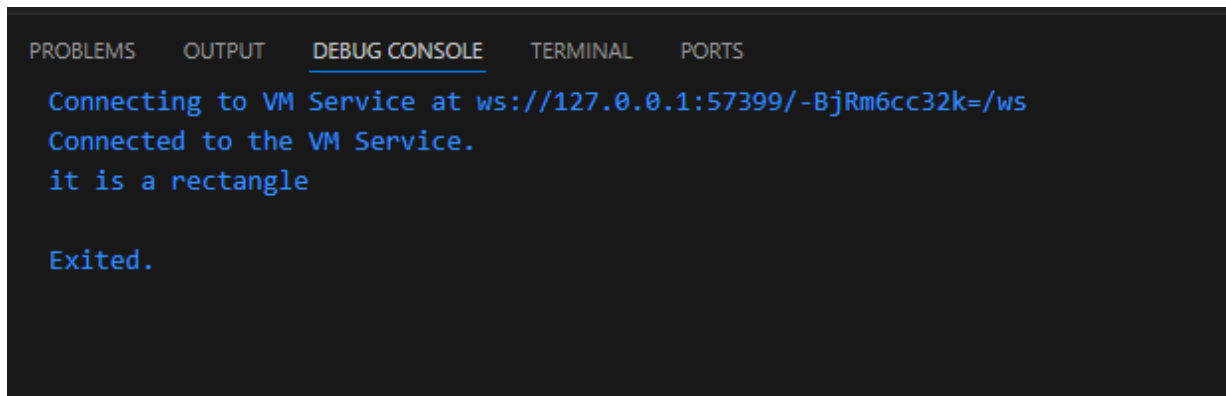# Assignment

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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.

```dart
void main(){
  num length = 4;
  num breath = 5;
  if (length == breath){
    print("it is a square");
  }
  else{
    print("it is a rectangle");
  }
}
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

 Connecting to VM Service at ws://127.0.0.1:57399/-BjRm6cc32k=/ws
 Connected to the VM Service.
 it is a rectangle

 Exited.
```

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

```dart
Run | Debug
1   void main(){
2     num FirstPersonAge = 40;
3     num SecondPersonAge = 30;
4     if (FirstPersonAge>SecondPersonAge){
5       print("First Person is older than Second Person");
6     }
7     else if(FirstPersonAge<SecondPersonAge){
8       print("First Person is younger than Second Person");
9     }
10    else {
11      print("both are of same age");
12    }
13  }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

Connecting to VM Service at ws://127.0.0.1:57409/ED1RUB7vXCI=/ws
Connected to the VM Service.
First Person is older than Second Person

Exited.

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?

```
F: > flutter > ◈ Assignement Question 3.dart > ❂ main
     Run | Debug
1    void main(){
2        double classesHeld = 16;
3        double classeAttended = 10;
4        num percentage = (classeAttended*100)/classesHeld;
5        print("Percentage of class attended is $percentage %");
6        if(percentage<75){
7          print("You are not allowed to Sit in");
8        }
9        else{
10         print("you are allowed to sit");
11        }
12   }
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

 Connecting to VM Service at ws://127.0.0.1:57427/ut6Lt-bRXJ4=/ws
 Connected to the VM Service.
 Percentage of class attended is 62.5 %
 You are not allowed to Sit in

 Exited.
```

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

F: > flutter > ● Assignement Question 4.dart > ◎ main

```dart
Run | Debug
1    void main(){
2        num temperatureCelsious = 30;
3        num temperatureFahrenheit = ((temperatureCelsious * 9/5) + 32);
4        print("temperature in Fahrenheit is $temperatureFahrenheit");
5    }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

Connecting to VM Service at ws://127.0.0.1:57451/2YplUu2K_Ec=/ws
Connected to the VM Service.
temperature in Fahrenheit is 86.0

Exited.

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

Assignment Question 5.dart ×   Assignement Question 6.dart   Assignment Q

F: > flutter > 🅢 Assignment Question 5.dart > ⦿ main

```dart
Run | Debug
1    void main(){
2      num temperature = 42;
3      if (temperature<0){
4        print("Freezing Weather");
5      }
6      else if (temperature>=0 && temperature<10){
7        print("Very Cold Weather");
8      }
9      else if (temperature>=10 && temperature<20){
10       print("Cold Weather");
11     }
12     else if (temperature>=20 && temperature<30){
13       print("Normal in Temperature");
14     }
15     else if (temperature>=30 && temperature<40){
16       print("It's Hot");
17     }
18     else{
19       print("It's very Hot");
20     }
21   }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

Connecting to VM Service at ws://127.0.0.1:57464/79xYSG5H0o8=/ws
Connected to the VM Service.
It's very Hot

Exited.

>

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

```dart
F: > flutter > ⟍ Assignement Question 6.dart > ⊘ main
     Run | Debug
1    void main(){
2      String alphabet = "a";
3      if(alphabet == "a" || alphabet == "u" || alphabet == "o" || alphabet == "i" || alphabet == "e" ){
4        print("Alphabet is vowel");
5      }
6      else{
7        print("Alphabet is consonant");
8      }
9    }
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

 Connecting to VM Service at ws://127.0.0.1:57477/8abTL2vAvBQ=/ws
 Connected to the VM Service.
 Alphabet is vowel


 Exited.
```
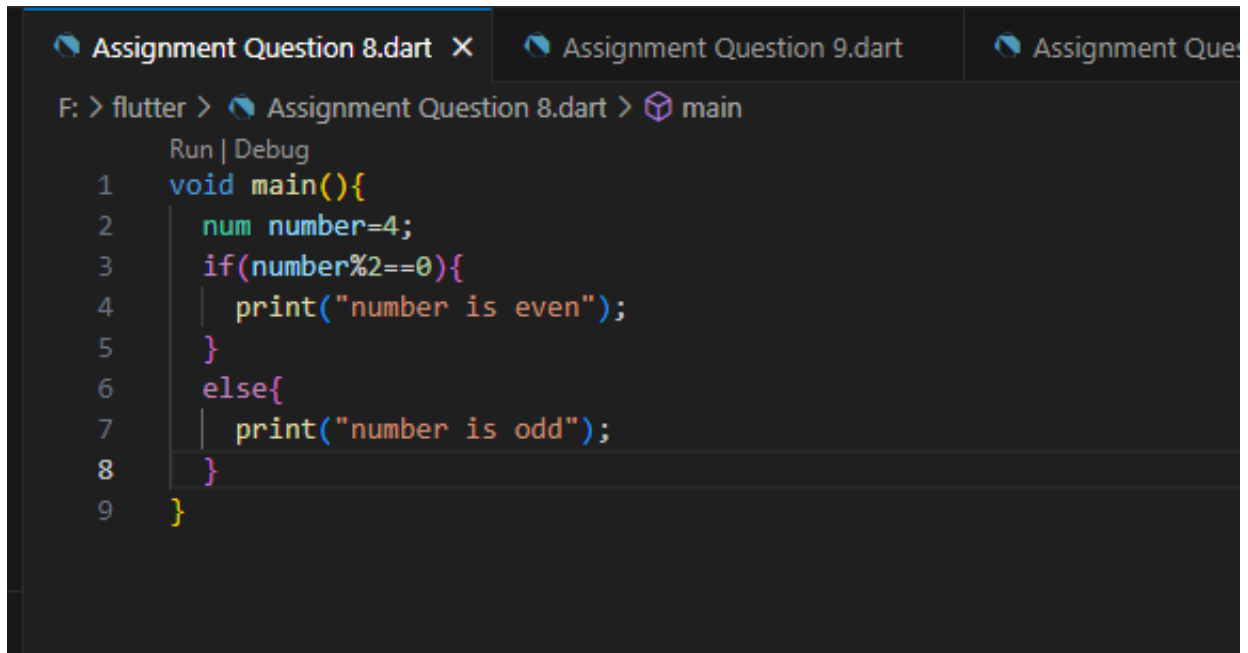
Q7: Create a marksheet using operators of at least 5 subjects and output should have Student Name, Student Roll Number, Class, Percentage, Grade Obtained etc. i.e: Percentage should be rounded upto 2 decimal places only.

```dart
Run | Debug
1    void main(){
2      String studentName = "osama anwer";
3      int studentRollNumber = 341696;
4      String studentClass = "flutter";
5      num urdu = 60;
6      num english = 80;
7      num math = 65;
8      num physics = 59;
9      num chemistry = 75;
10     num totalMarks = 500;
11     num percentage = (urdu+english+math+physics+chemistry)*100/totalMarks;
12     print(studentName);
13     print(studentRollNumber);
14     print(studentClass);
15     print(percentage);
16       if(percentage>=50 && percentage<60){
17       print("your Grade is C");
18     }
19     else if(percentage>=60 && percentage<70){
20       print("Your Grade is B");
21     }
22     else if (percentage>=70 && percentage <80){
23       print("your Grade is A");
24     }
25     else if(percentage>=80 && percentage <=100){
26       print("Your Grade is A+");
27     }
28     else{
29       print("Your grade is F");
30     }
31   }
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

 Connecting to VM Service at ws://127.0.0.1:55684/m2Y8OexSgns=/ws
 Connected to the VM Service.
 osama anwer
 341696
 flutter
 67.8
 Your Grade is B

 Exited.
```
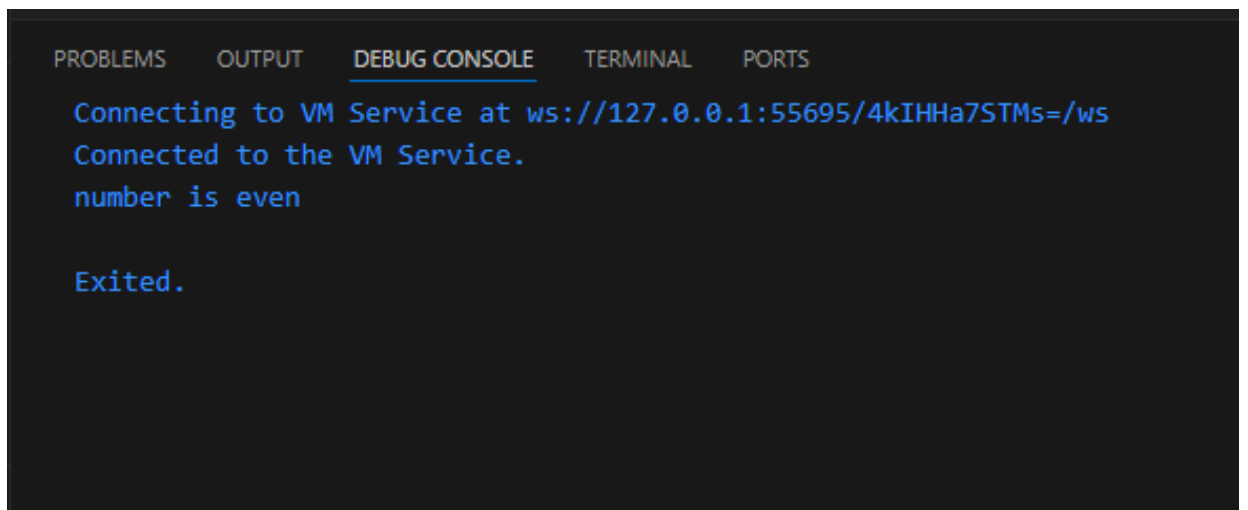
Q8: Check if the number is even or odd? i.e : Even numbers are completely divisible by 2. (2,4,6,8,10,....)

Assignment Question 8.dart ✕   Assignment Question 9.dart   Assignment Que

F: > flutter > Assignment Question 8.dart > main

```dart
Run | Debug
1    void main(){
2      num number=4;
3      if(number%2==0){
4        print("number is even");
5      }
6      else{
7        print("number is odd");
8      }
9    }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

Connecting to VM Service at ws://127.0.0.1:55695/4kIHHa7STMs=/ws
Connected to the VM Service.
number is even

Exited.

Q9: Check if a number is even then check if its divisible by 5 or not & if a number is odd then check if its divisible by 7 or not.

```dart
void main(){
  num number=4;
  if(number%2==0){
    print("number is even");
    if(number%5==0){
      print("and number is divisible by 5");
    }
    else{
      print("and number is not divisible by 5");
    }
  }
  else{
    print("number is odd");
    if(number%7==0){
      print("and number is divisible by 7");
    }
    else{
      print("and number is not divisible by 7");
    }
  }
}
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   Filter (e.g. text, !exc

Connecting to VM Service at ws://127.0.0.1.55700/CIUDXVIKXJ8-/ws

Connected to the VM Service.
number is even
and number is not divisible by 5

Exited.

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

```dart
import 'dart:io';
Run | Debug
void main(){
print("Enter you first number");
int firstNumber = int.parse((stdin.readLineSync()!));
print("Enter you second number");
int secondNumber = int.parse((stdin.readLineSync()!));
print("Enter you third number");
int thirdNumber = int.parse((stdin.readLineSync()!));
if (firstNumber>secondNumber && firstNumber>secondNumber){
  print("$firstNumber is greatest");
  if(secondNumber<thirdNumber){
    print("$secondNumber is the lowest");
  }
  else {
    print("$thirdNumber is lowest");
  }
}
if (secondNumber>firstNumber && secondNumber>thirdNumber){
  print("$secondNumber is greatest");
  if(firstNumber<thirdNumber){
    print("$firstNumber is the lowest");
  }
  else {
    print("$thirdNumber is lowest");
  }
}
if (thirdNumber>firstNumber && thirdNumber>secondNumber){
  print("$thirdNumber is greatest");
  if(firstNumber<secondNumber){
    print("$firstNumber is the lowest");
  }
  else {
    print("$secondNumber is lowest");
  }
}
}
```

```
PS F:\flutter>
PS F:\flutter> dart "Assignment Question 10.dart"
Enter you first number
2
Enter you second number
3
Enter you third number
4
4 is greatest
4
4 is greatest
2 is the lowest
PS F:\flutter>
```