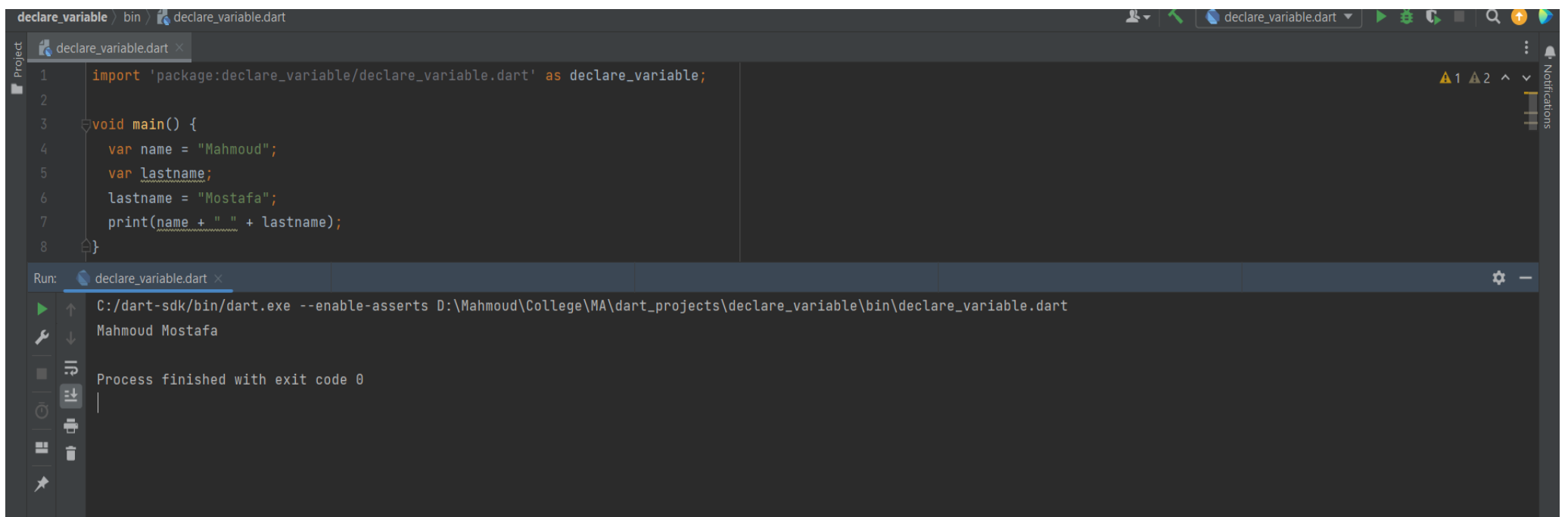# تطبيقي السكشن
مادة تطبيقات المحمول

الاسم : محمود مصطفي الشحات

القسم العلمي : حاسب الي

السكشن : 3
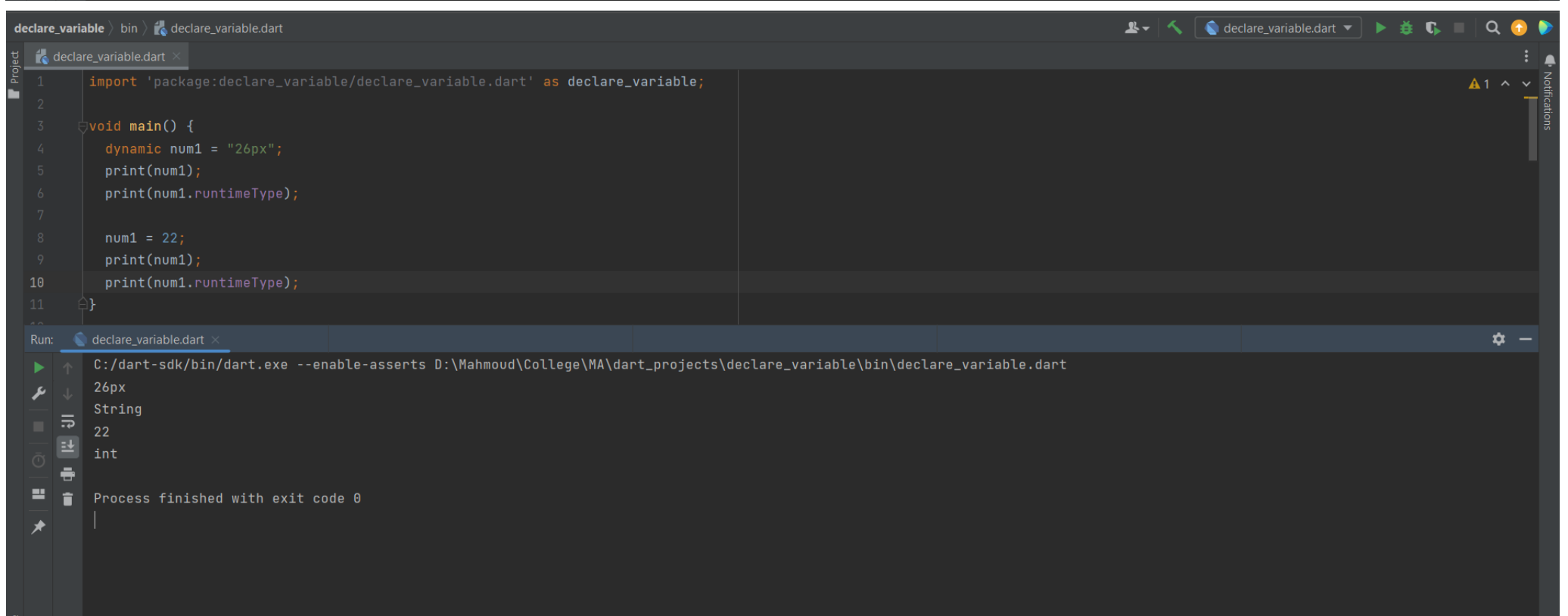


```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  var name = "Mahmoud";
  var lastname;
  lastname = "Mostafa";
  print(name + " " + lastname);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
Mahmoud Mostafa

Process finished with exit code 0
```



```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  dynamic num1 = "26px";
  print(num1);
  print(num1.runtimeType);

  num1 = 22;
  print(num1);
  print(num1.runtimeType);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
26px
String
22
int

Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  int x = 10;
  String str = "Dart";

  print(x);
  print(str);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
10
Dart

Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  int num1 = 43;
  double num2 = 11;
  num num3 = 39;
  num num4 = 11.1;
  num sum = num1 + num2 + num3 + num4;

  print("Num1 is $num1");
  print("Num2 is $num2");
  print("Num3 is $num3");
  print("Num4 is $num4");
  print("Sum is $sum");
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
Num1 is 43
Num2 is 11.0
Num3 is 39
Num4 is 11.1
Sum is 104.1

Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  String name = 'Mahmoud Mostafa';
  String adress = 'Mit Assas';

  print("My name is $name and I live in $adress");
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
My name is Mahmoud Mostafa and I live in Mit Assas

Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  String multiLineText = """
  This is multi Line Text
  with 3 single quote
  I am also writing here
  """;

  String otherMultiLineText = '''
  This is multi Line Text
  with 3 single quote
  I am also writing here
  ''';

  print(multiLineText);
  print(otherMultiLineText);
}
```

Run: declare_variable.dart

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
  This is multi Line Text
  with 3 single quote
  I am also writing here

  This is multi Line Text
  with 3 single quote
  I am also writing here


Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  print("I am from \n Egypt");
  print("I am from \t Egypt");

  print('-----------------------------');

  bool isMarried = false;
  print("Married status: $isMarried");
}
```

Run: declare_variable.dart

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
I am from
 Egypt
I am from     Egypt
-----------------------------
Married status: false


Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  List fruits = ['Apple', 'Banana', 'Orange'];
  print('Value of fruits is $fruits');
  print('Value of fruits[0] is ${fruits[0]}');
  print('Value of fruits[1] is ${fruits[1]}');
  print('Value of fruits[2] is ${fruits[2]}');
  print('The length of fruits is ${fruits.length}');
}
```

Run: declare_variable.dart

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
Value of fruits is [Apple, Banana, Orange]
Value of fruits[0] is Apple
Value of fruits[1] is Banana
Value of fruits[2] is Orange
The length of fruits is 3


Process finished with exit code 0
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  Map myDetails = {
    'name' : 'Mahmoud Mostafa',
    'phone' : '01018672627',
    'gmail' : 'melshahat799@gmail.com',
    'adress' : 'Mit Assas',
  };

  print(myDetails['name']);
  print(myDetails['phone']);
  print(myDetails['gmail']);
  print(myDetails['adress']);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
Mahmoud Mostafa
01018672627
melshahat799@gmail.com
Mit Assas

Process finished with exit code 0
```

```dart
void main() {
  var a = -2;
  print (a.abs ());
  var b = 2.4;
  print ("The ceiling value of 2.4 = ${b.ceil() }");
  var c = 2.9;
  print ("The floor value of 2.9 = ${c.floor()}");
  var d= 2.4;
  print (d.compareTo (12));
  print (d.compareTo (2.4));
  print (d.compareTo (0));
  var e = 10;
  var f = 17;
  print (e.remainder (2));
  print (f.remainder (2));
  double n1 = 12.023;
  double n2 = 12.89;
  var value1 = n1.round();
  print(value1);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
2
The ceiling value of 2.4 = 3
The floor value of 2.9 = 2
-1
0
1
0
1
12
```

```dart
import 'package:declare_variable/declare_variable.dart' as declare_variable;

void main() {
  int one = 22;
  print("Type of one is ${one.runtimeType}");
  String oneInString = one.toString();
  print("Value of oneInString is $oneInString");
  print("Type of oneInString is ${oneInString.runtimeType}");
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\declare_variable\bin\declare_variable.dart
Type of one is int
Value of oneInString is 22
Type of oneInString is String

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int n1 = 22;
  var value = n1.toDouble();
  print("Output = ${value}");
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
Output = 22.0

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  double n1 = 22.11;
  var value = n1.toInt();
  print("Output = ${value}");
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
Output = 22

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int n1 = 2;
  var value = n1.toString();
  print(value is String);
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
true

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  double nl = 2.123;
  var value = nl.truncate();
  print("The truncated value of 2.123 = ${value}");
}
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int a = 2;
  int b = 3;
  // Adding a and b
  var c=a+b;
  print("Sum of a and b is $c");
  // Subtracting a and b
  var d=a - b;
  print("The difference between a and b is $d");
  // Using unary minus
  var e=a-d;
  print("The negation of difference between a and b is $e");
  // Multiplication of a and b
  var f = a*b;
  print("The product of a and b is $f");
  // Division of a and b
  var g=b/a;
  print("The quotient of a and b is $g");
  // Using ~/ to divide a and b
  var h=b~/a;
  print("The quotient of a and b is $h");
  // Remainder of a and b
  var i = b%a;
  print("The remainder of a and b is $i");
}
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int userId = 123;
  int userPin = 456;
  // Printing Info
  print((userId == 123) && (userPin == 456));
  print((userId == 1213) && (userPin == 456));
  print((userId == 123) || (userPin == 456));
  print((userId == 1213) || (userPin == 456));
  print((userId == 123) != (userPin == 456));
}
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int a = 2;
  int b = 3;
  // Greater between a and b
  var c = a>b;
  print("a is greater than b is $c");
  // Smaller between a and b
  var d = a < b;
  print("a is smaller than b is $d");
  // Greater than or equal to between a and b
  var e = a >= b;
  print("a is greater than b is $e");
  // Less than or equal to between a and b
  var f = a <= b;
  print("a is smaller than b is $f");
  // Equality between a and b
  var g = b == a;
    print("a and b are equal is $g");
  // Unequality between a and b
  var h = b != a;
  print("a and b are not equal is $h");
}
```

```
Run:     convert_type.dart
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
a is greater than b is false
a is smaller than b is true
a is greater than b is false
a is smaller than b is true
a and b are equal is false
a and b are not equal is true

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  var num = 10;
  print(num is String);
  print(num is ! String);
}
```

```
Run:     convert_type.dart
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
false
true

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int num = 10;
  if (num > 3) {
    // This will be printed
    print("Condition is true");
  }
}
```

```
Run:     convert_type.dart
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
Condition is true

Process finished with exit code 0
```

```dart
void main() {
  int noOfMonth= 5;
  // Check the no of month
  if (noOfMonth == 1) {
    print("The month is jan");
  } else if (noOfMonth == 2) {
    print("The month is feb");
  } else if (noOfMonth == 3) {
    print("The month is march");
  } else if (noOfMonth == 4) {
    print("The month is april");
  } else if (noOfMonth == 5) {
    print("The month is may");
  } else if (noOfMonth == 6) {
    print("The month is june");
  } else if (noOfMonth == 7) {
    print("The month is july");
  } else if (noOfMonth == 8) {
    print("The month is aug");
  } else if (noOfMonth == 9) {
    print("The month is sep");
  } else if (noOfMonth == 10) {
    print("The month is oct");
  } else if (noOfMonth == 11) {
    print("The month is nov");
  } else if (noOfMonth == 12) {
    print("The month is dec");
  } else {
    print("Invalid option given.");
  }
}
```

Run: convert_type.dart
```
C:/dart-sdk/bin/dart.exe --enable-asserts
 D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
The month is may

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  int num1 = 1200;
  int num2 = 1000;
  int num3 = 150;

  if (num1 > num2 && num1 > num3) {
    print("Num 1 is greater: i.e $num1");
  }
  if (num2 > num1 && num2 > num3) {
    print("Num2 is greater: i.e $num2");
  }
  if (num3 > num1 && num3 > num2) {
    print("Num3 is greater: i.e $num3");
  }
}
```

Run: convert_type.dart
```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
Num 1 is greater: i.e 1200

Process finished with exit code 0
```

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  var a = 100;
  var s = 200;
  /* check the boolean condition */
  if(a == 100) {
  /* if condition is true then check the following */
    if(s == 200) {
  /* if condition is true then print the following */ print("Value of a is 100 and s is 200\n");
    }
  }
}
```

Run: convert_type.dart
```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
Value of a is 100 and s is 200

Process finished with exit code 0
```
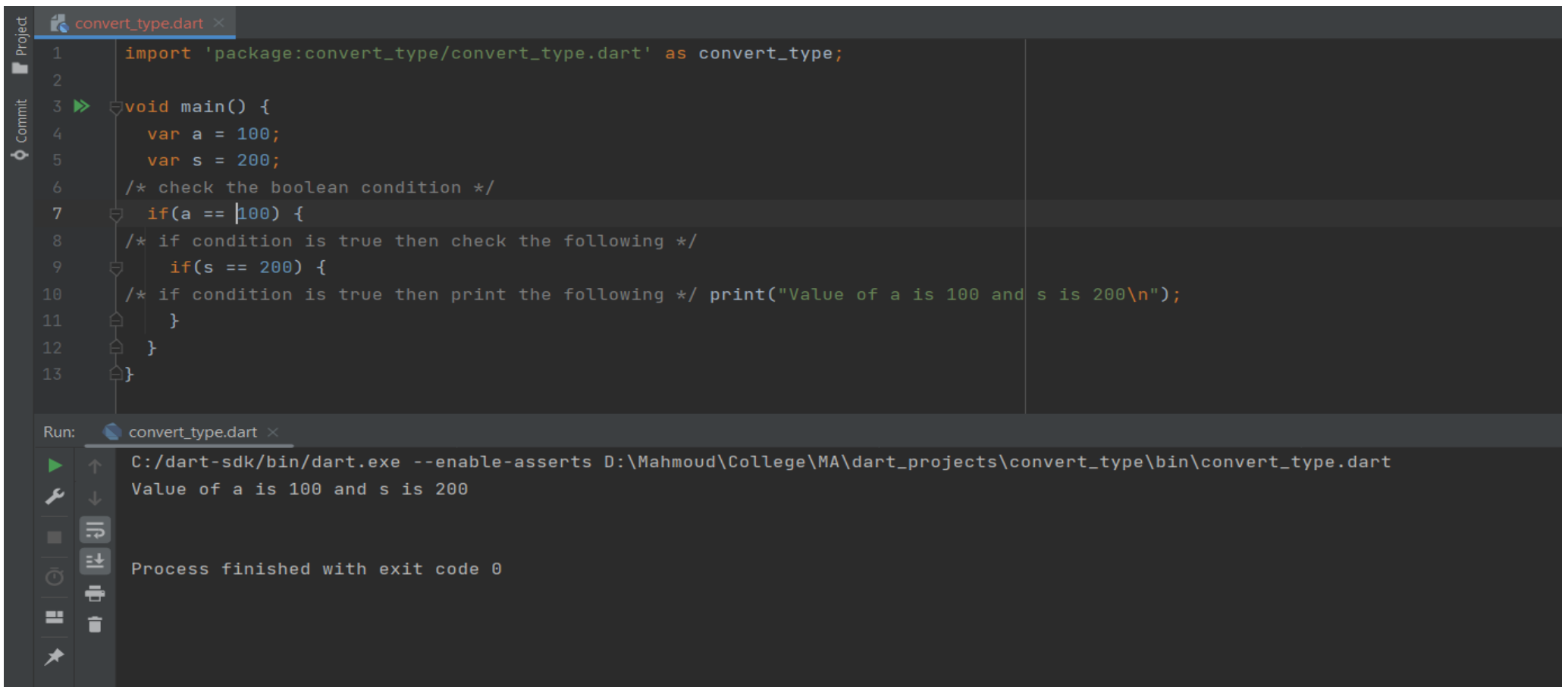
```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  var dayOfWeek = 5;
  switch (dayOfWeek) {
    case 1:
      print("Day is Sunday.");
      break;
    case 2:
      print("Day is Monday.");
      break;
    case 3:
      print("Day is Tuesday.");
      break;
    case 4:
      print("Day is Wednesday.");
      break;
    case 5:
      print("Day is Thursday.");
      break;
    case 6:
      print("Day is Friday.");
      break;
    case 7:
      print("Day is Saturday.");
      break;
    default:
      print("Invalid Weekday.");
      break;
  }
}
```
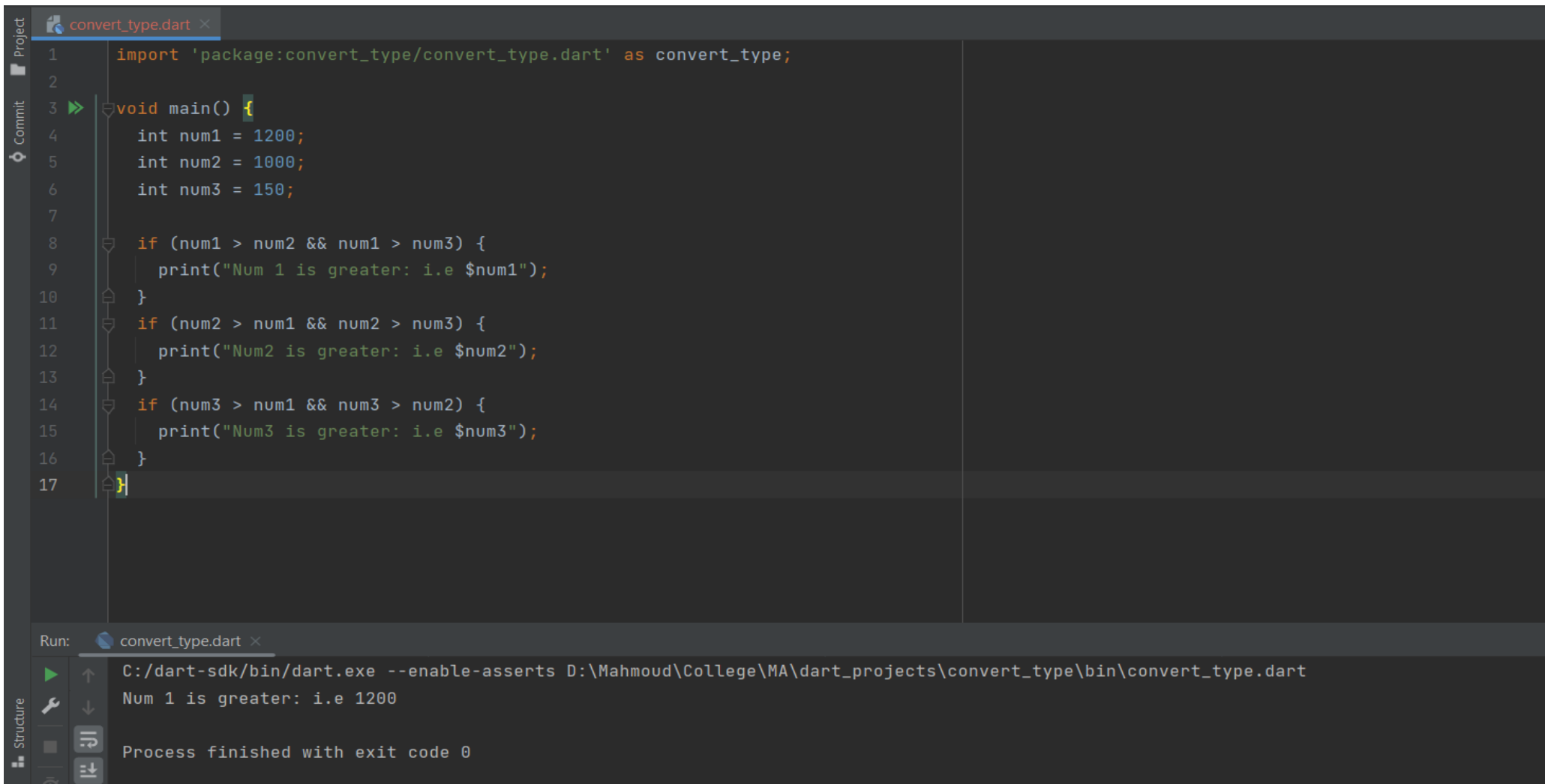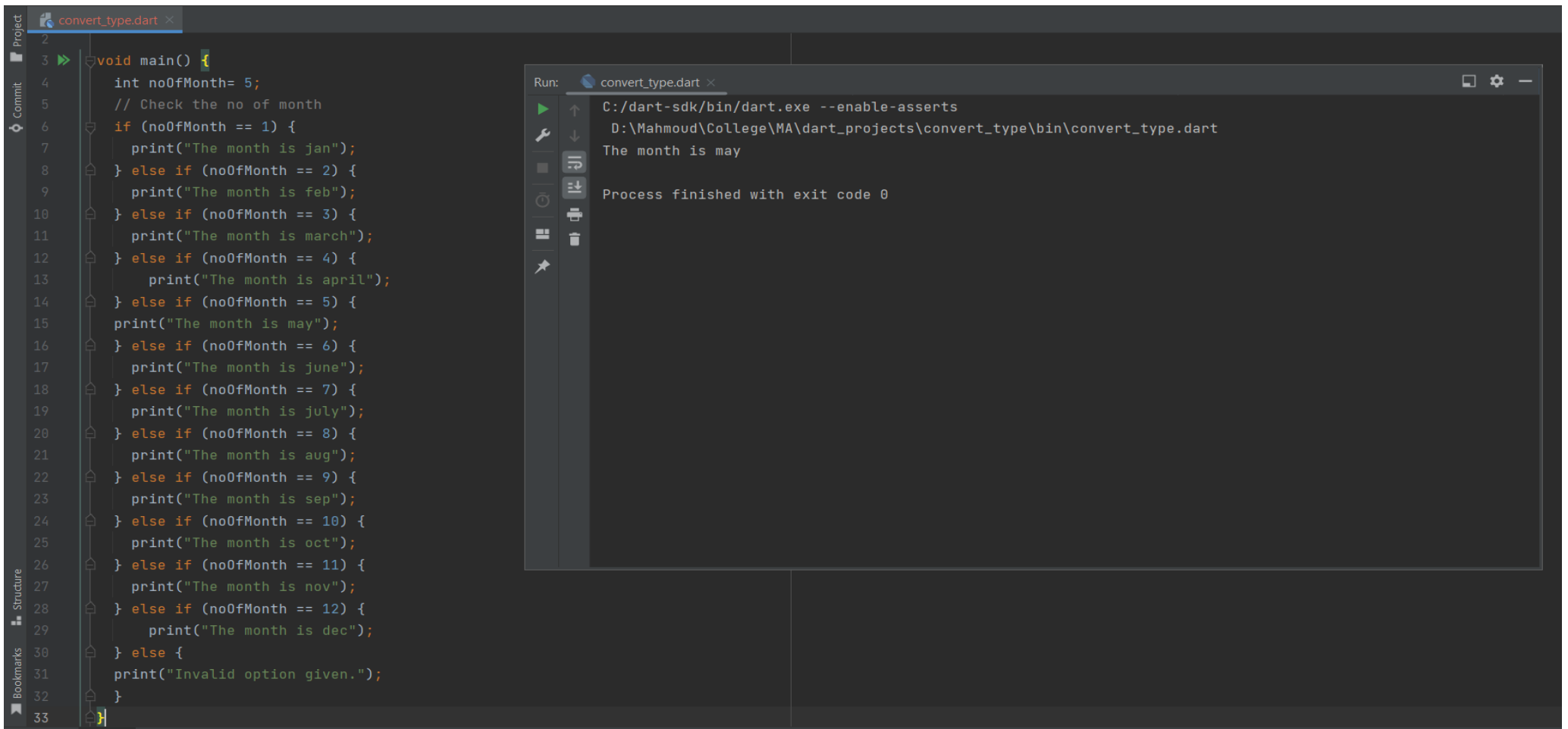
```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type
Day is Thursday.

Process finished with exit code 0
```

Visual layout of bidirectional text can depend on the base direction (View | Bidi Text Base Direction)   Choose direction   Hide noti

```dart
void main() {
  print('Enter X : ');
  var X_string=stdin.readLineSync();
  print('Enter Y : ');
  var Y_string = stdin.readLineSync();
  print('Enter Operation');
  var Operation = stdin.readLineSync();
  int x = int.parse(X_string!);
  int y = int.parse(Y_string!);
  switch (Operation) {
    case '+':
      print (x+y);
      break;
    case '-':
      print(x-y);
      break;
    case '*':
      print(x*y);
      break;
    case '/':
      print(x/y);
      break;
    case '%':
      print(x%y);
      break;
    default:
      print('Input is wrong');
  }
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\con
Enter X :
22
Enter Y :
10
Enter Operation
*
220

Process finished with exit code 0
```

Visual layout of bidirectional text can depend on the base direction (View | Bidi Text Base Direction)   Choose direction   Hide notification   Don't show again

```dart
import 'package:convert_type/convert_type.dart' as convert_type;

void main() {
  var sumOdd=0;
  var sumEven=0;
  for (int x=20; x<51; x++) {
    if (x%2==0) {
      sumEven=sumEven+x;}
    else{
      sumOdd = sumOdd +x;
    }
  }
  print('sumOdd = $sumOdd');
  print('sumEven $sumEven');
}
```

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
sumOdd = 525
sumEven 560

Process finished with exit code 0
```

Visual layout of bidirectional text can depend on the base direction (View | Bidi Text Base Direction)

```dart
1    import 'package:convert_type/convert_type.dart' as convert_type;
2
3 ▶▶  void main() {
4      print("طباعة الاعداد الفردية من 1 الي 10.");
5      for (int i=1; i<=10; i+=2) {
6        print(i);
7      }
8
9      print("طباعة الاعداد الفردية من 5 الي 1.");
10     for (int i=5; i>=1; i--) {
11       print(i);
12     }
13   }
```

Run: 🌐 convert_type.dart ✕

```
C:/dart-sdk/bin/dart.exe --enable-asserts D:\Mahmoud\College\MA\dart_projects\convert_type\bin\convert_type.dart
طباعة الاعداد الفردية من 1 الي 10.
1
3
5
7
9
طباعة الاعداد الفردية من 5 الي 1.
5
4
3
2
1

Process finished with exit code 0
```