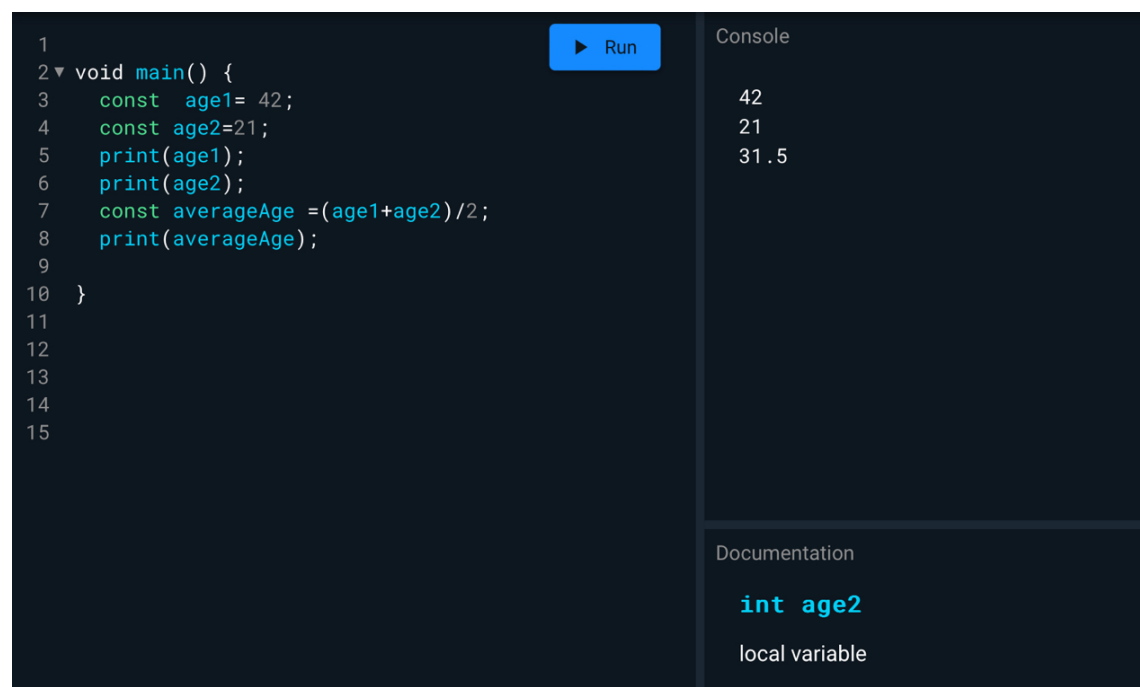


Exercises 1

1. Create a constant called `age1` and set it equal to 42. Create another constant called `age2` and set it equal to 21. Check that the type for both constants has been inferred correctly as `int` by hovering your mouse pointer over the variable names in VS Code.
2. Create a constant called `averageAge` and set it equal to the average of `age1` and `age2` using the operation $(age1 + age2) / 2$. Hover your mouse pointer over `averageAge` to check the type. Then check the result of `averageAge`. Why is it a double if the components are all `int`?

Because of the operation I did in `averageAge`



The screenshot shows a VS Code editor with a C program. The code defines two integer constants, `age1` (42) and `age2` (21), and calculates their average in `averageAge`. The program prints the values of `age1`, `age2`, and `averageAge`. The console output shows 42, 21, and 31.5. The documentation panel shows the type of `age2` as `int` and its scope as a local variable.

```
1
2 void main() {
3     const age1= 42;
4     const age2=21;
5     print(age1);
6     print(age2);
7     const averageAge =(age1+age2)/2;
8     print(averageAge);
9
10 }
11
12
13
14
15
```

Run

Console

```
42
21
31.5
```

Documentation

`int age2`
local variable

Exercises 2

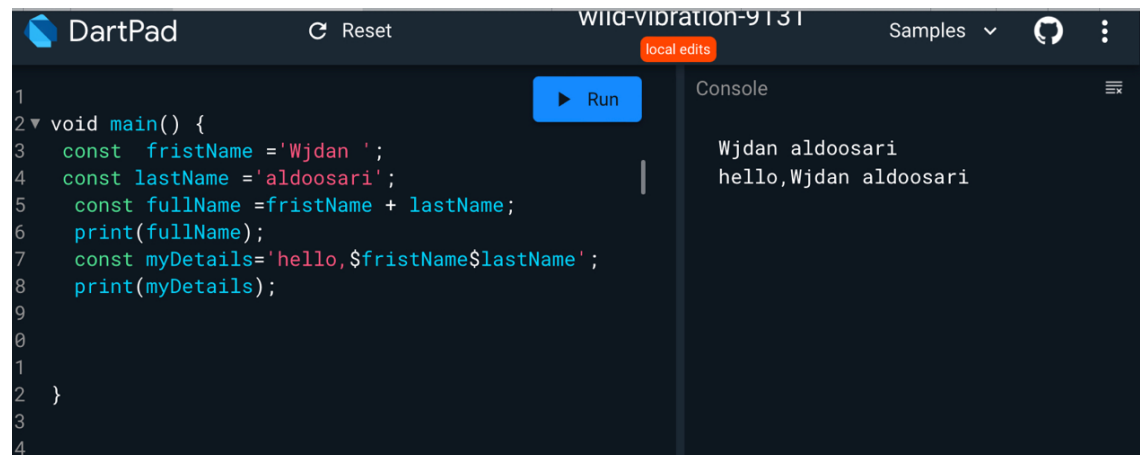
1. Create a string constant called `firstName` and initialize it to your first name.
Also create a string constant called `lastName` and initialize it to your last name.
2. Create a string constant called `fullName` by adding the `firstName` and `lastName`

constants together, separated by a space.

3. Using interpolation, create a string constant called `myDetails` that uses the

`fullName` constant to create a string introducing yourself. For example, Ray

Wenderlich's string would read: Hello, my name is Ray Wenderlich.



The screenshot shows the DartPad web editor interface. The top bar includes the DartPad logo, a 'Reset' button, the file name 'wild-vibration-9131', a 'local edits' indicator, and a 'Samples' dropdown menu. The main editor area displays the following Dart code:

```
1
2 void main() {
3   const firstName = 'Wjdan ';
4   const lastName = 'aldoosari';
5   const fullName = firstName + lastName;
6   print(fullName);
7   const myDetails = 'hello, $firstName$lastName';
8   print(myDetails);
9
10
11
12 }
13
14
```

A blue 'Run' button is located to the right of the code. The right-hand panel, titled 'Console', shows the output of the code:

```
Wjdan aldoosari
hello,Wjdan aldoosari
```

Exercises 3

1. Create a constant called `myAge` and set it to your age. Then, create a constant

named `isTeenager` that uses Boolean logic to determine if the age denotes someone in the age range of 13 to 19.

2. Create another constant named `maryAge` and set it to 30. Then, create a constant

named `bothTeenagers` that uses Boolean logic to determine if both you and

Mary are teenagers.

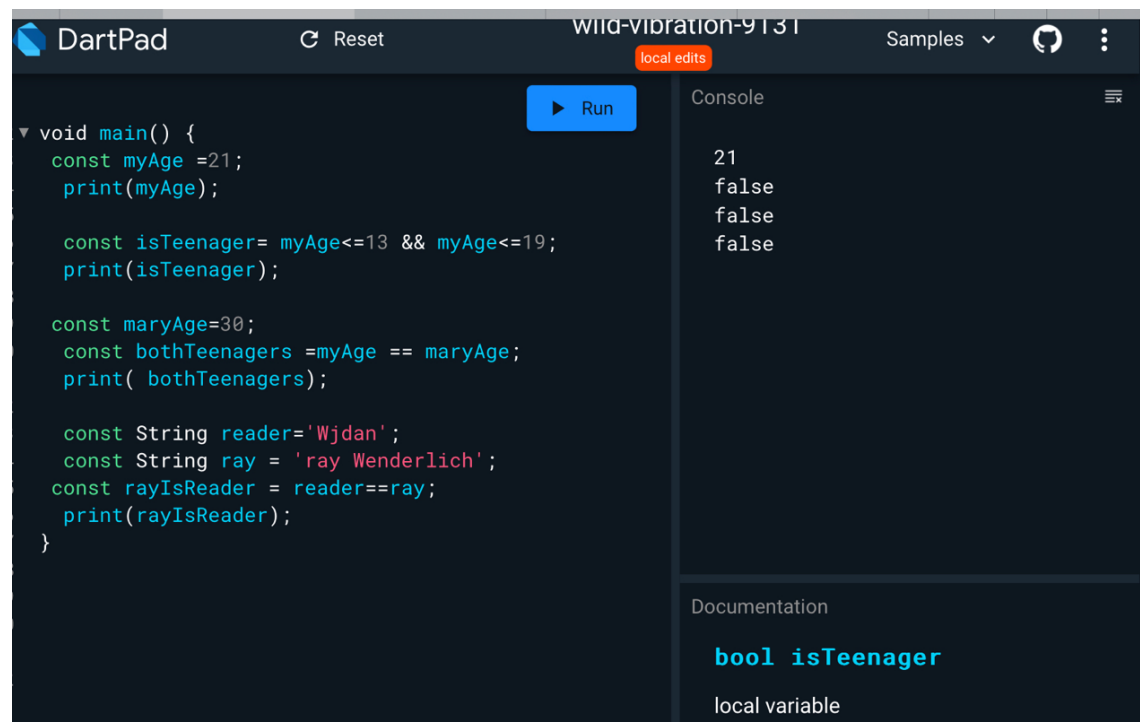
3. Create a String constant named `reader` and set it to your name. Create another

String constant named `ray` and set it to 'Ray Wenderlich'. Create a

Boolean

constant named `rayIsReader` that uses string equality to determine if `reader`

and `ray` are equal. Now that you understand Boolean logic, you're going to use that knowledge to make decisions in your code.



The screenshot shows the DartPad interface. The code editor on the left contains the following Dart code:

```
void main() {  
  const myAge = 21;  
  print(myAge);  
  
  const isTeenager = myAge <= 13 && myAge <= 19;  
  print(isTeenager);  
  
  const maryAge = 30;  
  const bothTeenagers = myAge == maryAge;  
  print(bothTeenagers);  
  
  const String reader = 'Wjdan';  
  const String ray = 'ray Wenderlich';  
  const rayIsReader = reader == ray;  
  print(rayIsReader);  
}
```

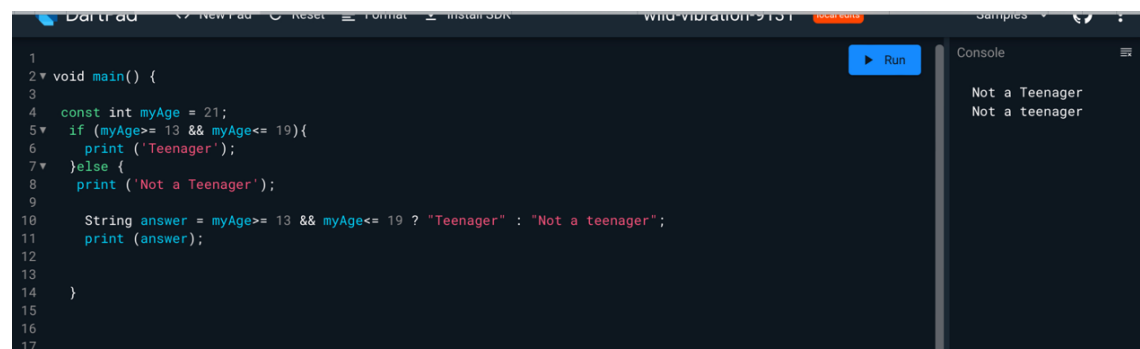
The console on the right shows the output of the code:

```
21  
false  
false  
false
```

Below the console, the documentation for the `bool isTeenager` local variable is shown.

Exercises 4

1. Create a constant named `myAge` and initialize it with your age. Write an if statement to print out “Teenager” if your age is between 13 and 19, and “Not a teenager” if your age is not between 13 and 19.
2. Use a ternary conditional operator to replace the else-if statement that you used above. Set the result to a variable named `answer`.



The screenshot shows the DartPad interface. The code editor on the left contains the following Dart code:

```
1 void main() {  
2   const int myAge = 21;  
3   if (myAge >= 13 && myAge <= 19) {  
4     print('Teenager');  
5   } else {  
6     print('Not a Teenager');  
7   }  
8   String answer = myAge >= 13 && myAge <= 19 ? "Teenager" : "Not a teenager";  
9   print(answer);  
10 }  
11  
12  
13  
14  
15  
16  
17
```

The console on the right shows the output of the code:

```
Not a Teenager  
Not a teenager
```

