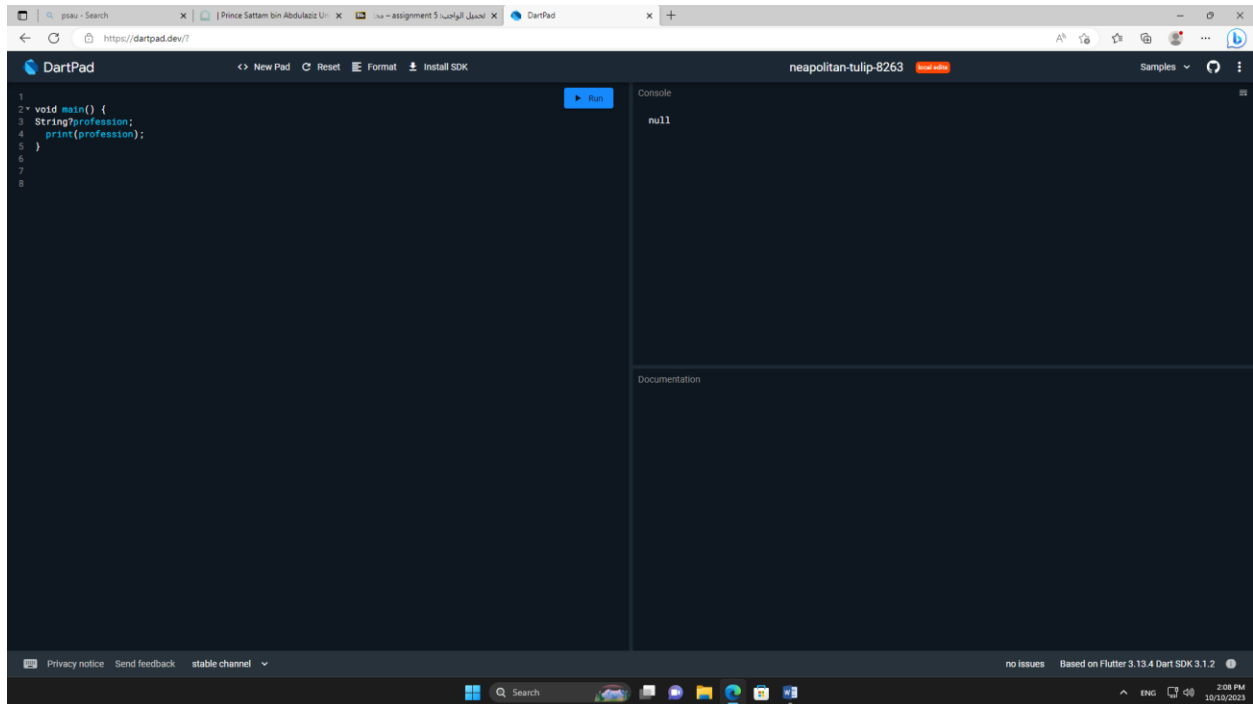


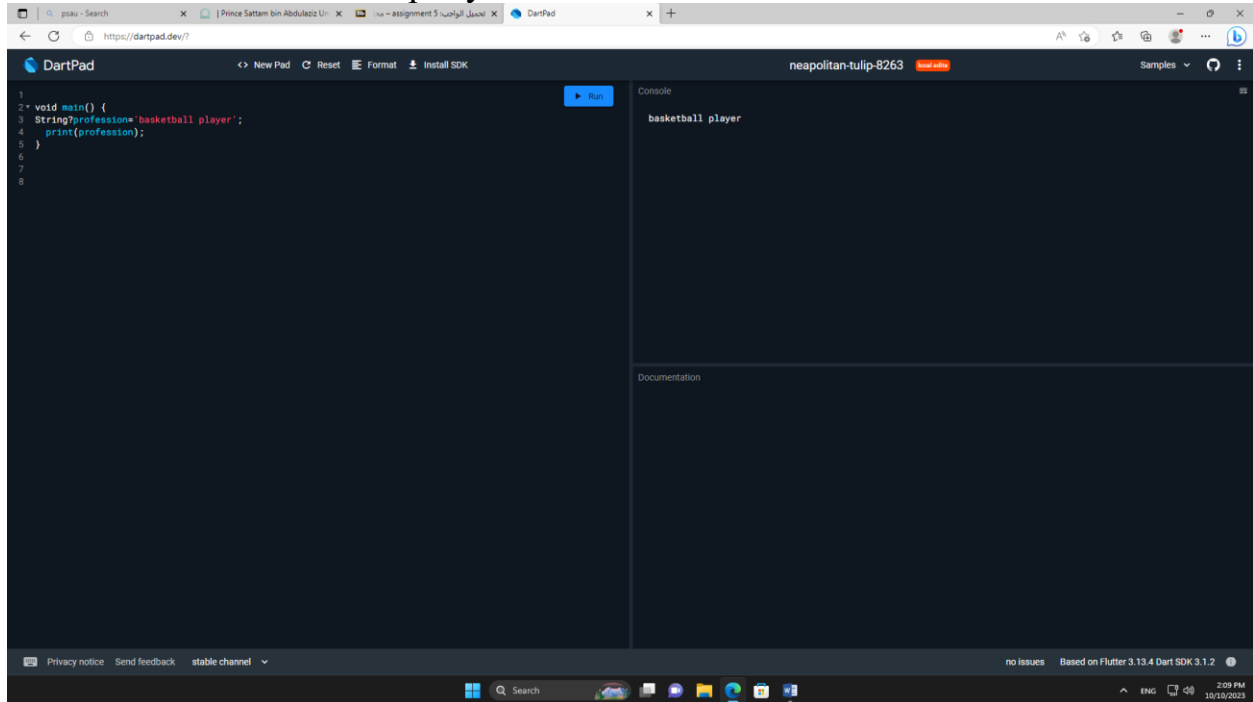
1. Create a `String?` variable called `profession`, but don't give it a value.
2. Then you'll have `profession` `null`. Get it? Professional?
3. Print the output.
4. Comment on the output you have seen.



```
void main() {  
String?profession;  
  print(profession);  
}
```

Exercise 2

1. Give `profession` a value of "basketball player".
2. Print the output.
3. Comment on the output you have seen.



```
void main() {  
String?profession='basketball player';  
  print(profession);  
}
```

Exercise 3

1. Write the following line and then hover your cursor over the variable name. What type does Dart infer `iLove` to be? `String` or `String`??

```
const iLove = 'Dart';
```

Challenge 1: Naming Customs

People around the world have different customs for giving names to children. It would be difficult to create a data class to accurately represent them all, but try it like this:

1. Create a class called `Name` with `givenName` and `surname` properties.
2. Some people write the surname last and some write it first.
3. Add a Boolean property called `surnameIsFirst` to keep track of this.
4. Not everyone in the world has a surname.
5. Add a `toString` method that prints the full name.

```
class Name{
  String givenName;
  String?surName;
  bool surnameIsFirst;
  Name(this.givenName,this.surName,this.surnameIsFirst);
  @override
  String toString(){
    if (surName!=null){
      if(surnameIsFirst){
        return'$surName $givenName';
      }
      else{
        return '$surName$givenName';}
    }

    else{
      return givenName;
    }
  }
}

void main(){
  Name name1=Name('john','Doe',true);
  print(name1);
  Name name2=Name('jahn',null,false);
```

```
print(name2);  
}
```

The screenshot shows the DartPad web IDE interface. The main editor displays a Dart class named `Name` with the following code:

```
1 class Name {  
2   String givenName;  
3   String? surName;  
4   bool surnameIsFirst;  
5   Name(this.givenName, this.surName, this.surnameIsFirst);  
6   @override  
7   String toString() {  
8     if (surName == null) {  
9       if (surnameIsFirst) {  
10        return '$surName $givenName';  
11      }  
12      else {  
13        return '$surName$givenName';  
14      }  
15    }  
16    else {  
17      return givenName;  
18    }  
19  }  
20 }  
21  
22 void main() {  
23   Name name1 = Name('john', 'Doe', true);  
24   print(name1);  
25   Name name2 = Name('jahn', null, false);  
26   print(name2);  
27 }  
28
```

The right sidebar contains two panels: "Console" and "Documentation". The "Console" panel shows the output of the program:

```
Doe john  
jahn
```

The bottom status bar indicates "no issues" and "Based on Flutter 3.13.4 Dart SDK 3.1.2". The system tray at the very bottom shows the time as 2:34 PM on 10/10/2023.