Flutter 基礎 5 - Dart Strings

參考資料 + 翻轉教室輔助影片

Flutter 基礎與實作 5 - Dart Strings

APP 程式設計實務 (2021 Fall)

▶ https://youtu.be/cvrh7pa2N34

Home

Tutorials about Dart and Flutter.

🔷 https://flutterbyexample.com/

Strings

String` is the basic class with which you write text. ```dart

🔷 https://flutterbyexample.com/lesson/strings
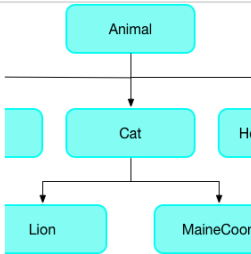
The Dart type system

The Dart language is type safe: it uses a combination of static

🔷 https://dart.dev/guides/language/type-system#type-inference

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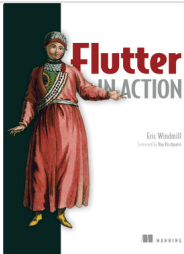**Intro to Dart's Type System**

Dart's type system is straightforward enough (as far as type systems go). But it is a

🔷 https://flutterbyexample.com/lesson/intro-to-dart-s-type-system

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課程設計

Dart 基礎程式設計 4：內建資料型態

Type Inference

> https://dart.dev/guides/language/type-system#type-inference

```
void main() {
  var i = 12;
  var d = 3.14;
  var s = "STUST";

  print("i.runtimeType = ${i.runtimeType}");
  print("d.runtimeType = ${d.runtimeType}");
  print("s.runtimeType = ${s.runtimeType}");
}
```

```
Console

  i.runtimeType =  int
  d.runtimeType =  double
  s.runtimeType =  String
```

```
1  void main() {
2    var i = 12;
3    var d = 3.14;
4    var s = "STUST";
5
6    i = 3.4;
7    d = 3;
8    s = 88;
9
10   print("i.runtimeType =  ${i.runtimeType}");
11   print("d.runtimeType =  ${d.runtimeType}");
12   print("s.runtimeType =  ${s.runtimeType}");
13 }
14
```

error | line 6 · A value of type 'double' can't be assigned to a variable of type 'int'. (view docs)

Try changing the type of the variable, or casting the right-hand type to 'int'.

error | line 8 · A value of type 'int' can't be assigned to a variable of type 'String'. (view docs)

Try changing the type of the variable, or casting the right-hand type to 'String'.

Dynamically Typed

> https://www.geeksforgeeks.org/data-types-in-dart/

```
1
2
3 void printInts(List<int> x) => print(x)
4
5 void main() {
6   var list = [];
7   list.add(1000);
8   list.add(2000);
9   printInts(list);
10 }
11
```

▶ Run

Console

```
Error compiling to JavaScript:
Info: Compiling with sound null
safety
Warning: Interpreting this as
package URI,
'package:dartpad_sample/main.dart'.
lib/main.dart:7:13:
Error: The argument type
'List<dynamic>' can't be assigned
to the parameter type 'List<int>'.
 - 'List' is from 'dart:core'.
  printInts(list);
            ^
Error: Compilation failed.
```

Unsound implicit cast from a `dynamic` type List to an `integer` type

Console

```
[1000, 2000]
```

```
void printInts(List<int> x) => print(x);

void main() {
  var list = <int>[];
  list.add(1000);
  list.add(2000);
  printInts(list);
}
```

```
void printInts(List<dynamic> x) => print(x);

void main() {
  var list = [];
  list.add(1000);
  list.add(2000);
  printInts(list);
}
```

Console

```
[1000, 2000]
```

String Operations

String Concatenate

https://www.tutorialkart.com/dart/dart-string-concatenate/

```
void main() {
  String str1 = 'STUST ';
  String str2 = 'Dart ';

  print("str1 + str2 = ${str1 + str2}");
  print("str1 + str2 + 2021.toString() = ${str1 + str2 + 2021.toString()}");
}
```

```
Console

 str1 + str2 = STUST Dart
 str1 + str2 + 2021.toString() = STUST Dart 2021
```

Split String

https://www.tutorialkart.com/dart/dart-split-string/

```
void main(){

    String str1 = 'hello-world-tutorialkart';
    String str2 = 'helloabcworldabctutorialkart';
    String str3 = '25,85,96,741,63';

    print("'$str1'.split('-') = ${str1.split('-')}");
    print("'$str2'.split('abc') = ${str2.split('abc')}");
    print("'$str3'.split(',') = ${str3.split(',')}");
}
```

```
Console

 'hello-world-tutorialkart'.split('-') = [hello, world, tutorialkart]
 'helloabcworldabctutorialkart'.split('abc') = [hello, world, tutorialkart]
 '25,85,96,741,63'.split(',') = [25, 85, 96, 741, 63]
```

Replace Substring

https://www.tutorialkart.com/dart/dart-replace-substring-in-string/

```
void main(){

    String str = 'Hello TutorialKart. Hello User.';

    print("str = $str");
    var s1 = str.replaceAll('Hello', 'Hi');
```

```
    print("str.replaceAll('Hello', 'Hi') = $s1");
    var s2 = str.replaceFirst('Hello', 'Hi').replaceAll('User', 'Client');
    print("str.replaceFirst('Hello', 'Hi').replaceAll('User', 'Client') = $s2");
```

```
Console
  str = Hello TutorialKart. Hello User.
  str.replaceAll('Hello', 'Hi') = Hi TutorialKart. Hi User.
  str.replaceFirst('Hello', 'Hi').replaceAll('User', 'Client') = Hi TutorialKart. Hello Client.
```

Substring

https://www.tutorialkart.com/dart/dart-replace-substring-in-string/

```
void main(){

    String str = 'STUST : Hello Dart Programming';

    print("0123456789"*3);
    print(str);
    print("str.substring(5,13) = ${str.substring(5,13)}");
    print("str.substring(14) = ${str.substring(14)}");
}
```

```
Console
    012345678901234567890123456789
    STUST : Hello Dart Programming
    str.substring(5,13) =  : Hello
    str.substring(14) = Dart Programming
```

Trim and Length

https://www.tutorialkart.com/dart/dart-trim-string/

```
void main(){

    String str = '   Hello Dart Programming   ';

    print("0123456789"*3);
    print(str);
    print("str.trim() = ${str.trim()}");
    print("str.trim().length = ${str.trim().length}");
}
```

```
Console

012345678901234567890123456789
    Hello Dart Programming
str.trim() = Hello Dart Programming
str.trim().length = 22
```

更詳細的操作說明，請參閱『翻轉教室輔助影片』...