

 免費電子書

學習

dart

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#dart

.....	1
1:	2
.....	2
.....	2
.....	2
.....	2
.....	2
.....	2
Examples	4
.....	4
.....	5
.....	5
.....	5
.....	5
Http	5
HTML	5
.....	5
.....	5
.....	5
2: Dart-JavaScript	7
.....	7
Examples	7
.....	7
JavaScript/	7
.....	7
3:	9
.....	9
Examples	9
.....	9
4:	10
.....	10
Examples	10
.....	10

5:	11
.....	11
Examples.....	11
.....	11
.....	11
6:	13
.....	13
Examples.....	13
.....	13
.....	13
.....	14
.....	14
.....	14
7:	15
Examples.....	15
.....	15
.....	15
.....	15
8:	17
.....	17
.....	17
.....	17
Examples.....	17
.....	17
9:	18
Examples.....	18
.....	18
Loop.....	18
.....	18
.....	19
10:	21
Examples.....	21

DateTime	21
11:	22
Examples	22
.....	22
12:	23
Examples	23
.....	23
.....	23
.....	23
13:	25
.....	25
.....	25
Examples	25
.....	25
.....	25
Dartdoc	25
14:	27
Examples	27
JSON	27
15:	28
.....	28
Examples	28
.....	28
.....	28
16:	29
Examples	29
.....	29
.....	29
.....	29
.....	29
.....	30
17:	31

Examples.....	31
.....	31
.....	31
.....	32
.....	33

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1:



DartGoogleWeb Dart

- Web
- Dart
- DartWeb

Dart

Dart

-
-
- **DOMCSSjQuery**
- **Dart IDE** IDE Dart [WebStorm](#)
- **Dartium** Chromium Web Dart

- [Dart](#)
- [Dart](#)
- [Dartosphere](#) - Dart
- Google+ [Dartisans](#) Dartisans
- [Dart Web Development - Google Groups Page](#)
- [Dart Language Misc - Google](#)
- [DartLangReddit](#)

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- [Dart API](#)

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1.22.1	2017222
1.22.0	2017214
1.21.1	2016113
1.21.0	2016127
1.20.1	20161013

1.20.0	20161011
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1.17.1	2016610
1.17.0	201666
1.16.1	2016523
1.16.0	2016426
1.15.0	201639
1.14.2	201629
1.14.1	201623
1.14.0	2016128
1.13.2	201615
1.13.1	20151217
1.13.0	
1.12.2	20151021
1.12.1	2015-09-08
1.12.0	2015831
1.11.3	201583
1.11.1	201572
1.11.0	2015624
1.10.1	2015511
1.10.0	2015424
1.9.3	2015413
1.9.1	2015325

1.8.5	2015113
1.8.3	2014121
1.8.0	
1.7.2	20141014
1.6.0	2014827
1.5.8	2014729
1.5.3	201473
1.5.2	201472
1.5.1	2014624
1.4.3	2014616
1.4.2	2014527
1.4.0	
1.3.6	
1.3.3	2014416
1.3.0	201448
1.2.0	2014225
1.1.3	201426
1.1.1	2014115
1.0.0.10_r30798	2013122
1.0.0.3_r30188	20131112
0.8.10.10_r30107	2013118
0.8.10.6_r30036	2013117
0.8.10.3_r29803	2013114

Examples

Dart SDK DartVMdoc. WebDartium.

- [WindowsDart](#)
- [MacDart](#)
- [LinuxDart](#)

SDK ◦

hello_world.dart

```
void main() {
  print('Hello, World!');
}
```

hello_world.dart

```
dart hello_world.dart
```

☐☐Hello, World!◦

Http

HTML

```
<img id="cats"></img>
```

```
import 'dart:html';

/// Stores the image in [blob] in the [ImageElement] of the given [selector].
void setImage(selector, blob) {
  FileReader reader = new FileReader();
  reader.onLoad.listen((fe) {
    ImageElement image = document.querySelector(selector);
    image.src = reader.result;
  });
  reader.readAsDataURL(blob);
}

main() async {
  var url = "https://upload.wikimedia.org/wikipedia/commons/2/28/Tortoiseshell_she-cat.JPG";

  // Initiates a request and asynchronously waits for the result.
  var request = await HttpRequest.request(url, responseType: 'blob');
  var blob = request.response;
  setImage("#cats", blob);
}
```

<https://dartpad.dartlang.org/a0e092983f63a40b0b716989cac6969a>

```
void main() {
  var cat = new Cat();

  print("Is cat hungry? ${cat.isHungry}"); // Is cat hungry? true
```

```
print("Is cat cuddly? ${cat.isCuddly}"); // Is cat cuddly? false
print("Feed cat.");
cat.isHungry = false;
print("Is cat hungry? ${cat.isHungry}"); // Is cat hungry? false
print("Is cat cuddly? ${cat.isCuddly}"); // Is cat cuddly? true
}

class Cat {
  bool _isHungry = true;

  bool get isCuddly => !_isHungry;

  bool get isHungry => _isHungry;
  bool set isHungry(bool hungry) => this._isHungry = hungry;
}
```

[DartgettersetterAPI](#)。

[dartpad https //dartpad.dartlang.org/c25af60ca18a192b84af6990f3313233](https://dartpad.dartlang.org/c25af60ca18a192b84af6990f3313233)

<https://riptutorial.com/zh-TW/dart/topic/843/>

2: Dart-JavaScript

Dart-JavaScript DartJavaScript ◦

js Dart ◦ JavaScript ◦ DartJavaScript ◦

Examples

JavaScript JSON.stringify JSON ◦

external @JS @JS

```
@JS("JSON.stringify")
external String stringify(obj);
```

@JS JavaScript Dart ◦

JavaScript/

Google Maps JavaScript API google.maps

```
@JS('google.maps')
library maps;

import "package:js/js.dart";

@JS()
class Map {
  external Map(Location location);
  external Location getLocation();
}
```

Map DartJavaScript google.maps.Map ◦

Dart new Map(someLocation) JavaScript new google.maps.Map(location) ◦

DartJavaScript

```
@JS("LatLng")
class Location {
  external Location(num lat, num lng);
}
```

Location Dart google.maps.LatLng ◦

◦

JavaScript

```
// JavaScript
printOptions({responsive: true});
Unfortunately we cannot pass Dart Map objects to JavaScript in these cases.
```

Dart

```
// Dart
@JS()
@anonymous
class Options {
  external bool get responsive;

  external factory Options({bool responsive});
}
```

Options DartJavaScript ◦ @anonymous ◦

printOptionsOptions

```
// Dart
@JS()
external printOptions(Options options);

printOptions(new Options(responsive: true));
```

Dart-JavaScript <https://riptutorial.com/zh-TW/dart/topic/9240/dart-javascript>

3:

Dart。 。 。

JavaDart。 。

Dart[ExceptionError](#)。 。 Dartnull - [ExceptionError](#) - 。

Examples

```
class CustomException implements Exception {
  String cause;
  CustomException(this.cause);
}

void main() {
  try {
    throwException();
  } on CustomException {
    print("custom exception is been obtained");
  }
}

throwException() {
  throw new CustomException('This is my first custom exception');
}
```

<https://riptutorial.com/zh-TW/dart/topic/3334/>

4:

Dart `List.whereList`. `retainWhere` `where` `true` `list`; `false` `.`

`theList.retainWhere(foo)` `theList` = `theList.where(foo)` `.`

Examples

`[-1, 0, 2, 4, 7, 9].where((x) => x > 2) --> [4, 7, 9]`

<https://riptutorial.com/zh-TW/dart/topic/10948/>

5:

DartFunction ◦ ◦ Dart ◦

Examples

{param1param2...}

```
void enableFlags({bool bold, bool hidden}) {  
  // ...  
}
```

paramNamevalue

```
enableFlags(bold: true, hidden: false);
```

Dart ◦

```
void outerFunction() {  
  
  bool innerFunction() {  
    /// Does stuff  
  }  
}
```

innerFunctionouterFunction ◦ ◦

Dart ◦ Listsort ◦

```
int compare(E a, E b)
```

ab0 ◦ -1a < b1a > b ◦

◦

```
List<int> numbers = [4,1,3,5,7];  
  
numbers.sort((int a, int b) {  
  if(a == b) {  
    return 0;  
  } else if (a < b) {  
    return -1;  
  } else {  
    return 1;  
  }  
});
```

```
Function intSorter = (int a, int b) {  
  if(a == b) {
```



```
    return 0;
} else if (a < b) {
    return -1;
} else {
    return 1;
}
}
```

◦

```
numbers.sort(intSorter);
```

<https://riptutorial.com/zh-TW/dart/topic/2965/>

6:

import library Dart library pubSDK Pub Package Asset Manager

Examples

import

```
import 'dart:html';
```

import URI URI dart: scheme package: scheme package: schemepub

```
import 'dart:io';  
import 'package:mylib/mylib.dart';  
import 'package:utils/utils.dart';
```

Java Dart public protected private _

other.dart A

```
library other;  
  
class A {  
  int _private = 0;  
  
  testA() {  
    print('int value: $_private'); // 0  
    _private = 5;  
    print('int value: $_private'); // 5  
  }  
}
```

```
import 'other.dart';  
  
void main() {  
  var b = new B();  
  b.testB();  
}  
  
class B extends A {  
  String _private;  
  
  testB() {  
    _private = 'Hello';  
    print('String value: $_private'); // Hello  
    testA();  
    print('String value: $_private'); // Hello  
  }  
}
```

```
String value: Hello
```

```
int value: 0
int value: 5
String value: Hello
```

- **library1library2Element**

```
import 'package:lib1/lib1.dart';
import 'package:lib2/lib2.dart' as lib2;
// ...
var element1 = new Element(); // Uses Element from lib1.
var element2 =
    new lib2.Element();      // Uses Element from lib2.
```

-

```
// Import only foo and bar.
import 'package:lib1/lib1.dart' show foo, bar;

// Import all names EXCEPT foo.
import 'package:lib2/lib2.dart' hide foo;
```

- **deferred**

```
import 'package:deferred/hello.dart' deferred as hello;
```

- **loadLibrary**

```
greet() async {
  await hello.loadLibrary();
  hello.printGreeting();
}
```

await ◦ asyncawait ◦

<https://riptutorial.com/zh-TW/dart/topic/3332/>

7:

Examples

+

```
'Dart ' + 'is ' + 'fun!'; // 'Dart is fun!'
```

```
'Dart ' 'is ' 'fun!'; // 'Dart is fun!'
```

`String` Dart

```
var text = 'dartlang';  
'$text has ${text.length} letters'; // 'dartlang has 8 letters'
```

• • Dart

```
'Single quotes';  
"Double quotes";  
'Double quotes in "single" quotes';  
"Single quotes in 'double' quotes";
```

```
'''A  
multiline  
string''';
```

```
"""  
Another  
multiline  
string""";
```

`String` `StringBuffer` `toString()` `StringBuffer` `String`

```
var sb = new StringBuffer();  
  
sb.write("Use a StringBuffer");  
sb.writeAll(["for ", "efficient ", "string ", "creation "]);  
sb.write("if you are ")  
sb.write("building lots of strings");  
  
// or you can use method cascades:  
  
sb  
  ..write("Use a StringBuffer")  
  ..writeAll(["for ", "efficient ", "string ", "creation "])  
  ..write("if you are ")  
  ..write("building lots of strings");  
  
var fullString = sb.toString();  
  
print(fullString);
```

```
// Use a StringBuffer for efficient string creation if you are building lots of strings  
sb.clear(); // all gone!
```

<https://riptutorial.com/zh-TW/dart/topic/5003/>

8:

- `var regExp = RegExp('^.*$', {multiline: true, caseSensitive: false});`

String source	String
{bool multiline}	◦ ^\$
{bool caseSensitive}	

DartJavaScript ◦ JavaScript <http://ecma-international.org/ecma-262/5.1/#sec-15.10> ◦

JavaScriptdart ◦

Examples

```
var regExp = new RegExp(r"(\w+)");
var str = "Parse my string";
Iterable<Match> matches = regExp.allMatches(str);
```

“raw strings”_r ◦

<https://riptutorial.com/zh-TW/dart/topic/3624/>

9:

Examples

Dart

```
if (year >= 2001) {
  print('21st century');
} else if (year >= 1901) {
  print('20th century');
} else {
  print('We Must Go Back!');
}
```

if

```
var foo = true;
print(foo ? 'Foo' : 'Bar'); // Displays "Foo".
```

Loop

Dartwhile

```
while (peopleAreClapping()) {
  playSongs();
}
```

```
do {
  processRequest();
} while (stillRunning());
```

break

```
while (true) {
  if (shutDownRequested()) break;
  processIncomingRequests();
}
```

continue

```
for (var i = 0; i < bigNumber; i++) {
  if (i.isEven){
    continue;
  }
  doSomething();
}
```

for

```
for (int month = 1; month <= 12; month++) {
    print(month);
}
```

```
for (var object in flybyObjects) {
    print(object);
}
```

Iterable for-in° `forEachIterable`for-in

```
flybyObjects.forEach((object) => print(object));
```

```
flybyObjects.forEach(print);
```

Dartswitch caselong if-else

```
var command = 'OPEN';

switch (command) {
    case 'CLOSED':
        executeClosed();
        break;
    case 'OPEN':
        executeOpen();
        break;
    case 'APPROVED':
        executeApproved();
        break;
    case 'UNSURE':
        // missing break statement means this case will fall through
        // to the next statement, in this case the default case
    default:
        executeUnknown();
}
```

◦ **==**◦

Dart◦ ◦ ◦ `break``continue``throw``return`◦

```
var command = 'OPEN';
switch (command) {
    case 'OPEN':
        executeOpen();
        // ERROR: Missing break causes an exception to be thrown!!

    case 'CLOSED': // Empty case falls through
    case 'LOCKED':
        executeClosed();
        break;
}
```

`case``continue`

```
var command = 'OPEN';
```



```
switch (command) {
  case 'OPEN':
    executeOpen();
    continue locked;
locked: case 'LOCKED':
    executeClosed();
    break;
}
```

<https://riptutorial.com/zh-TW/dart/topic/923/>

10:

Examples

DateTime

```
DateTime now = new DateTime.now();  
DateTime berlinWallFell = new DateTime(1989, 11, 9);  
DateTime moonLanding = DateTime.parse("1969-07-20 20:18:00"); // 8:18pm
```

◦

<https://riptutorial.com/zh-TW/dart/topic/3322/>

11:

Examples

```
enum Fruit {
  apple, banana
}

main() {
  var a = Fruit.apple;
  switch (a) {
    case Fruit.apple:
      print('it is an apple');
      break;
  }

  // get all the values of the enums
  for (List<Fruit> value in Fruit.values) {
    print(value);
  }

  // get the second value
  print(Fruit.values[1]);
}
```

<https://riptutorial.com/zh-TW/dart/topic/5107/>

12:

Examples

```
Future<Results> costlyQuery() {
  var completer = new Completer();

  database.query("SELECT * FROM giant_table", (results) {
    // when complete
    completer.complete(results);
  }, (error) {
    completer.completeException(error);
  });

  // this returns essentially immediately,
  // before query is finished
  return completer.future;
}
```

```
import 'dart:async';

Future main() async {
  var value = await _waitForValue();
  print("Here is the value: $value");
  //since _waitForValue() returns immediately if you un it without await you won't get the
  result
  var errorValue = "not finished yet";
  _waitForValue();
  print("Here is the error value: $value");// not finished yet
}

Future<int> _waitForValue() => new Future((){

  var n = 100000000;

  // Do some long process
  for (var i = 1; i <= n; i++) {
    // Print out progress:
    if ([n / 2, n / 4, n / 10, n / 20].contains(i)) {
      print("Not done yet...");
    }

    // Return value when done.
    if (i == n) {
      print("Done.");
      return i;
    }
  }
});
```

Dartpad <https://dartpad.dartlang.org/11d189b51e0f2680793ab3e16e53613c>

DartFuture Stream. FuturesAPI. DartCompleter. CompleterFuture.

FutureAPIAPI. FuturesFuture.

```
// A good use of a Completer.  
  
Future doStuff() {  
  Completer completer = new Completer();  
  runDatabaseQuery(sql, (results) {  
    completer.complete(results);  
  });  
  return completer.future;  
}
```

APIFutureCompleter。

<https://riptutorial.com/zh-TW/dart/topic/2520/>

13:

- //
- /* */
- /// Dartdoc

◦ ◦

StackOverflow

-

Examples

//◦

```
int i = 0; // Commented out text
```

/**/◦

```
void main() {  
  for (int i = 0; i < 5; i++) {  
    /* This is commented, and  
    will not affect code */  
    print('hello ${i + 1}');  
  }  
}
```

Dartdoc

doc[dartdoc](#)◦

```
/// The number of characters in this chunk when unsplit.  
int get length => ...
```

[dartdoc](#)[markdown](#)◦

```
/// This is a paragraph of regular text.  
///  
/// This sentence has two emphasized words (i.e. italics) and two  
/// strong ones (bold).  
///  
/// A blank line creates another separate paragraph. It has some inline code  
/// delimited using backticks.  
///  
/// * Unordered lists.  
/// * Look like ASCII bullet lists.  
/// * You can also use -` or +`.  
///
```

```
/// Links can be:  
///  
/// * http://www.just-a-bare-url.com  
/// * [with the URL inline](http://google.com)  
/// * [or separated out][ref link]  
///  
/// [ref link]: http://google.com  
///  
/// # A Header  
///  
/// ## A subheader
```

<https://riptutorial.com/zh-TW/dart/topic/2436/>

14:

Examples

JSON

```
import 'dart:convert';

void main() {
  var jsonString = """
  {
    "cats": {
      "abysinnian": {
        "origin": "Burma",
        "behavior": "playful"
      }
    }
  }
  """;

  var obj = JSON.decode(jsonString);

  print(obj['cats']['abysinnian']['behavior']); // playful
}
```

dartpad <https://dartpad.dartlang.org/7d5958cf10e611b36326f27b062108fe>

<https://riptutorial.com/zh-TW/dart/topic/2778/>

15:

Dart SDK [pub](#) [pub](#) [HTTP pub.dartlang.org](http://pub.dartlang.org) [IDE WebStorm](#) [pub](#)

[Pub](#)

Examples

Web [pub build](#) [pub build build](#)

`pub build`

```
$ cd ~/dart/helloworld
$ pub build
Building helloworld.....
Built 5 files!
```

Dart Web [localhost HTTP Web](#)

Web [pubspec.yaml dev](#)

```
$ cd ~/dart/helloworld
$ pub serve
Serving helloworld on http://localhost:8080
```

<https://riptutorial.com/zh-TW/dart/topic/3335/>

16:

Examples

◦

List

```
var vegetables = ['broccoli', 'cabbage'];
```

List

```
var fruits = new List();
```

```
var fruits = <String>['apples', 'oranges'];  
var fruits = new List<String>();
```

◦

```
var fixedLengthList1 = new List(8);  
var fixedLengthList2 = new List.filled(8, "initial text");  
var computedValues = new List.generate(8, (n) => "x" * n);  
var fromIterable = new List<String>.from(computedValues.getRange(2, 5));
```

Effective Dart◦

```
var ingredients = new Set();  
ingredients.addAll(['gold', 'titanium', 'xenon']);
```

◦

```
var searchTerms = new Map();
```

```
var nobleGases = new Map<int, String>();  
var nobleGases = <int, String>{};
```

```
var map = {  
  "key1": "value1",  
  "key2": "value2"  
};
```

◦

mapFunction◦ Iterable◦ Iterable◦

Iterable.toSet() Iterable.toList() IterableQueue.fromList.fromList.from◦

```
main() {
  var cats = [
    'Abyssinian',
    'Scottish Fold',
    'Domestic Shorthair'
  ];

  print(cats); // [Abyssinian, Scottish Fold, Domestic Shorthair]

  var catsInReverse =
  cats.map((String cat) {
    return new String.fromCharCode(cat.codeUnits.reversed);
  })
  .toList(); // [nainissybA, dloF hsittocS, riahtrohS citsemoD]

  print(catsInReverse);
}
```

dartpad <https://dartpad.dartlang.org/a18367ff767f172b34ff03c7008a6fa1>

Dart_{where}◦

```
var fruits = ['apples', 'oranges', 'bananas'];
fruits.where((f) => f.startsWith('a')).toList(); //apples
```

whereANDOR◦

<https://riptutorial.com/zh-TW/dart/topic/859/>

17:

Examples

```
class InputField {
    int maxLength;
    String name;
}
```

new null ◦

```
var field = new InputField();
```

```
// this will trigger the setter
field.name = "fieldname";
```

```
// this will trigger the getter
print(field.name);
```

◦

/◦ null ◦

```
class Foo {
    var member1;
    int member2;
    String member3 = "Hello world!";
}
```

static◦

```
class Bar {
    static var member4;
    static String member5;
    static int member6 = 42;
}
```

getter

```
class Foo {
    String get bar {
        var result;
        // ...
        return result;
    }
}
```

gettersgetter

```
main() {
  var foo = new Foo();
  print(foo.bar); // prints "bar"
}
```

setter

```
class Foo {
  String _bar;

  String get bar => _bar;

  void set bar(String value) {
    _bar = value;
  }
}
```

setter

```
main() {
  var foo = new Foo();
  foo.bar = "this is calling a setter method";
}
```

o

Person

```
class Person {
  String name;
  String gender;
  int age;

  Person(this.name, this.gender, this.age);
}
```

```
class Person {
  String name;
  String gender;
  int age;

  Person(String name, String gender, int age) {
    this.name = name;
    this.gender = gender;
    this.age = age;
  }
}
```

Person

```
var alice = new Person('Alice', 'female', 21);
```

<https://riptutorial.com/zh-TW/dart/topic/1511/>

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