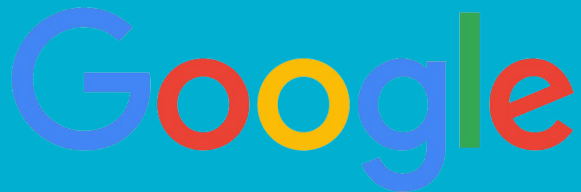


Dart & Flutter



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History



- Dart First Appeared in 2011
- Designed by Lars Bak and Kasper Lund
- Developed by Google
- Dart 1.0 was released in 2013
- Flutter First appeared in 2015
- Flutter original release 2017
- Developed by Google



What is Dart?

- Class based, object oriented, dynamic language with C Syntax
 - Java, C#, Javascript
 - Good for developers new to web
- Fast (Java, JavaScript x2)
- Scalable Programming language for building web, server, and mobile apps
- Tries to better JavaScript's lack of structuring mechanisms, tools, code analyzers
- Compile to JavaScript
- Can even call existing Javascript libraries into dart
 - Many dart port libraries (PUB)
- Run across modern desktop and mobile browsers
- Like Scala purely object oriented basic types are objects
- Easy to use with many popular text editor(VS Code, Eclipse, Intelli J)
- Used by Google Engineers
- Free

```
main() {  
  printMessage();  
  print(test());  
  print(second());  
}  
  
printMessage() => print("hello");  
  
int test()=>123;  
  
bool second(){  
  return false;  
}  
  
//hello  
//123  
//false
```

Dart Demonstration

Dart Drawbacks

- Fairley new Programming language
 - Less help/documentation on the internet
 - Less jobs use dart on day to day bases
- Currently in Development
 - API might change
 - Things might not be documented fully or correctly

What is Flutter?

- Google's Mobile UI framework
 - Fast way for developers to build native apps
- Flutter is a platform built specifically for mobile apps using Dart
- Can build both Android and ios apps
 - Java , Swift, Kotlin
- Built from single code base and compiled to native ARM code
- Designed for fast programming
 - Hot reload (Reloads app whilst writing code)
- Integrates with popular editors(VS code, Intelli J, Xcode)
- Widgets, rendering, and animation in framework
 - Gives complete control and flexibility
- Google Play, Alibaba, BMW, Toyota,Ebay,Abbey Road Studios
- Free

Flutter Demonstration

Flutter Drawbacks

- No browser support which means no web apps
- Not been around long enough for there to be lots of resources
 - Will have to write a lot of code from scratch
- Forced to learn dart in order to use flutter