

# Dart programming language

## Introduction

- ↳ Dart is high level, general purpose, compiled, client optimized programming language developed by Google.
- ↳ Dart is widely used for developing cross platform mobile application.
- ↳ Dart is simple yet very powerful language.

## Features

- 1) High level
- 2) General purpose
- 3) Compiled
- 4) Client optimized
- 5) Statically as well as dynamically typed
- 6) Free and open source.
- 7) Large community.

## Applications

- 1) Mobile App development
- 2) Web App development
- 3) IOT
- 4) Desktop app dev
- 5) Server side development.

Dart supports JIT and AOT compiler.



## JIT

- ↳ Just in time Compiler
- ↳ It Converts Source code into machine code during runtime of a program
- ↳ It Supports faster development
- ↳ Hot Reload feature in Flutter is possible because of JIT Compiler.

## AOT

- ↳ Ahead of time compiler
- ↳ It Converts Source code into machine code before execution of program
- ↳ It helps in deployment.

## First Program

```
Void main() {  
  print("First dart program");  
}
```

- \* Void is the return type (Return type is optional)
- \* main is the special top level function which gets executed very first.
- \* print is a statement or inbuilt function which accept object as parameter & displays it in console line.

## \* Data types in dart

1) int	4) double	7) List	} Note All data types are objects.
2) BigInt	5) bool	8) Map	
3) num	6) String	9) Set	

## Comments

part of a program which is never going to be executed  
It is used for self understanding of code.

### types of comments.

1) Single line //

2) Multi line /\* \*/ => discouraged.

3) Documentation ///

## Literals

0x => Hexadecimal

Exponent => e