**Dart (Programming Language)**

* Dart is a programming language, developed by google which is replaced by Java on 2015.
* A simple hello world program in Dart:

main () {

Print(“Hello World”);

}

* Variable types used in Dart are:

Dart doesn’t support **float**

1. Int
2. Double
3. Num - to store either whole numbers or decimal numbers
4. String
5. Bool
6. Var – overrides only for same data type
7. Dynamic – initializes at runtime and can override for any datatype

The main difference b/w var and dynamic are

For example:

main () {

var x=10;

x=12;

print(x); // Here we get an output of 12

}

But,

main () {

var x=10;

x=” fun”;

print(x); // Here it doesn’t support, and we get an error but dynamic supports

}

* To find the datatype we use runtimeType() in dart:

main () {

String x="fun";

print(x.runtimeType); // It prints String as an output

}

* A small example using bool data type:

void main () {

bool isAlive = true;

if(isAlive)

{

print("YES"); // It prints YES as an output

}

else

{

print("No");

}

}

* Here,

void main() {

double x=0.2;

double y=0.1;

print(x+y);

}

It gives an output of 0.30000000000000004 instead of 0.3 because in Computers store numbers in binary (base-2), and some decimal fractions—like 0.1 or 0.2—cannot be represented exactly in binary. Instead, they’re stored as approximations. So when you add 0.2 and 0.1, the result isn’t exactly 0.3, but a tiny bit more:

0.2 ≈ 0.200000000000000011102230246...

0.1 ≈ 0.100000000000000005551115123...

Together we will get,  
 0.300000000000000044408345369...

To overcome this error, we use toStringAsFixed() :

void main () {

double x = 0.2;

double y = 0.1;

print ((x + y).toStringAsFixed(1)); // Output is 0.3

}