

Kotlin can be used for clients or servers. Server can be a cloud computer.

Kotlin was created in 2011. Kotlin is compatible with java. Server responds to requests from the client. Kotlin can support 2.5 million devices running on android.

A variable is a piece of data which has type and value. We declare variable using val

Type inference is a specific feature of kotlin where when the type is obvious we do not have to say its type. Example:

```
val firstname : string = "Sandrine";
```

=> val firstname = "sandrine" // this lets us decide that kotlin is statically typed

val : for only read only

var: for read and write

Operators

/,*,+,etc

Strings

Length = string.length

string.isEmpty

string.substring(2,4) //start from 2 but do not include the character at index 4

To do string interpolation, we use \$ sign

```
println("my name is $string_name")
```

Conditionals

If, etc

listOf: instead of having many variables of the same datatype we can have one variable containing all the values. Example:

```
Val name1 = "maya"
```

```
Val name2 = "nono"
```

```
Val name3 = "cheng"
```

```
Val names = listOf("maya","nono","cheng")
```

If you want to see the third name we can do

Names[2]

To modify the names we have to use

```
Val names = mutableListOf("maya","nono","cheng")
names.add("sandrine")
```

To print each of the value in the list we have to do

```
for(name in names)
    println(name)
```

```
}
```

We can also do this

```
for(i in 1..5){
    println(i)
} or for( i in 1 until 5) { println(i) }
```

Functions help us to create reusable codes. If you want to pass a parameter we do this

```
Fun myFunction(name: String) {
    println("Hello $name")
}
```

Also we can use the access types like private, public, etc

Nullability

Null means having no value. If a variable is allowed to have no value we use the question mark.

```
Val instagramBio: string? = null
```

If we want to change it and do other stuffs then we have to do this

```
println(instagramBio?.toUpperCase())
```

Object in kotlin

We do not use the new keyword while instantiating classes