Const and variable

var a = 6 -> can changing

Val b = 8 -> cannot changing

Data Types

String – Int - Float

Double - Char – Boolean

Ex: var a : Int = 10

Print

Print()

Println()

Read from User

val name = readLine()

Operations

*, / , + , -

+= , -= , *= , /=

++ , --

Conditions

If (condition happen) {

Do your program

}

else (condition not happen) {

Do your program

}

when likes switch

when(something) - >optional
{

Case1 -> {

Do your program

}

Case2 {

Do your program

}

else -> default

{

Do your program

}

}

Loops

For (something in 1...9) ->
useful when we know the
limit will be stop

{

Do your program

}

While (something happens)

-> useful when we not know
the limit will be stop

{

Do your program

}

Error handling

try {

Do your program

}

catch (e: Exception)

{

Write error message appear
to user

}

Random number from 0-10

val num=Random.nextInt(11)

Functions

```
fun sayHi(){
      println("Hi")
  }
fun add(num1: Int): Int{
      return
  }
```

Lists and Arrays

x= listOf("Fluffy", "Snoopy")

pets = arrayOf("Fluffy",
"Snoopy")

ArrayLists

val shoppingList = ArrayList()

shoppingList.add("Eggs")

shoppingList.remove("Milk")

2D ArrayLists

x = arrayListOf<ArrayList<String>>()

Dictionaries

mapOf(1 to "Sara", 2 to "Jim", 3 to "Jane")

OOP

```
class Person(val name: String){
  fun introduction(){
   println("Hi, my name is $name")
}
}
abstract class Vehicle{
      var color = "Blue"
      abstract fun doors()
   }
 class FamilyCar: Vehicle(){
     override fun doors() {
      println("This car has 4 doors")
      }
   }
```