/\*

Dear Students, Please copy this code and insert this code in any kotlin compiler. Run this code and observe output.

For best practice, Write a main function (you can also copy from here) and then copy code block by block e.g. variable, constants etc.

and paste in compiler. run and observe output.

\*/

fun main()

{

//Print statement in kotlin

println(" this is my first koltlin program") // inserts a new line character at the end of line

print("This is my second line") // do not insert a new line character at the end

// Variables in kotlin

var age:Int= 24

var name:String = "Hira Arshad"

var CGPA = 3.45 // data type is optional, here data type will be detected automatically and it will be float

println("Student name is: " + name)

println("Student age is: $age")

println("CGPA is: $CGPA")

// Constants

val empName:String ="Hassan Arshad" // val is used instead of var to make any variable constant

println(empName)

/\*

empName = "Rabia Farooq" // invalid statement as empName is constant varaible and value can not be changed

\*/

// Conditional statements

if(age>=18)

println("You are an adult")

else

println("You are a child")

// LOOPs

/\*While Loop\*/

var x=0

while(x<10)

{

println("this is iteration no. $x")

x+=1

}

/\*For Loop\*/

for(i in 0 until 100) // 100 is not included

println("this is iteration no. $i")

// another method to use for loop

for(j in 0..100) // 100 is included

println("this is iteration no. $j")

//changing increment in loop

for(j in 0..100 step 5) // it will increase j with 5 after each iteration e.g. 0, 5, 10, etc.

println("this is iteration no. $j")

// Reverse loop

for (k in 100 downTo 1)// k wil iterate from 100 to 1... for reverse loop downTo is used. You can chnage step by default it is 1

println("REVERSE LOOP -> This is iteration no. " + k)

// 1 is included here

//

println("\n\n\n\n")

// Lists and Arrays

var ages = listOf(24, 23, 18, 19, 39)

var weights = listOf<Float>(5.45f, 78.95f, 77.45f, 98.0f) // mentioning data type is optional, f is written as postfix with each float value

println(ages) // will print all ages in the form of array

for (weight in weights) // will iterate one by one for each weight in weights

println(" Weight is: $weight")

var names = arrayOf<String>("Ahamd", "Hania", "Zahra", "Zahid", "Shafeeq")// declares an array of type string

for(name in names)// this will print each name in array 'names'

println(name)

// Switch statement in kotlin i.e. When(this is an alternative of swtich in kotlin)

var day = 4

when(day)

{

1-> println(" its Monday")

2-> println(" its Tuesday")

3-> println(" its Wednesday")

4-> println(" its Thursday")

5-> println(" its Friday")

6-> println(" its Saturday")

7-> println(" its Sunday")

else-> println(" Invalid Day")

}

}