Universidad Nacional Politécnica
Departamento de Ciencia

Ingeniería en Computación
Programación móvil

Nombre: Victor Manuel Leiva

Docente: Ing. Luis

4- Codelabs: Functions vale 4 puntos

https://developer.android.com/codelabs/kotlin-bootcamp-functions

Answer these questions

Question 1

The contains(element: String) function returns true if the string element is contained in the string it's called on. What will be the output of the following code?

val decorations = listOf ("rock", "pagoda", "plastic plant", "alligator", "flowerpot")

println(decorations.filter {it.contains('p')})

[pagoda, plastic, plant]

[pagoda, plastic plant]

[pagoda, plastic plant, flowerpot]

[rock, alligator]

Question 2

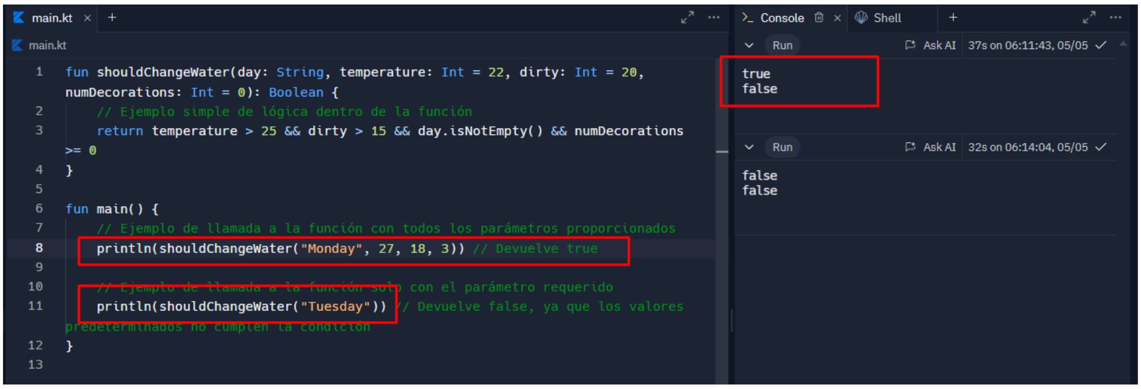
In the following function definition, which one of the parameters is required? fun shouldChangeWater (day: String, temperature: Int = 22, dirty: Int = 20, numDecorations: Int = 0): Boolean {...}

numDecorations

dirty

day

temperature



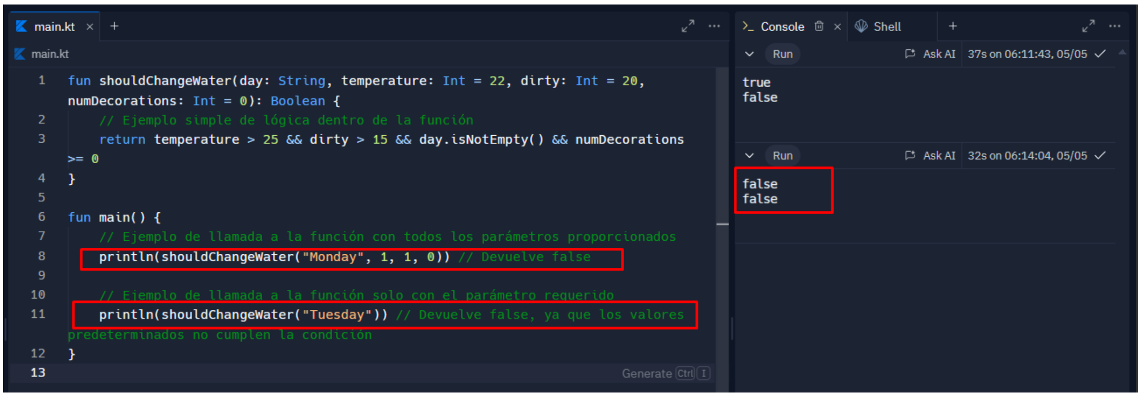
```kotlin
fun shouldChangeWater(day: String, temperature: Int = 22, dirty: Int = 20, numDecorations: Int = 0): Boolean {
    // Ejemplo simple de lógica dentro de la función
    return temperature > 25 && dirty > 15 && day.isNotEmpty() && numDecorations >= 0
}

fun main() {
    // Ejemplo de llamada a la función con todos los parámetros proporcionados
    println(shouldChangeWater("Monday", 27, 18, 3)) // Devuelve true

    // Ejemplo de llamada a la función solo con el parámetro requerido
    println(shouldChangeWater("Tuesday")) // Devuelve false, ya que los valores predeterminados no cumplen la condición
}
```

```
true
false
```

```
false
false
```



```kotlin
fun shouldChangeWater(day: String, temperature: Int = 22, dirty: Int = 20, numDecorations: Int = 0): Boolean {
    // Ejemplo simple de lógica dentro de la función
    return temperature > 25 && dirty > 15 && day.isNotEmpty() && numDecorations >= 0
}

fun main() {
    // Ejemplo de llamada a la función con todos los parámetros proporcionados
    println(shouldChangeWater("Monday", 1, 1, 0)) // Devuelve false

    // Ejemplo de llamada a la función solo con el parámetro requerido
    println(shouldChangeWater("Tuesday")) // Devuelve false, ya que los valores predeterminados no cumplen la condición
}
```

```
true
false
```

```
false
false
```

Question 3

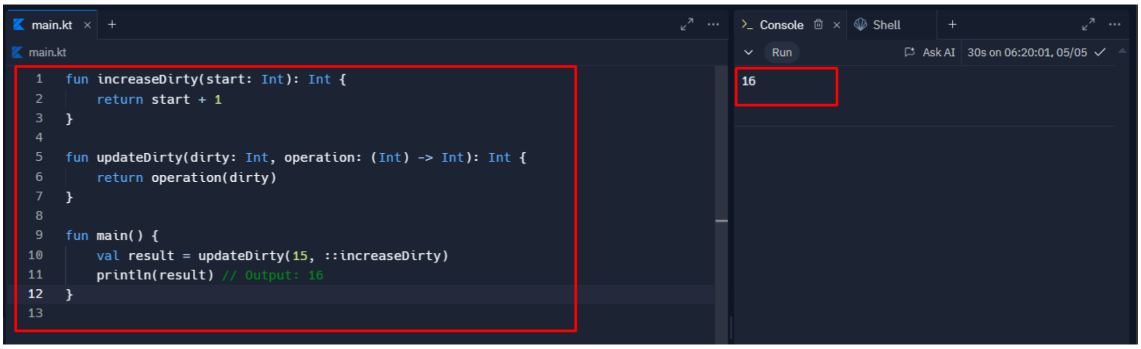
You can pass a regular named function (not the result of calling it) to another function. How would you pass increaseDirty(start: Int) = start + 1 to updateDirty(dirty: Int, operation: (Int) -> Int)?

updateDirty(15, &increaseDirty())

updateDirty(15, increaseDirty())

updateDirty(15, ("increaseDirty()"))

updateDirty(15, ::increaseDirty)



```kotlin
fun increaseDirty(start: Int): Int {
    return start + 1
}

fun updateDirty(dirty: Int, operation: (Int) -> Int): Int {
    return operation(dirty)
}

fun main() {
    val result = updateDirty(15, ::increaseDirty)
    println(result) // Output: 16
}
```

```
16
```