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Kelas : IF 06 SC1

Modul Praktikum 2

1. Hello World

```
/**
 * You can edit, run, and share this code.
 * play.kotlinlang.org
 */

fun main() {
    val name = "IT Telkom Purwokerto"
    print("Hai saya sedang ada di ")
    println(name)
    print(if (true) "Always true" else "Always false")
}
```

```
Hai saya sedang ada di IT Telkom Purwokerto
Always true
```

2. Data Type

```
fun main() {  
    val kataAwal = "Saya"  
    val kataAkhir = "Hebat"  
    val nilaiA: Int = 10  
    val nilaiB = 20  
    print(nilaiA + nilaiB)  
    print("\n")  
    print(kataAwal + kataAkhir)  
}
```

```
30  
SayaHebat
```

```
fun main() {  
    ! var kampus: String = " IT Telkom"  
    ! kampus = " IT Telkom Purwokerto"  
    ! val jurusan: String = "Teknik"  
    ! jurusan = "Teknik Informatika"  
}
```

```
! Val cannot be reassigned
```

3. Characters

```
fun main() {  
    var vocal = 'A'  
    vocal++  
    println("Vocal " + vocal++)  
    println("Vocal " + vocal++)  
    println("Vocal " + vocal++)  
    println("Vocal " + vocal--)  
    println("Vocal " + vocal--)  
    println("Vocal " + vocal--)  
    println("Vocal " + vocal--)  
}
```

```
Vocal B  
Vocal C  
Vocal D  
Vocal E  
Vocal D  
Vocal C  
Vocal B
```

4. Array

```
import java.util.Arrays

fun main() {
    val array = arrayOf(1, 3, 5, 7)
    val mixArray = arrayOf(1, 3, 5, 7, "Informatika", true)
    val intArray = intArrayOf(1, 3, 5, 7)
    ! val intArray2 = Array(4, { i -> i * i })
    print(array[2])
    print("\n")
    print(mixArray[2])
    print("\n")
    print(intArray[2])
    print("\n")
    print(Arrays.toString(mixArray))
}

5
5
5
[1, 3, 5, 7, Informatika, true]
```

5. Function

```
fun main() {  
    val user = setUser("Tony Stark", 19)  
    println(user)  
    printUser("Tony Stark ")  
}  
  
fun setUser(name: String, age: Int) = "Your name is $name, and you $age years old"  
fun printUser(name: String) {  
    println("Your name is $name")  
}
```

Your name is Tony Stark, and you 19 years old
Your name is Tony Stark

6. If Expression

```
fun main(){  
    val openHours = 7  
    val now = 7  
    val office: String  
  
    office = if (now > 7) {  
        "Kantin sedang buka"  
    } else if (now == openHours){  
        "Mohon tunggu, kantin sedang disiapkan"  
    } else {  
        "Kantin sedang tutup"  
    }  
  
    print(office)  
}
```

Mohon tunggu, kantin sedang disiapkan

7. Elvis Operator

```
fun main() {  
    val text: String? = null  
    val textLength = text?.length ?: 7  
  
    val score: Int? = null  
  
    println(textLength)  
    print(score?:89)  
}
```

```
7  
89
```

8. String Template

```
fun main() {  
    val name = "Tony Stark"  
    val old = 3  
    val hour = 7  
    println("My name is $name, im $old years old")  
    println("Office ${if (hour > 7) "already close" else "is open"}")  
}
```

```
My name is Tony Stark, im 3 years old  
Office is open
```

9. When Expression

```
fun main() {  
    val value = 20  
  
    when(value){  
        6 -> println("value is 6")  
        7 -> println("value is 7")  
        8 -> println("value is 8")  
        else -> println("value cannot be reached")  
    }  
  
    val value2 = 27  
    val ranges = 10..50  
  
    when(value2){  
        in ranges -> println("value is in the range")  
        !in ranges -> println("value is outside the range")  
        else -> println("value undefined")  
    }  
}
```

```
value cannot be reached  
value is in the range
```

10. While Expression

```
fun main() {  
    var counter = 1  
  
    do {  
        println("Hello, World!")  
        counter++  
    } while (counter <= 7)  
}
```

```
Hello, World!  
Hello, World!  
Hello, World!  
Hello, World!  
Hello, World!  
Hello, World!  
Hello, World!
```

```

fun main() {
    var counter = 1

    while (counter <= 7){
        println("Hello, World!")
        counter++
    }
}

```

```

Hello, World!
Hello, World!
Hello, World!
Hello, World!
Hello, World!
Hello, World!
Hello, World!

```

11. For Loop

```

fun main() {
    val ranges = 1.rangeTo(10) step 3

    for ((index, value) in ranges.withIndex()) {
        println("value $value with index $index")
    }
}

```

```

value 1 with index 0
value 4 with index 1
value 7 with index 2
value 10 with index 3

```



```
fun main() {  
    val ranges = 1.rangeTo(10) step 3  
  
    for (i in ranges ){  
        println("value is $i!")  
    }  
}
```

```
value is 1!  
value is 4!  
value is 7!  
value is 10!
```