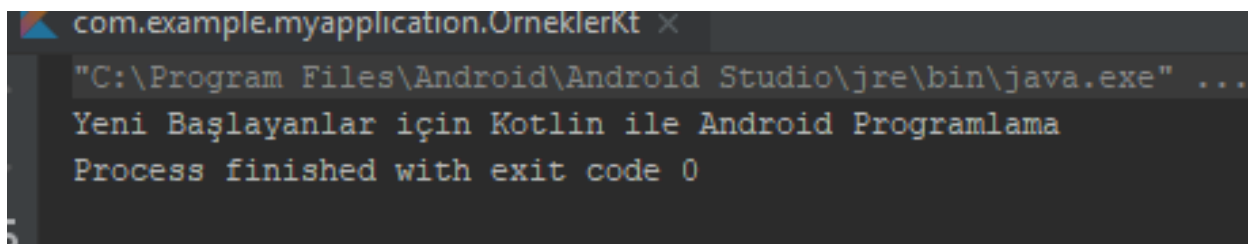


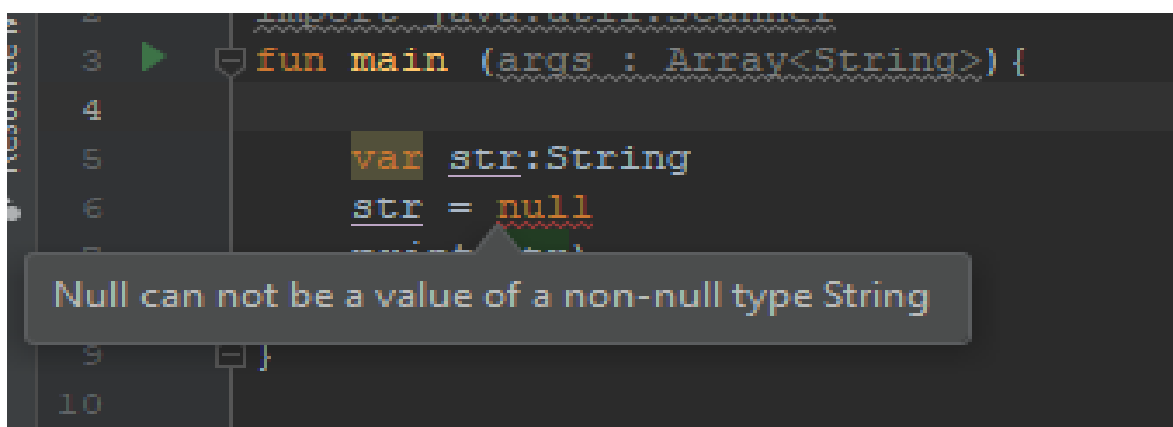
4

NULL POINTER EXCEPTION HATASI

```
fun main (args : Array<String>){  
  
    var str : String = "Yeni Başlayanlar için Kotlin ile  
    Android Programlama "  
    print(str)  
  
}
```



```
*****  
fun main (args : Array<String>){  
  
    var str:String  
    str = null  
    print(str)  
  
}
```



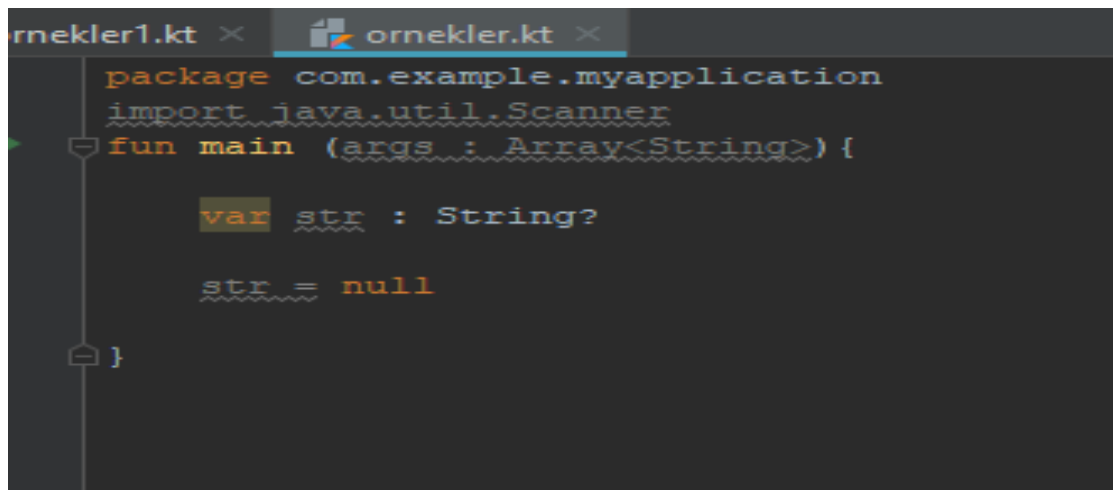
NULL – NULL SAFETY

Non-Null Type(Null Olamayan Tip)

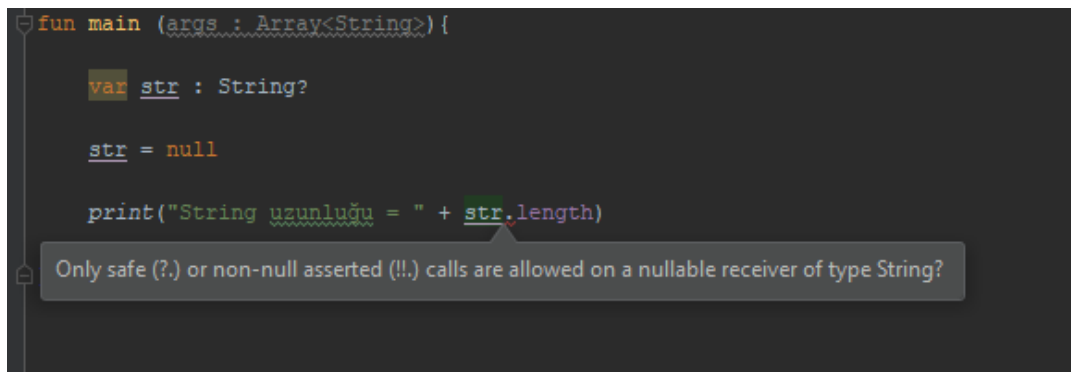
```
fun main (args : Array<String>){  
  
    var str : String = "KOTLIN"  
    var num : Int = 26  
    var str1 : String  
    var num1 : Int  
}
```

Nullable Type(Null Olabilen Tip)

```
fun main (args : Array<String>){  
  
    var str : String?  
  
    str = null  
}
```

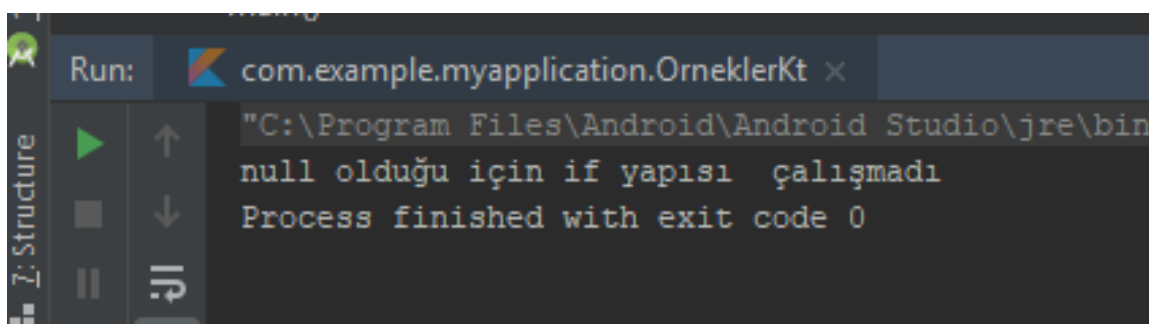


```
fun main (args : Array<String>){  
  
    var str : String?  
  
    str = null  
  
    print("String uzunluđu = " + str.length)  
}
```



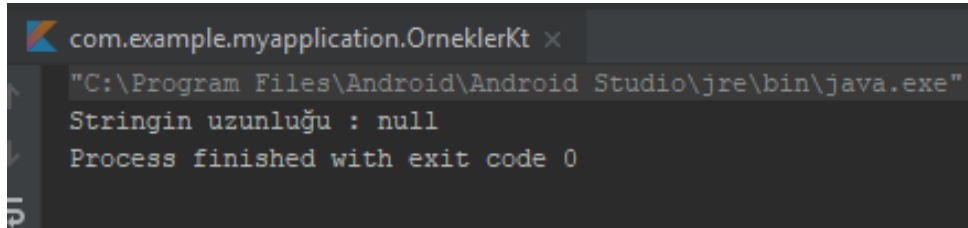
1. if Yapısı ile Null Kontrolü

```
fun main (args : Array<String>){  
    var str : String?  
    str = null  
    if(str != null){  
        print("String uzunluğu = " + str.length)}  
    else  
        print("null olduğu için if yapısı çalışmadı")  
}
```

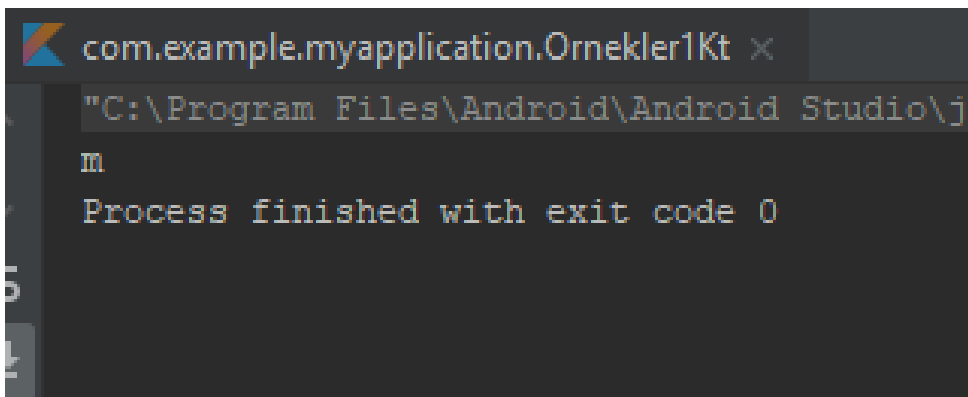


2. Safe Call Operatörünün Kullanımı(?)

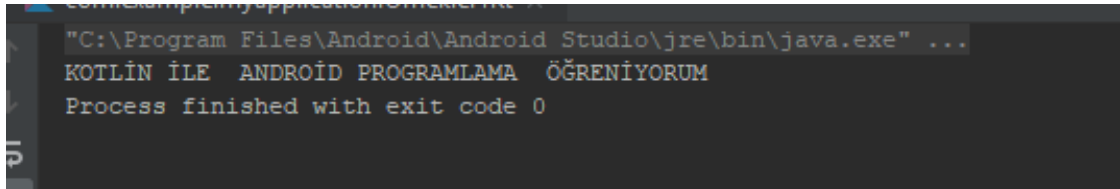
```
fun main (args : Array<String>){  
  
    var str : String ? = "Kotlin ile Android Öğreniyorum!"  
    str = null  
    print("Stringin uzunluğu : "+str?.length)  
  
}
```



```
fun main(args: Array<String>) {  
  
    val str: String? = "KOTLIN ÖĞRENİYORUM"  
  
    val deger: String? =  
    str?.toLowerCase()?.substring(17)?.replace("k","c")  
  
    print(deger)  
  
}
```



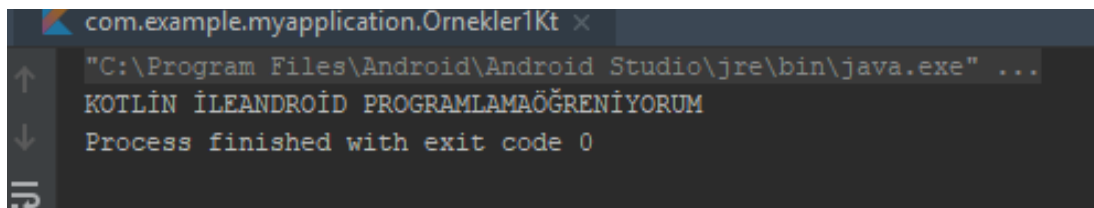
```
fun main(args: Array<String>) {
    val str: String = "  ANDROID PROGRAMLAMA  "
    print("KOTLİN İLE" +str+"ÖĞRENİYORUM")
}
```



```
"C:\Program Files\Android\Android Studio\jre\bin\java.exe" ...
KOTLİN İLE  ANDROID PROGRAMLAMA  ÖĞRENİYORUM
Process finished with exit code 0
```

```
fun main(args: Array<String>) {
    val str: String = "  ANDROID PROGRAMLAMA  "

    print("KOTLİN İLE" +str.trim()+"ÖĞRENİYORUM")
}
```



```
com.example.myapplication.Ornekler1Kt x
"C:\Program Files\Android\Android Studio\jre\bin\java.exe" ...
KOTLİN İLEANDROID PROGRAMLAMAÖĞRENİYORUM
Process finished with exit code 0
```

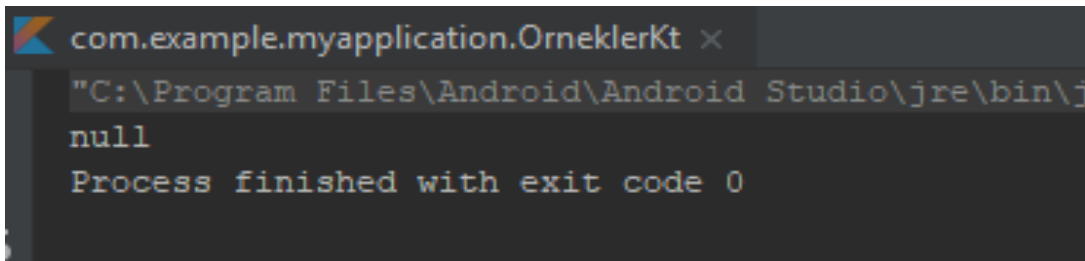
```
package com.example.myapplication
import java.util.Scanner

private val String?.ogrenci_ismi: String?
    get() {return "Ceren"}
private val String?.okul: String?
    get() {return "Bursa Teknik Üniversitesi"}
private val String?.bolum: String?
    get() {return null}
```

```

fun main(args: Array<String>) {
    val sehir: String? = "Bursa"
    print(sehir?.okul?.bolum?.ogrenci_ismi.toString())
}

```



```

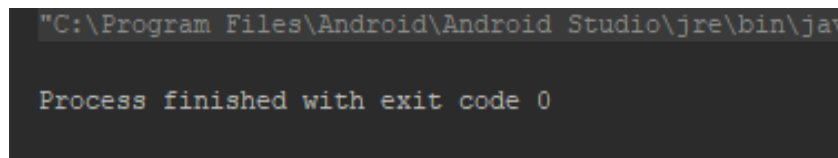
com.example.myapplication.OrneklerKt x
"C:\Program Files\Android\Android Studio\jre\bin\java"
null
Process finished with exit code 0

```

```

fun main(args: Array<String>) {
    val str: String? = null
    str?.let{ print(it.toUpperCase())}
}

```



```

"C:\Program Files\Android\Android Studio\jre\bin\java"
Process finished with exit code 0

```

3. Elvis Operatörü(?:)

```

fun main(args: Array<String>) {
    val str: String? = null
    val uzunluk = str?.length ?: 0
    print(uzunluk)
}

```

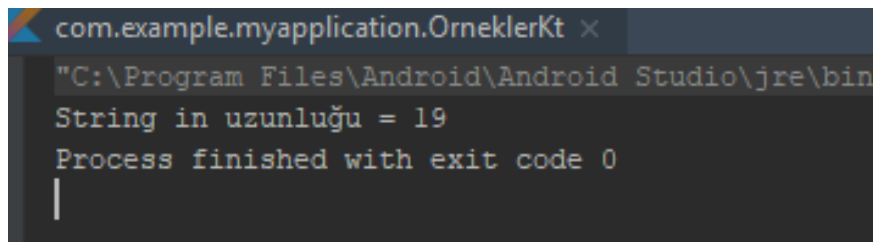
```
"C:\Program Files\Android\Android Studio\jr  
0  
Process finished with exit code 0
```

```
fun main(args: Array<String>) {  
  
    val str: String? = null  
  
    val uzunluk : Int  
    if(str != null){  
  
        uzunluk = str.length  
    }  
    else  
    {  
        uzunluk = 0  
    }  
  
    print(uzunluk)  
}
```

```
fun main(args: Array<String>) {  
  
    val str: String? = null  
    val uzunluk = str?.length ?: throw  
    IllegalArgumentException("Dikkat")  
    print(uzunluk)  
}
```

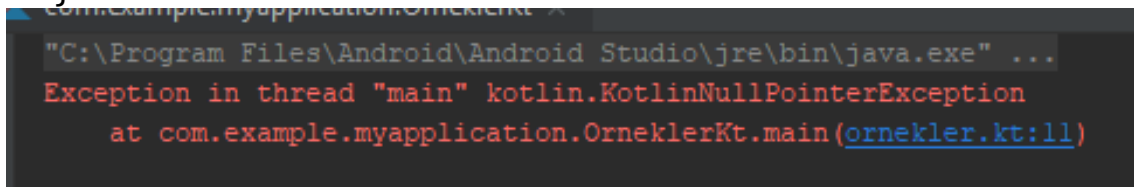

4. !! Operatörü

```
fun main(args: Array<String>) {  
    val str: String? = "Kotlin Öğreniyorum!"  
  
    print("String in uzunluğu = " + str!!.length)  
  
}
```



```
com.example.myapplication.OrneklerKt x  
"C:\Program Files\Android\Android Studio\jre\bin\  
String in uzunluğu = 19  
Process finished with exit code 0  
|
```

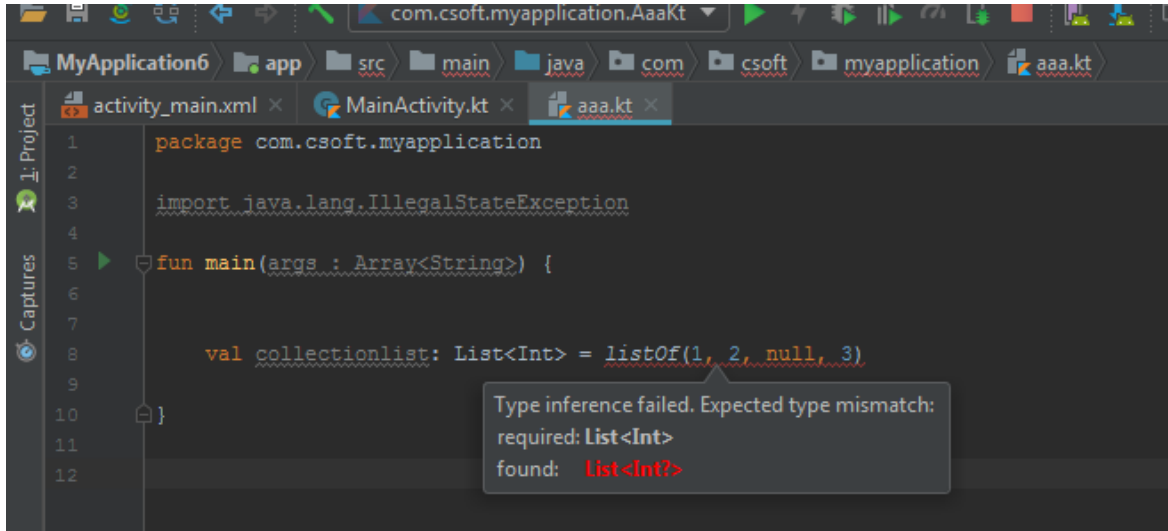
```
fun main(args: Array<String>) {  
    val str: String? = null  
  
    print("String in uzunluğu = " + str!!.length)  
  
}
```



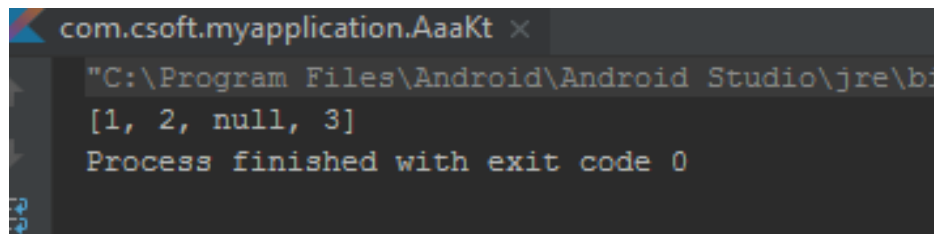
```
com.example.myapplication.OrneklerKt x  
"C:\Program Files\Android\Android Studio\jre\bin\java.exe" ...  
Exception in thread "main" kotlin.KotlinNullPointerException  
    at com.example.myapplication.OrneklerKt.main(ornekler.kt:11)
```

NULLABILITY VE KOLEKSİYONLAR

1. Null Değer Alabilen Koleksiyonlar



```
fun main(args : Array<String>) {  
    val collectionlist: List<Int?> = listOf(1, 2, null, 3)  
  
    print(collectionlist)  
}
```



```
fun main(args : Array<String>) {  
  
    val collectionlist: List<Int?> = listOf(1, 2, null, 3)  
  
    val collectionlist1: List<Int> =  
collectionlist.filterNotNull()  
    println("collectionlist = " +collectionlist)  
    print("collectionlist1 = " +collectionlist1)  
}
```

```
com.esort.myapplication.Aaakl x
"C:\Program Files\Android\Android Studio\jre\bin\java.exe" .
collectionlist = [1, 2, null, 3]
collectionlist1 = [1, 2, 3]
Process finished with exit code 0
```

2. Null Olabilen Koleksiyonlar

```
fun main(args : Array<String>) {
    var collectionlist: List<Int?> = listOf(1, 2, null, 3)
    collectionlist = null
    println("collectionlist = " +collectionlist)
}
```

```
fun main(args : Array<String>) {
    var collectionlist: List<Int?> = listOf(1, 2, null, 3)
    collectionlist = null
    println("collectionlist = " +collectionlist)
}
```

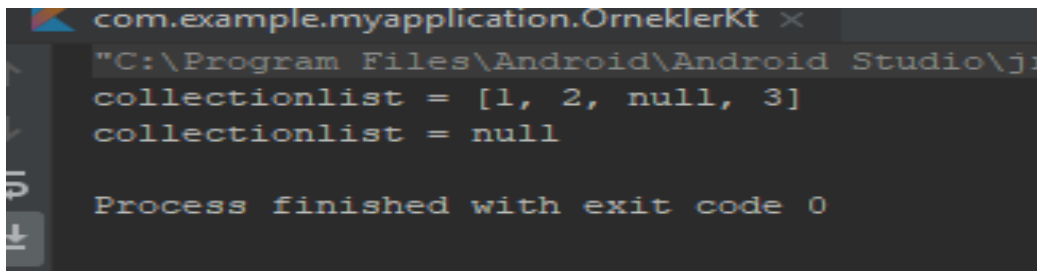
Null can not be a value of a non-null type List<Int?>

```
fun main(args : Array<String>) {
    var collectionlist: List<Int>? = listOf(1, 2, 3)
    collectionlist = null
    println("collectionlist = " +collectionlist)
}
```

```
com.example.myapplication.OrneklerKt x
"C:\Program Files\Android\Android Studio\jre\bin\java.exe" ..
collectionlist = null
Process finished with exit code 0
```

3. Hem Null Değer Alabilen Hem Null Olabilen Koleksiyonlar

```
fun main(args : Array<String>) {  
  
    var collectionlist: List<Int?>? = listOf(1, 2, null, 3)  
    println("collectionlist = " +collectionlist)  
  
    //Koleksiyonu Null yapıyoruz  
  
    collectionlist = null  
  
    println("collectionlist = " +collectionlist)  
  
}
```



```
com.example.myapplication.OrneklerKt x  
"C:\Program Files\Android\Android Studio\j  
collectionlist = [1, 2, null, 3]  
collectionlist = null  
  
Process finished with exit code 0
```

NULL SAFETY VE JAVA BİRLİKTE ÇALIŞILABİLİRLİĞİ

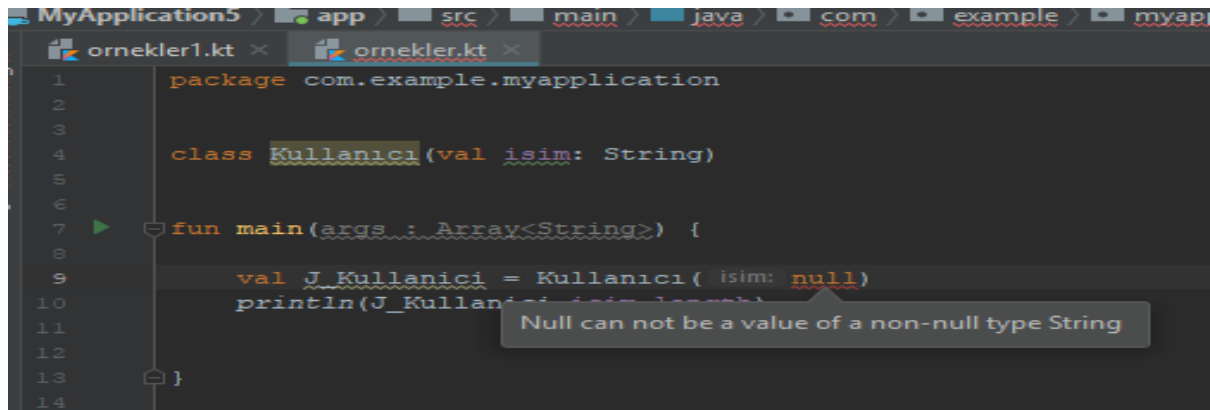
```
public class Kullanıcı {  
    private final String isim;  
    public Kullanıcı(String isim1) {  
        this.isim = isim1; }  
    public String getName(){  
        return isim; }  
}
```

```

fun main(args : Array<String>) {

    val J_Kullanici = Kullanici(null)
    println(J_Kullanici.isim.length)
}

```



```

class Kullanici(val isim: String?)

fun main(args : Array<String>) {

    val J_Kullanici = Kullanici(null)

    println(J_Kullanici.isim?.length)
}

```

