"Hello, World!" example

"Hello, Kotlin" example

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
Hello, Kotlin!
```

New keywords: fun, val

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
```

New keywords: fun, val

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
```

No class

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
Hello.kt
```

You can define functions at the top level

Arrays

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
```

Array looks like a regular class

if expression

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
```

if is an expression

String templates

```
package intro

fun main(args: Array<String>) {
    val name = if (args.size > 0) args[0] else "Kotlin"
    println("Hello, $name!")
}
Hello, Kotlin!
```

String templates: easy way to insert a value into a String

String templates

```
"...$variable..."

"...${functionCall(...)}..."

fun main(args: Array<String>) {
    println("Hello, ${args.getOrNull(0)}!")
}
```



What will be printed if no arguments are passed?

```
fun main(args: Array<String>) {
    println("Hello, ${args.getOrNull(0)}!")
}
```

- 1. Hello, null!
- 2. Hello, !
- 3. NPE will be thrown





What will be printed if no arguments are passed?

```
fun main(args: Array<String>) {
    println("Hello, ${args.getOrNull(0)}!")
}
```

- 1. Hello, null!
- 2. Hello, !
- 3. NPE will be thrown

Works as in Java

```
public static void main(String[] args) {
    System.out.println("Hello, " + null + "!");
}
```

Hello, null!

```
fun main(args: Array<String>) {
    println("Hello, ${null}!")
}
Hello, null!
```



What will be printed?

```
fun foo(): String {
    println("Calculating foo...")
    return "foo"
fun main(args: Array<String>) {
   println("First ${foo()}, second ${foo()}")
```

Calculating foo...

Calculating foo...

First foo, second foo

Calculating foo...

First foo, second foo





What will be printed?

```
fun foo(): String {
    println("Calculating foo...")
    return "foo"
}

fun main(args: Array<String>) {
    println("First ${foo()}, second ${foo()}")
}
```

Calculating foo...
Calculating foo...
First foo, second foo

Calculating foo...

First foo, second foo