

# Swift Macros {

"The key to efficient  
and elegant code"

}



```
1 public struct Ibrahima {
```

```
2     🇸🇳 Senegal
```

```
3     🧑💻 Freelance/Indie iOS Developer
```

```
4     🐦 bionik6 almost everywhere
```

```
5     📺 iosmasterydev Youtube
```

```
6 }  
7  
8  
9  
10  
11  
12  
13  
14
```





```
1 public struct Acknowledgments {  
2  
3     "Thank you for Phil and the conference  
4     organizers, and thank you for attending  
5     my session"  
6  
7  
8  
9  
10  
11  
12 }  
13  
14
```

```
1 public enum Agenda {  
2  
3  
4     case Swift macros: what are they?  
5  
6     case macro types  
7  
8     case building our own macro  
9  
10    case shortcomings  
11  
12 }  
13  
14
```

```
1 #define "Swift Macro";
```

```
2  
3  
4  
5 "Swift Macros are compiler plugins that extend the  
6 Swift language, and can help you generate code at  
7 compile-time to eliminate boilerplate code."  
8  
9  
10  
11  
12  
13  
14
```

1 #why-use "Swift Macro"?  
2  
3  
4  
5

6 "They can to perform custom compile-time checks,  
7  
8 emit helpful compiler errors"  
9  
10  
11  
12  
13  
14

```
1
2
3 public enum MacroType {
4
5     case freestanding
6
7     case attached
8
9
10
11 }
12
13
14
```

```
1 #define "Freestanding macros";
```

```
2  
3  
4  
5 "Appear on their own, without being  
6 attached to a declaration. They always  
7 start with the # sign and return a value."  
8  
9  
10  
11  
12  
13  
14
```



```
1
2
3 public enum FreestandingMacro {
4
5
6     case @freestanding(expression)
7
8     case @freestanding(declaration)
9
10
11 }
12
13
14
```

```
1 #define "Attached macros";
```

```
2  
3  
4  
5  
6 "Modify the declaration that they're attached  
7 to. They always start with the @ sign."  
8  
9  
10  
11  
12  
13  
14
```

```
1 public enum AttachedMacro {  
2  
3     case @attached(peer)  
4  
5     case @attached(accessor)  
6  
7     case @attached(memberAttribute)  
8  
9     case @attached(member)  
10  
11     case @attached(conformance)  
12  
13 }  
14
```

Building our own macro 🚀

Xcode Prime Time 🧑💻

```
1
2
3 public enum MacroShortcoming {
4
5     case SwiftSyntaxDifficultToMaster
6
7     case NotTrivialToDebug
8
9     case TestingCanBeExtremelyPainful
10
11 }
12
13
14
```



```
1 public enum Recap {
2
3
4     case whatAreMacroAndWhyUseThem
5
6     case differentTypesOfMacro
7
8     case creatingAndUsingAMacro
9
10    case macroShortcoming
11
12 }
```

```
1 public struct Resource {  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13 }  
14
```



"Ultimate resource to learn  
more about Swift macros"

```
1
2
3 public struct Contact {
4
5     static let twitter/x = "bionik6"
6
7     static let linkedin = "bionik6"
8
9     static let youtube = "iosdevmastery"
10
11 }
12
13
14
```

1

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# Questions?