

# **Unit 1 — Lesson 1:**

## **Introduction to Swift and Playgrounds**

# A little history



# A modern language



SAFE

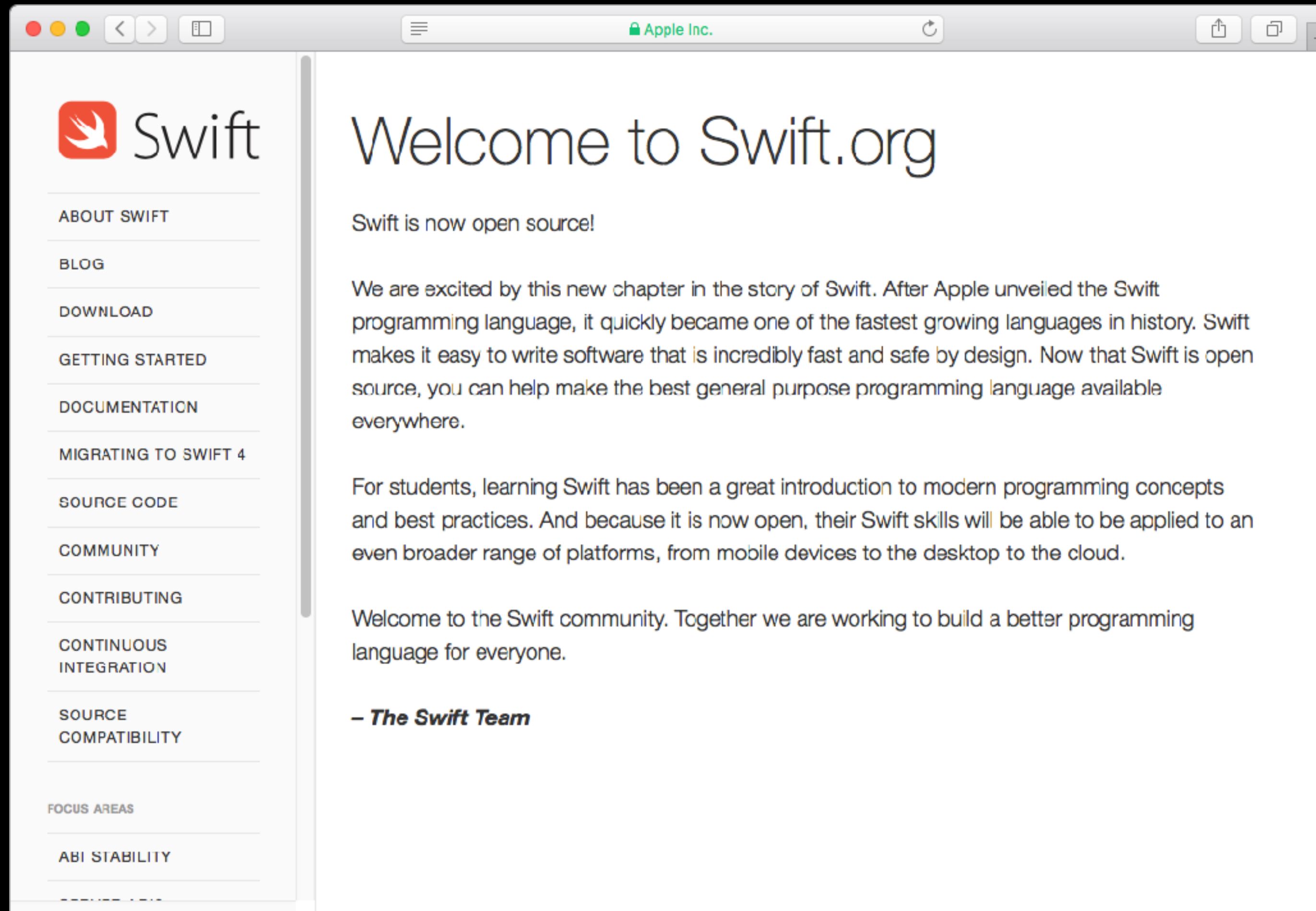
FAST

EXPRESSIVE

# A safe language

- Explicit object "types"
- Type inference
- Optionals
- Error handling

# Open Source



# Hello, world

```
print("Hello, world!")
```



main.swift

# Hello, world



1. Open Terminal
2. Type `swift` and press Enter
3. Type `print("Hello, world!")` and press Return
4. Type `:quit` and press Return
5. Quit Terminal

# Playgrounds



```
Ready | Today at 8:59 AM

Message Test

7   Date()
8   ]
9
10  struct Message {
11      let from: String
12      let contents: String
13      let date: Date
14  }
15
16  let messages = [
17      Message(from: "Sandy", contents: "Hey, what's going on tonight?", date: messageDates[0]),
18      Message(from: "Michelle", contents: "Studying for Friday's exam. You guys aren't?", date: messageDates[1]),
19      Message(from: "Christian", contents: "Nope. That's what tomorrow is for. Let's get food, I'm hungry!",
20              date: messageDates[2]),
21      Message(from: "Michelle", contents: "Maybe. What do you want to eat?", date: messageDates[3])
22  ]
23  extension Message: CustomDebugStringConvertible {
24      public var debugDescription: String {
25          return "[\\(date) From: \\(from)] \\(contents)"
26      }
27  }
28
29  debugPrint(messages[0])
30
31  let dateFormatter = DateFormatter()
32  dateFormatter.doesRelativeDateFormatting = true
33  dateFormatter.dateStyle = .short
34  dateFormatter.timeStyle = .short
35
36  extension Message: CustomStringConvertible {
37      public var description: String {
38          return "\\(contents)\\n \\(from) \\(dateFormatter.string(from: date))"
39      }
40  }
```

[[from "Sandy", contents "Hey, what's going...

(25 times)

"[2016-12-07 16:19:56 +0000 From: Sandy]..."

<NSDateFormatter: 0x610000045380>  
<NSDateFormatter: 0x610000045380>  
<NSDateFormatter: 0x610000045380>  
<NSDateFormatter: 0x610000045380>

(4 times)

hey, what's going on tonight?  
Sandy Today, 8:19 AM  
Studying for Friday's exam. You guys aren't?  
Michelle Today, 8:28 AM  
Nope. That's what tomorrow is for. Let's get food, I'm hungry!  
Christian Today, 8:44 AM  
Maybe. What do you want to eat?  
Michelle Today, 8:53 AM



# Hello, world



1. Open Xcode
2. Choose File > New > Playground
3. Select iOS, select the Blank template and click Next
4. Name the playground "Hello, world!"
5. Click Create to save the playground
6. Add `print("Hello, world!")`
7. Replace `"Hello, world!"` with `str`

# Unit 1 — Lesson 1



Open and complete the exercises in Lab – `Introduction.playground`

