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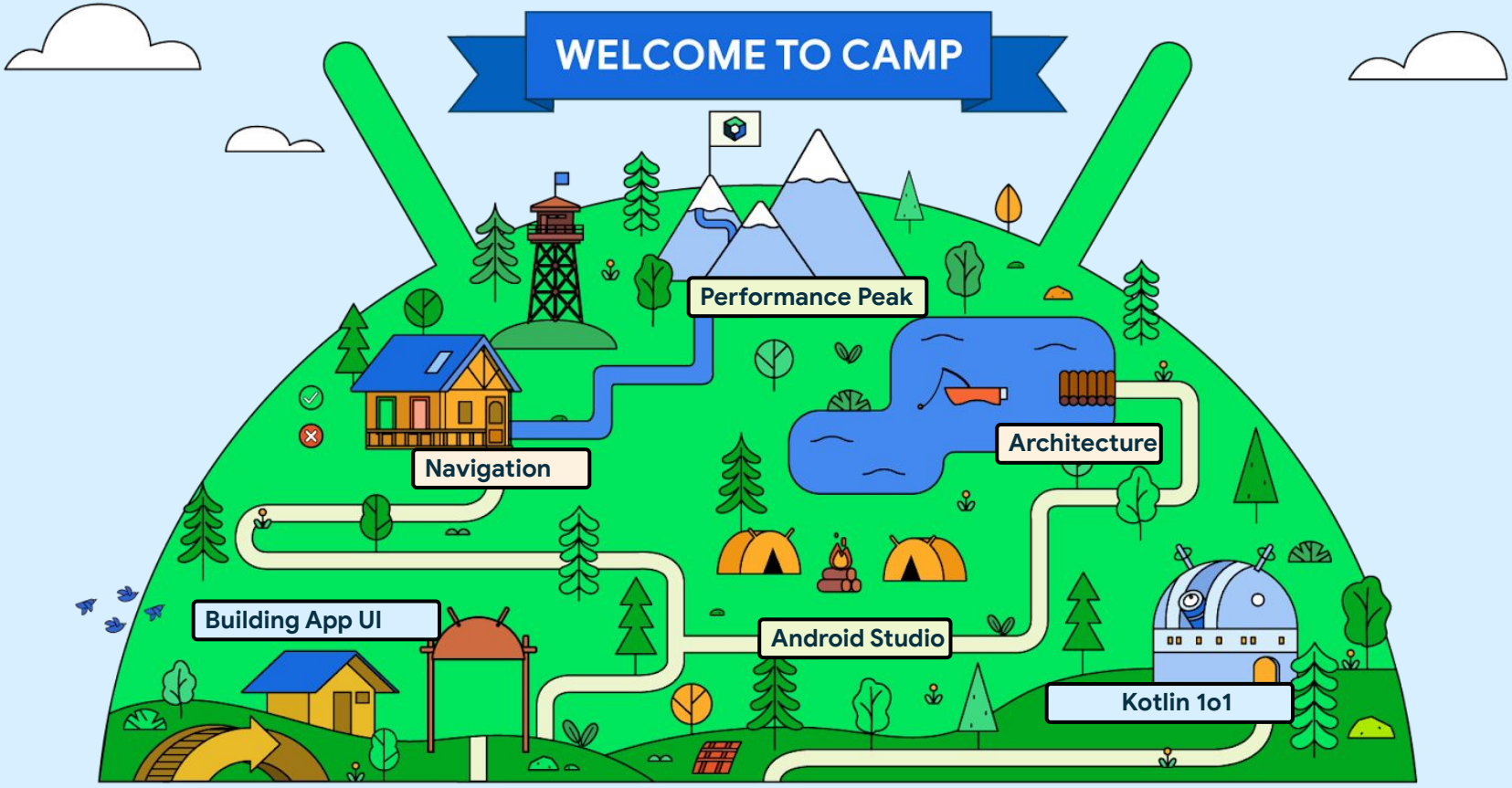
GDSC Lead

Kotlin Playgrounds:
App Development 1o1

Tuesday September 13 | 6pm IST


WELCOME TO CAMP
Performance Peak
Navigation
Architecture
Building App UI
Android Studio
Kotlin 1o1

Compose Camp

Android Basics with Compose

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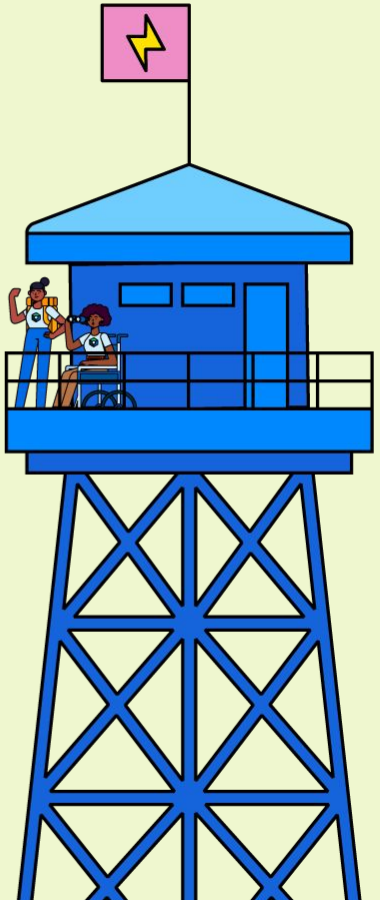
What is Compose Camp?

Compose Camp is a hands-on introduction to learning how you can build Android apps with Jetpack Compose.



Prerequisites

- Basic computer literacy
- Basic math skills
- Computer & headphones
- Internet connection
- (Optional) Android device & USB cable

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Compose Camp Learning Objectives

- Build your first Android apps
- Set up Android Studio on your computer
- Learn the basics of the Kotlin programming language
- Learn Jetpack Compose
- Discover resources to continue learning

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1. Why are you here?

2. What are your goals?

3. How do you plan to achieve them?

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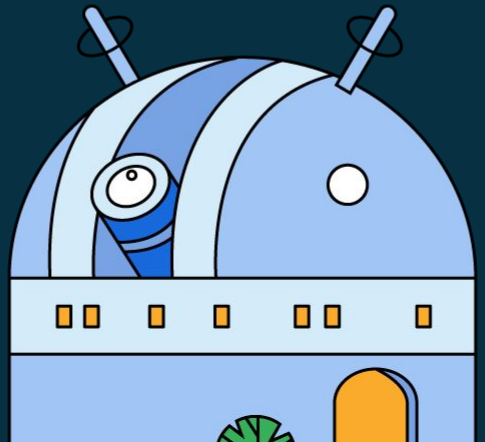
Important Links



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Today's Schedule

TOPIC	TIME
Presentation	18:00 - 19:30
Your first program in Kotlin	18:10 - 18:20
Create and use variables in Kotlin	18:20 - 18:30
Break	18:30 - 18:35
Create and use functions in Kotlin	18:35 - 18:45
Practice problems	18:45 - 18:50
Wrap up	18:50 - 18:55

Session Overview

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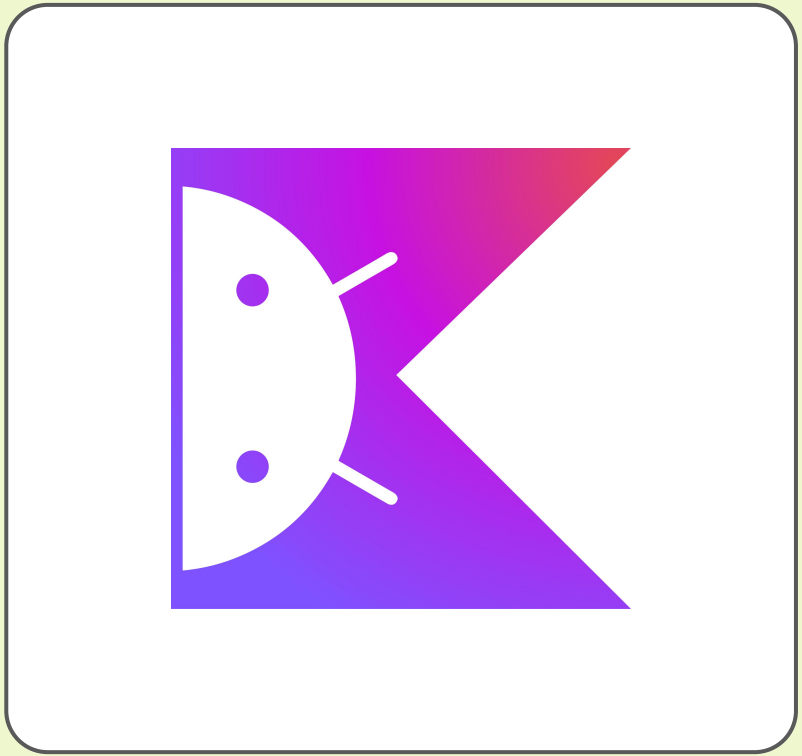
Kotlin Programming Language

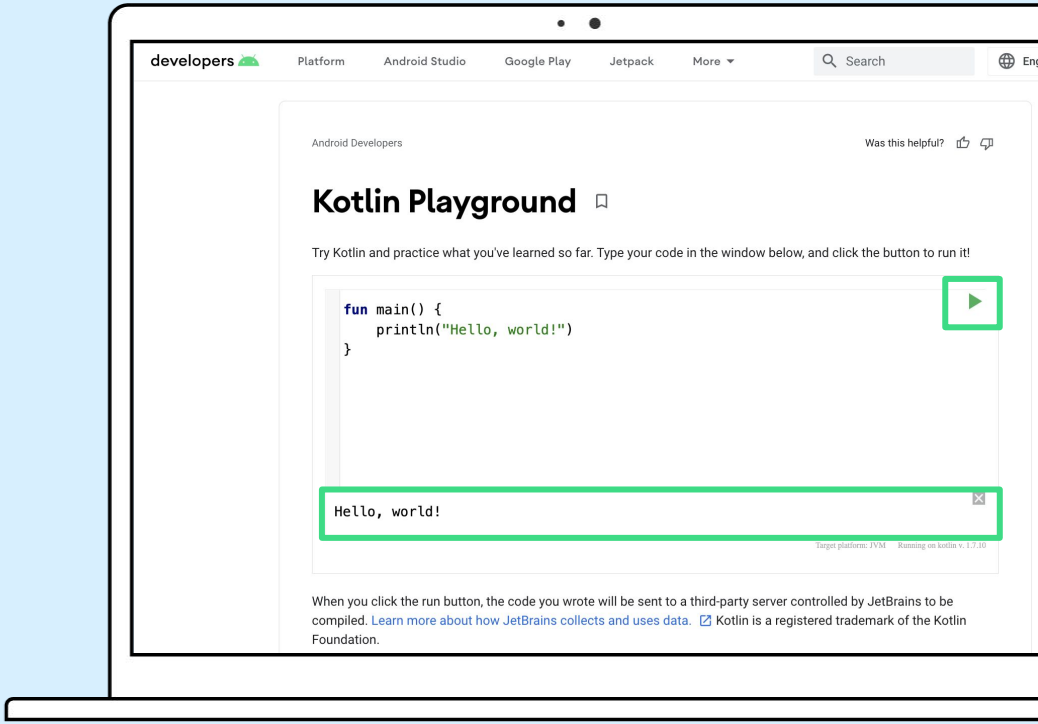
Use Kotlin to start writing Android apps.

Kotlin helps developers be more productive.



Kotlin Playground

Write and run Kotlin code in the browser.



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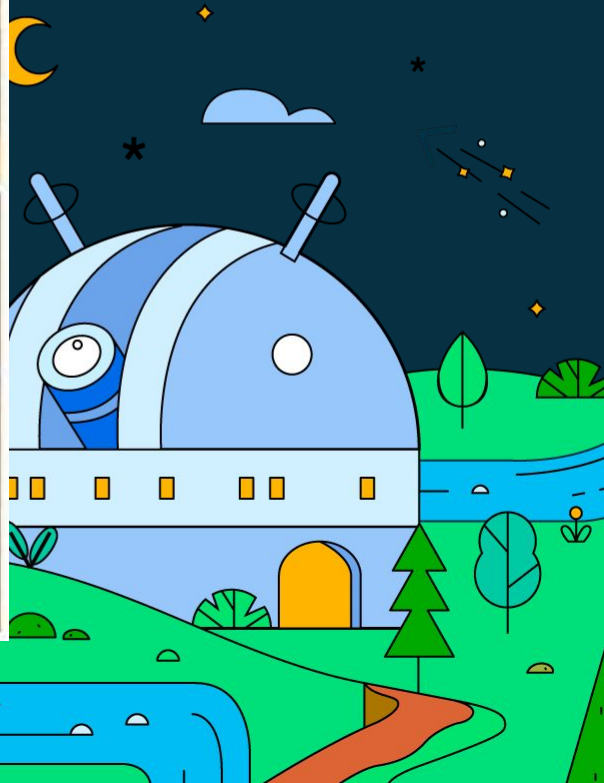

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Program

A series of instructions for a computer to perform some action.

```
fun main() {
    println("Hello, world!")
}
```

Output:

```
Hello, world!
```

Code

Step by step instructions for what the computer should do.

```
fun main() {
    println("Hello, world!")
}
```

Output:

```
Hello, world!
```

main Function

The main function is the entry point, or starting point, of the program.


```
fun main() {
    println("Hello, world!")
}
```

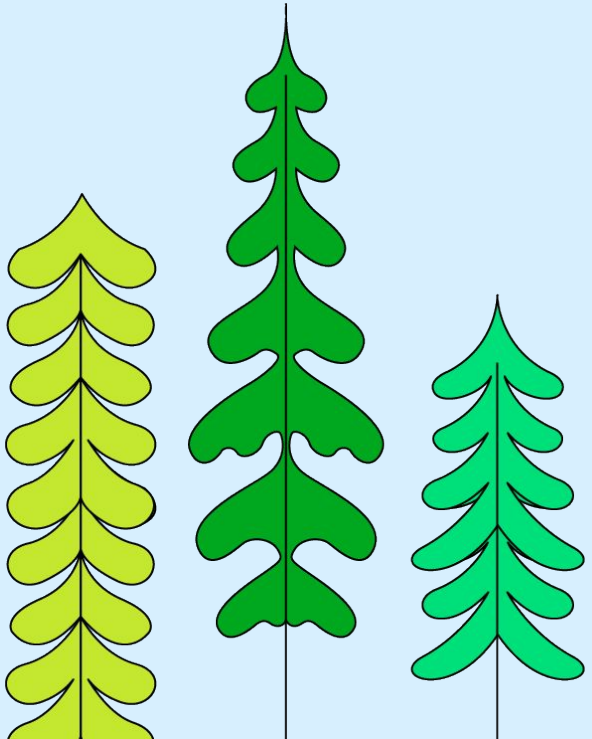
Output:

```
Hello, world!
```

Functions

A *function* is a segment of a program that performs a specific task.

You can have many functions in your program or only a single one.



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Defining a function

Functions begin with the `fun` keyword.

```
fun displayIntroduction() {

}
```


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Defining a function

Functions have a name so that they can be called.

```
fun displayIntroduction() {

}
```


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Defining a function

Functions need a set of parentheses after the function name in order to surround the function inputs.

```
fun displayIntroduction() {

}
```


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Defining a function

The curly braces make up the function body and contain the instructions needed to execute a task.

```
fun displayIntroduction() {

}
```


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Putting it together

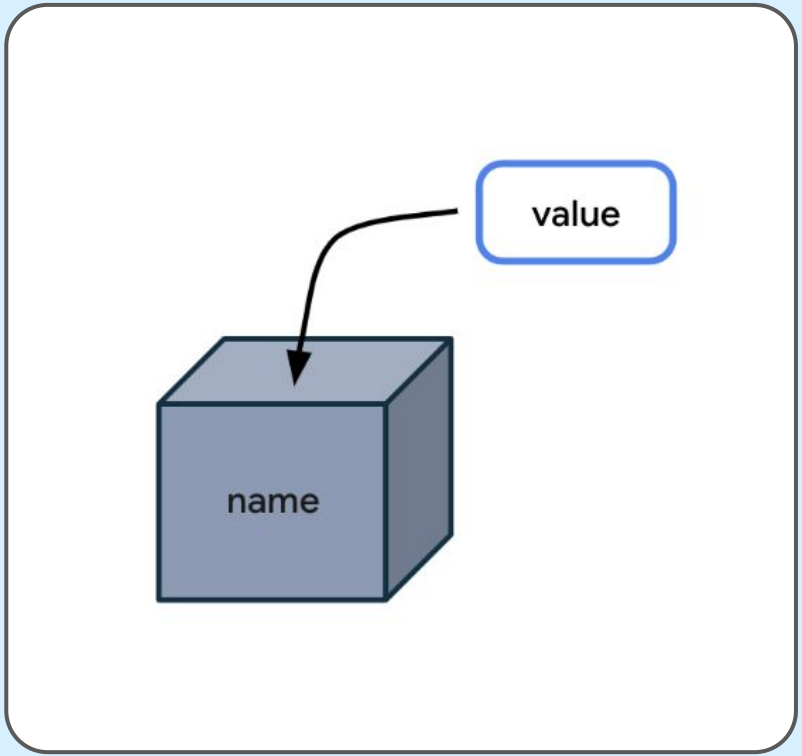
Output:

Hi I’m Meghan and I am 28 years old

```
fun displayIntroduction() {
    // We will fill this out!
}
```

Variables

A container for a single piece of data.



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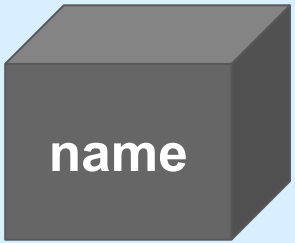
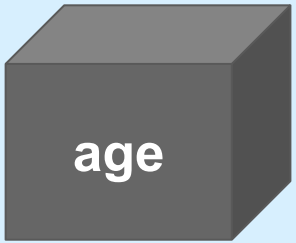
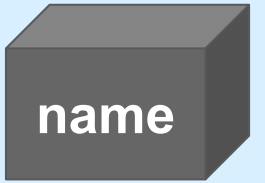
Variables

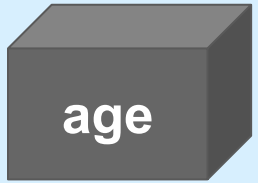
My name is 

and I am 

years old

Variables

My name is 

and I am 

years old

Name value: Meghan
Age value: 28

Output:
My name is Meghan and I am 28 years old

Name value: Janet
Age value: 49

Output:
My name is Janet and I am 49 years old

Basic data types

Kotlin Data type	What kind of data it can contain	Example literal values
String	Text	“Add contact” “Search”
Int	Whole integer number	32 -59873
Double	Decimal number	2.0 -37123.9999
Float	Decimal number (less precise than a Double). Has an f or F at the end of the number.	5.0f -1630.209f
Boolean	true or false. Use this data type when there are only two possible values.	true false

Defining a variable

val keyword

Use when you expect the variable value will not change.

Example: name

var keyword

Use when you expect the variable value can change.

Example: age

Defining a variable

Variables start with a **`var`** or **`val`** keyword.

```
fun displayIntroduction() {
    val name: String = "Meghan"
    var age: Int = 28
}
```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Defining a variable

All variables must have a name.

```
fun displayIntroduction() {
    val name: String = "Meghan"
    var age: Int = 28
}
```


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Defining a variable

Data type is the type of data that the variable holds.

```
fun displayIntroduction() {
    val name: String = "Meghan"
    var age: Int = 28
}
```


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Defining a variable

The initial value is the value that is stored in the variable.

```
fun displayIntroduction() {
    val name: String = "Meghan"
    var age: Int = 28
}
```


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Putting it together

```
fun displayIntroduction() {
    val name = "Meghan"
    val age = 28
    println("Hi I'm $name and I am $age years old")
}
```

Putting it together

```
fun main() {
    displayIntroduction()
}
fun displayIntroduction() {
    val name = "Meghan"
    val age = 28
    println("Hi I'm $name and I am $age years old")
}
```

Output:

Hi I’m Meghan and I am 28 years old

Break

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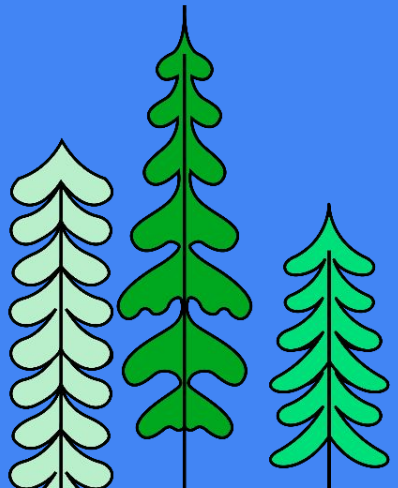
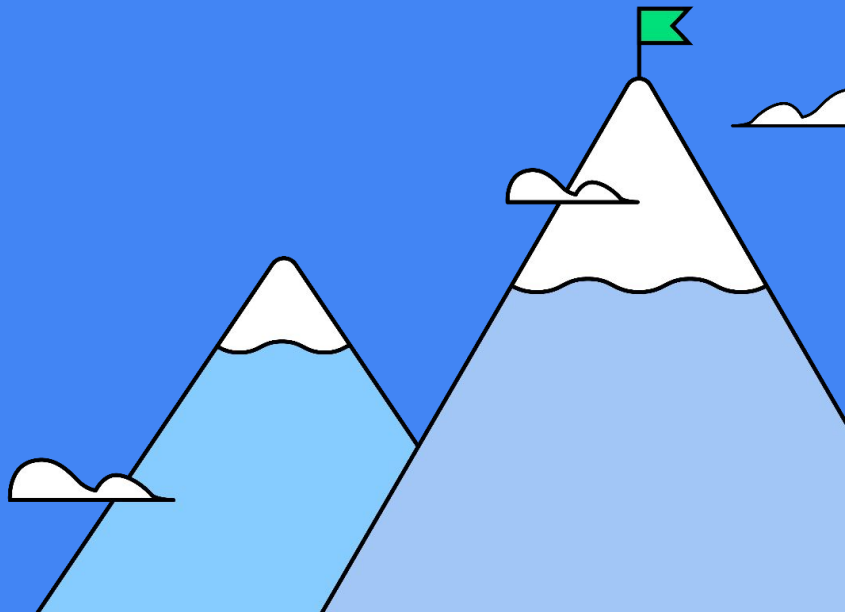
Welcome back

And congrats!

What’s coming next:





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#ComposeCamp

on social media

For a chance to be featured by Android, submit your tips on learning Compose to goo.gle/compose-tips

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