### The main() Function

Learn about the special main function as the entry point into your program.

# WE'LL COVER THE FOLLOWING ^ Anatomy of a main Function Quiz Exercises Summary

Every application requires an entry point where program execution is started. In most languages, including Kotlin, this is called the main function.

Kotlin also allows writing *script files* ( .kts file ending) which don't require an explicit main function, similar to Bash or Python scripts. When talking about an "application" above, such scripts are excluded.

In fact, even the code listings here on Educative require a main function, although you have not seen one yet. Up until this point, a main function was always hidden in code surrounding the code you saw in the listings. This is what enabled the code examples to run.

# Anatomy of a main Function #

The main function in Kotlin is simple:



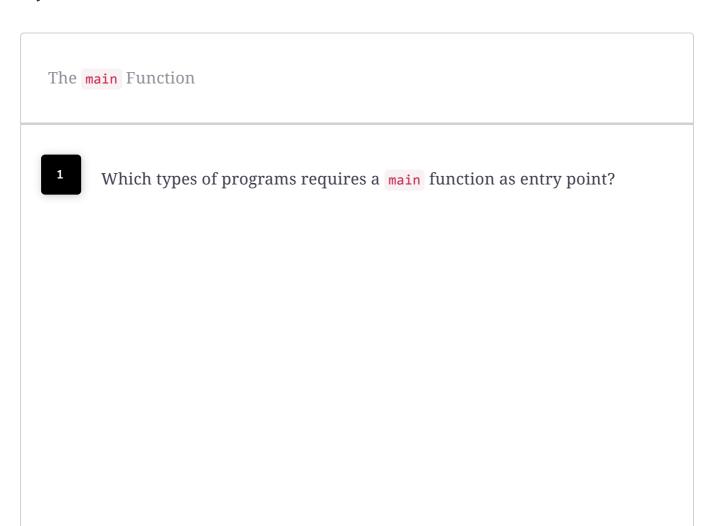
It has the simplest possible signature: no inputs and no outputs\*. This has been the case since Kotlin 1.3. Before that, an input parameter was required for command-line arguments:



Oftentimes, we don't need the command-line arguments in our code. In these cases, we can use the simpler signature.

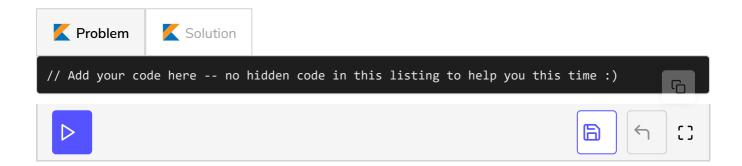
\*To be more specific, "no output" in Kotlin means that it returns Unit. However, this makes no difference for us at this point.

# Quiz #



### Exercises #

Populate the following code listing with your GCD implementation and a main function. In your main function, print the gcd(93, 27).



**Hint**: You can call your GCD function from within the main function.

## Summary #

Every Kotlin application you will write requires an entry point in the form of a main function.

- You can use the simple signature fun main() in most cases.
- To have access to any command-line with which your application was started (e.g., for configuration), you can use fun main(args: Array<String>).

Next up, you'll learn about Kotlin's shorthand notation for functions which can be a great tool to write concise but readable code.