

The Graphene Programming Language

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Chapter 1. Introduction

Graphene is statically typed language with automatic memory management, pattern matching, macros, and object oriented programming.

Chapter 2. Getting Started

2.1. Instalation

To install graphene you must have go 1.18 or greater and git installed then you can run these commands to build and install it

```
$ go install github.com/graphene-lang/graphene@latest
```

Now test that it's installed by running

```
$ graphene help
```

This should output a help message. If it doesn't make sure wherever go installs modules is in your \$PATH environment variable.

2.2. Your First Program

The classic hello world program in graphene is

```
fn main()
  println("Hello, world!")
end
```

Save this file to hello.graphene and run it with these commands

```
$ graphene build hello.graphene
$ ./hello
```

This should output Hello, world!

2.2.1. Anatomy of this program

To explain how this program works you must first look at the main declaration

```
fn main()
end
```

This is a function declaration it states that main is a function which takes no parameters. If there were parameters they would be placed in between the parenthesis. The main function is required in all programmes and is always run first. the line:

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

Calls the function `println` with the string "Hello, world!"; The `println` function prints the given argument followed by a newline.