

# GoogleTest

Pieter P

This page explains how to install the Google Test framework on Ubuntu.

## Install dependencies and tools

---

First, install GCC, CMake, GNU Make and Git if you haven't already.

```
$ sudo apt update
$ sudo apt install gcc g++ cmake make git
```

## Download, build and install

---

```
1  #!/usr/bin/env bash
2
3  # Script to download and install GoogleTest
4
5  set -ex
6
7  version="release-1.10.0" # Release tag on GitHub
8  prefix="$HOME/.local"
9
10 cd /tmp
11 # Download
12 git clone --single-branch --depth=1 --branch "$version" \
13     https://github.com/google/googletest.git
14 mkdir googletest/build && cd $_
15 # Configure
16 cmake .. -DCMAKE_INSTALL_PREFIX="$prefix" -DCMAKE_BUILD_TYPE=Release
17 # Build
18 make -j$(nproc)
19 # Install
20 make install
```

## Usage

---

To use GoogleTest in your project, you can use the following CMake snippet:

```
1  enable_testing()
2  find_package(GTest REQUIRED)
3  include(GoogleTest)
4
5  add_executable(test-exe test.cpp) # test.cpp contains TEST(...) cases
6  target_link_libraries(test-exe PRIVATE GTest::gtest_main)
7
8  if(NOT CMAKE_CROSSCOMPILING)
9      gtest_discover_tests(test-exe)
10 endif()
```

CMake has to find GoogleTest, so you need to make sure that `$HOME/.local` is in its search paths. See [Installing Locally](#).

## Tested on

---

- Ubuntu 19.10 - GoogleTest 1.10.0