

OOP_HW00_11012306

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Part 1: Installation result

The screenshot displays the Visual Studio Code interface with the following components:

- EXPLORER:** Shows the project structure with files `HelloWorld.cpp`, `HelloWorld.h`, `ut_all`, and `ut_main.cpp`.
- ut_main.cpp:** Contains C++ code using GoogleTest to test `PrintHelloWorld`.

```
1 #include <gtest/gtest.h>
2 #include "HelloWorld.h"
3
4 TEST(HELLOWORLD, PrintHelloWorld) {
5     string output = PrintHelloWorld();
6     string compare = "Hello World! \n";
7     ASSERT_EQ(output, compare);
8 }
9
10 int main(int argc, char **argv) {
11     testing::InitGoogleTest(&argc, argv);
12     return RUN_ALL_TESTS();
13 }
```
- makefile:** Defines build rules for `hello` and `ut_all`.

```
1 # REFINED VERSION
2 # This is the default target, which will be built when you type make
3 .PHONY: all
4 # Redefine the target all with the requirement of hello & ut
5 all: hello ut_all
6
7 # This rule tells make how to build HelloWorld from HelloWorld.cpp
8 hello: HelloWorld.cpp
9     g++ HelloWorld.cpp -o HelloWorld
10
11 # Thus rule tells make how to build ut_all from ut_main.cpp
12 ut_all: ut_main.cpp
13     g++ -std=c++11 -Wfatal-errors ut_main.cpp -o ut_all -lgtest
14
15 # This rule tells make to delete hello and hello.o
16 .PHONY: clean
17 clean:
18     rm -f HelloWorld
19     rm -f ut_all
20
```
- TERMINAL:** Shows the execution of `make` and `./ut_all`, resulting in a successful test run.

```
PS C:\Users\Yun Lee\NTUT-OOP\HW-EnvironmentSetup\HelloWorld> bash
sunnyleeyun@DESKTOP-791LC8D:/mnt/c/Users/Yun Lee/NTUT-OOP/HW-EnvironmentSetup/HelloWorld$ make
g++ HelloWorld.cpp -o HelloWorld
sunnyleeyun@DESKTOP-791LC8D:/mnt/c/Users/Yun Lee/NTUT-OOP/HW-EnvironmentSetup/HelloWorld$ ./ut_all
[*****] Running 1 test from 1 test case.
[-----] Global test environment set-up.
[-----] 1 test from HELLOWORLD
[ RUN    ] HELLOWORLD.PrintHelloWorld
[ OK     ] HELLOWORLD.PrintHelloWorld (0 ms)
[-----] 1 test from HELLOWORLD (0 ms total)

[-----] Global test environment tear-down
[*****] 1 test from 1 test case ran. (3 ms total)
[ PASSED ] 1 test.
sunnyleeyun@DESKTOP-791LC8D:/mnt/c/Users/Yun Lee/NTUT-OOP/HW-EnvironmentSetup/HelloWorld$
```