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Class: KHTN2021

OPERATING SYSTEM
LAB 2'S REPORT

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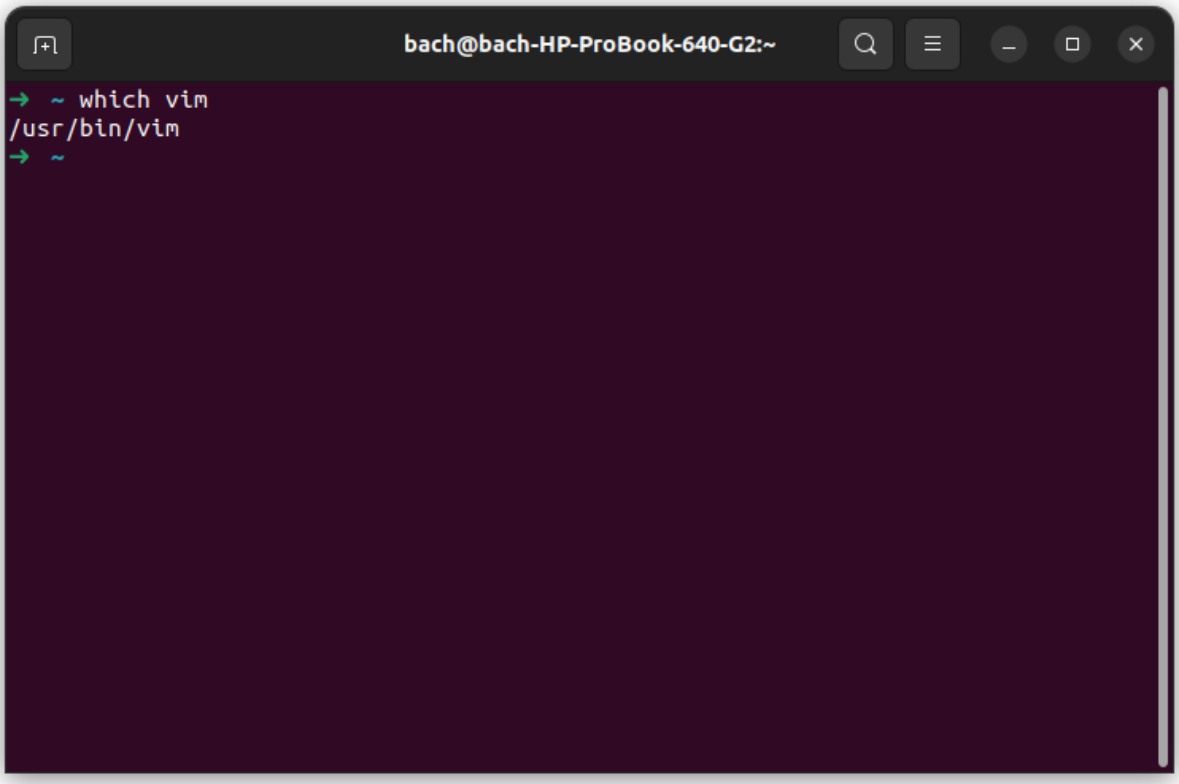
Note: Export file to **PDF and name the file by following format:*
LAB X – <Student ID>.pdf

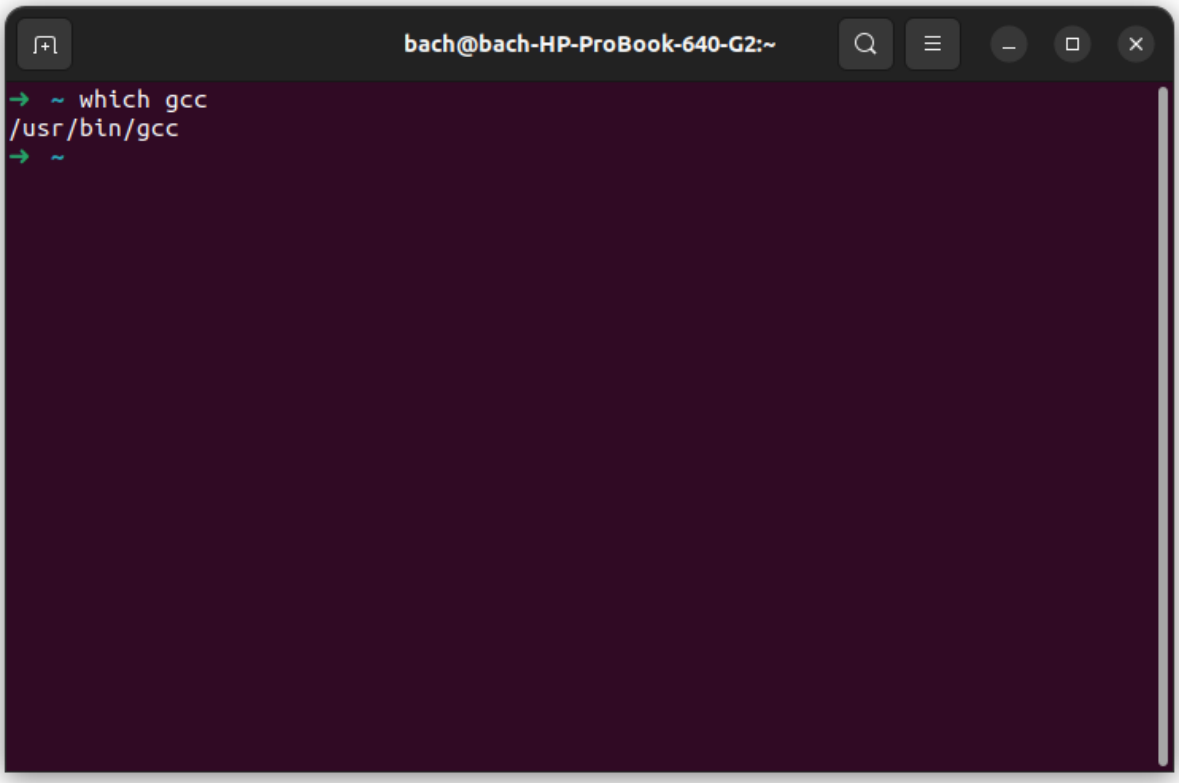
Section 3.3

3.3.1. Install Vim

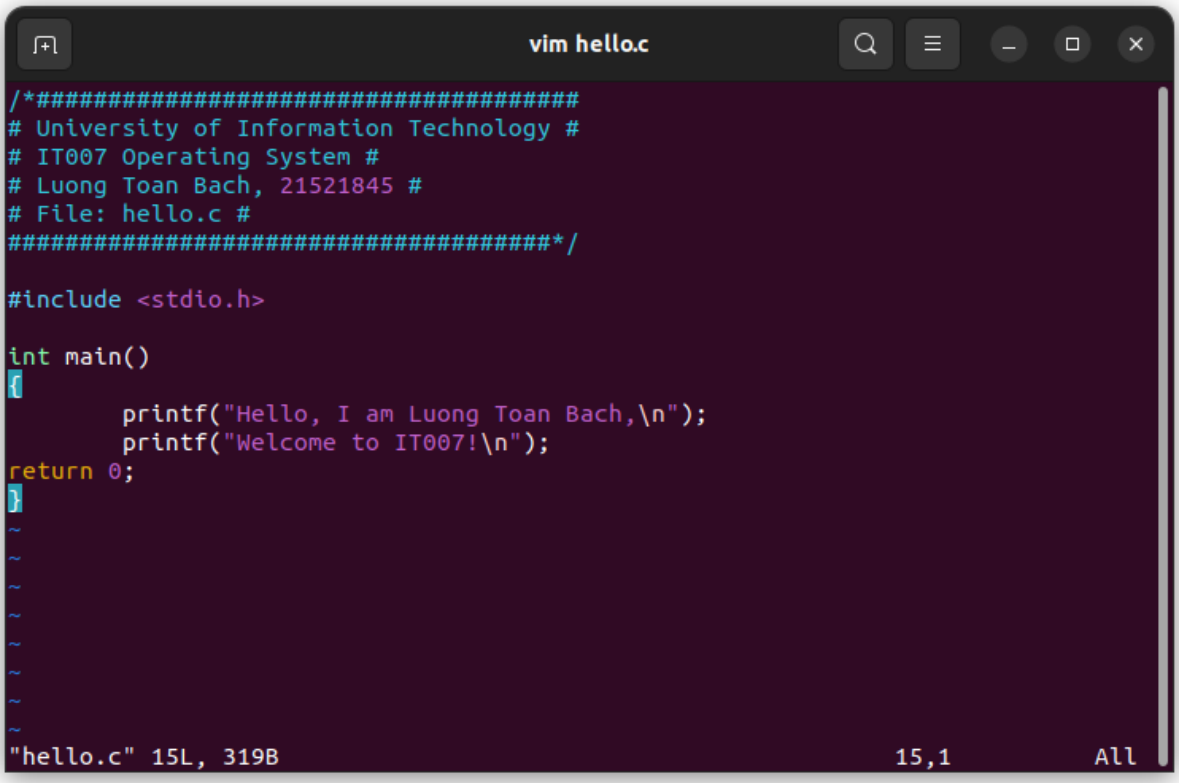


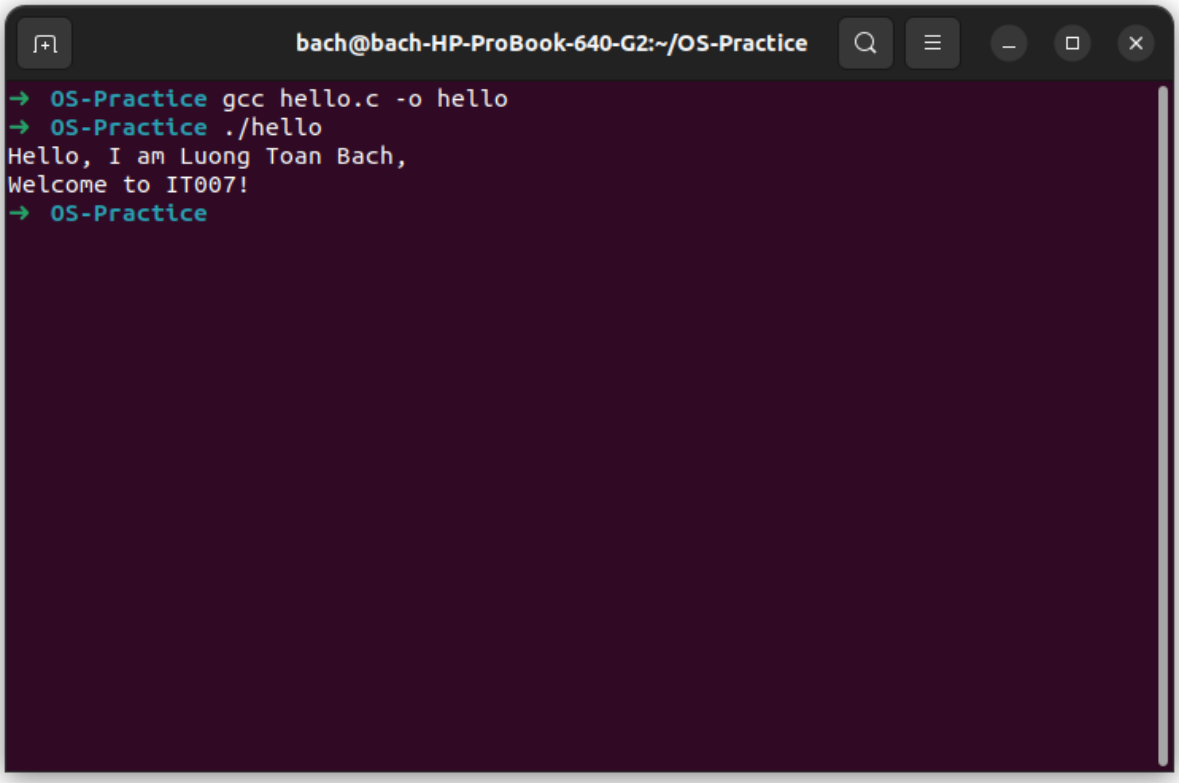
3.3.2.

3.3.2.1. Install gcc

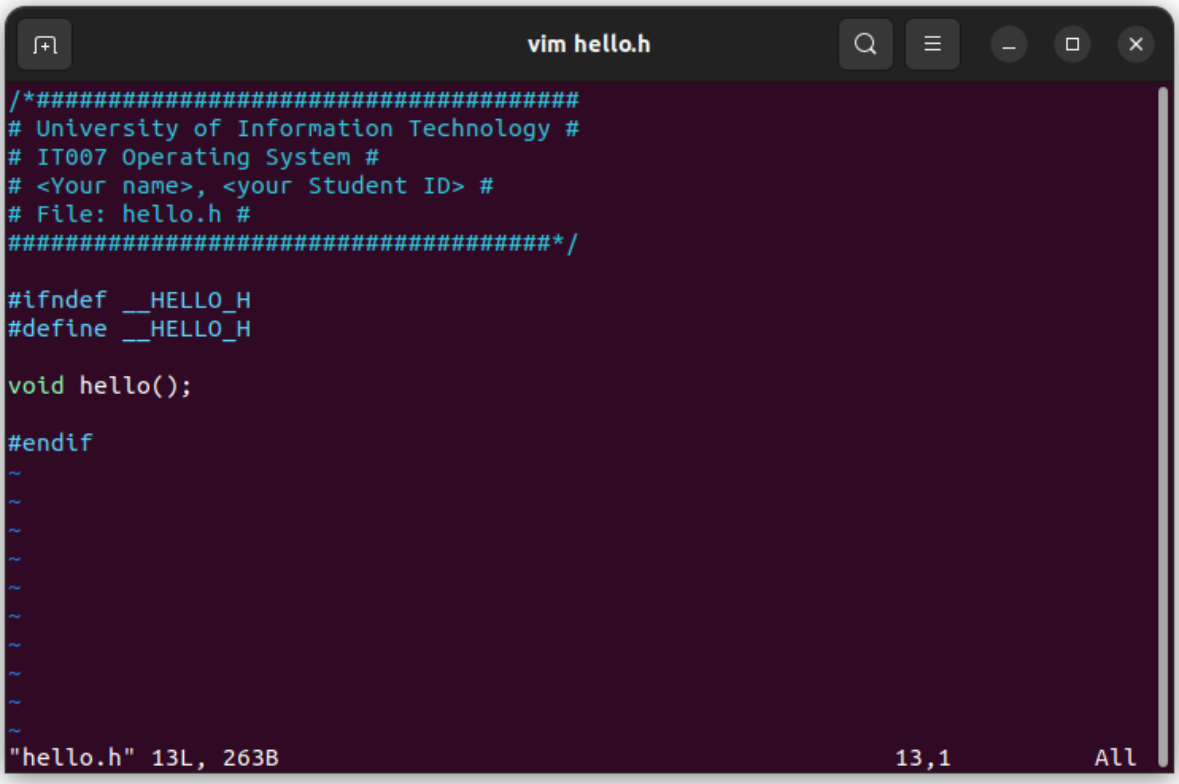


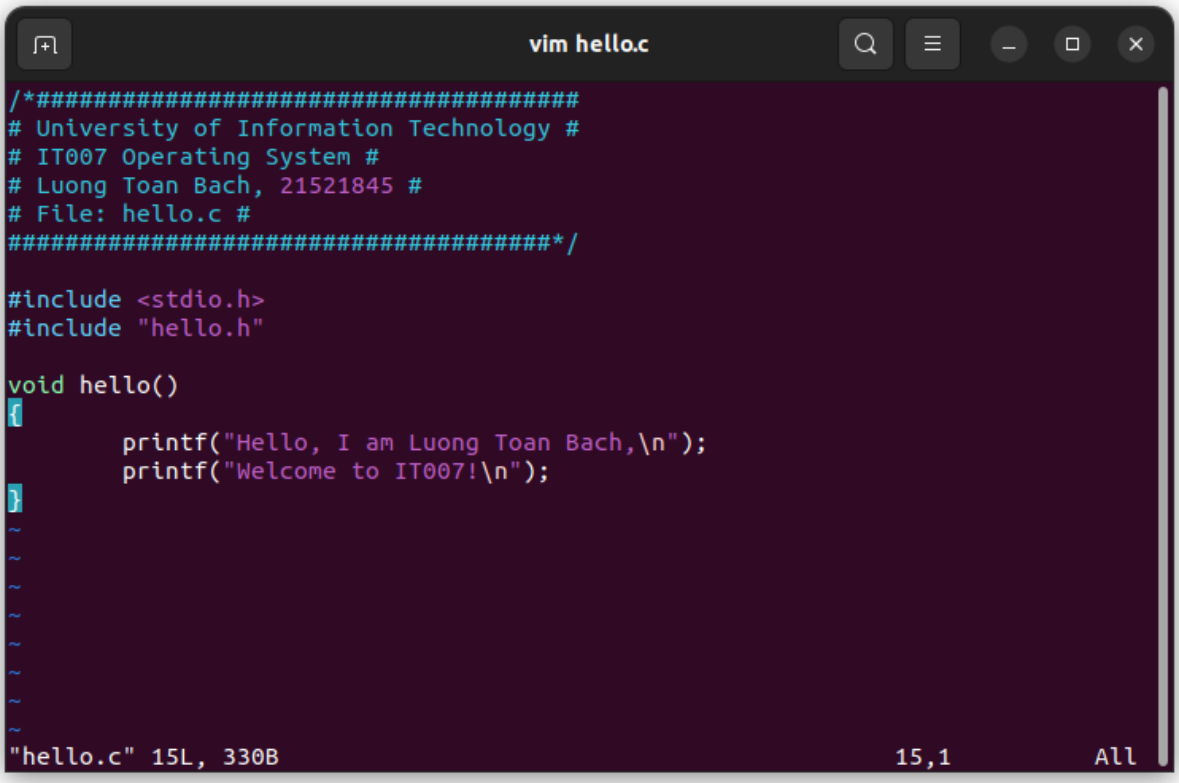
3.3.2.2. Run hello.c

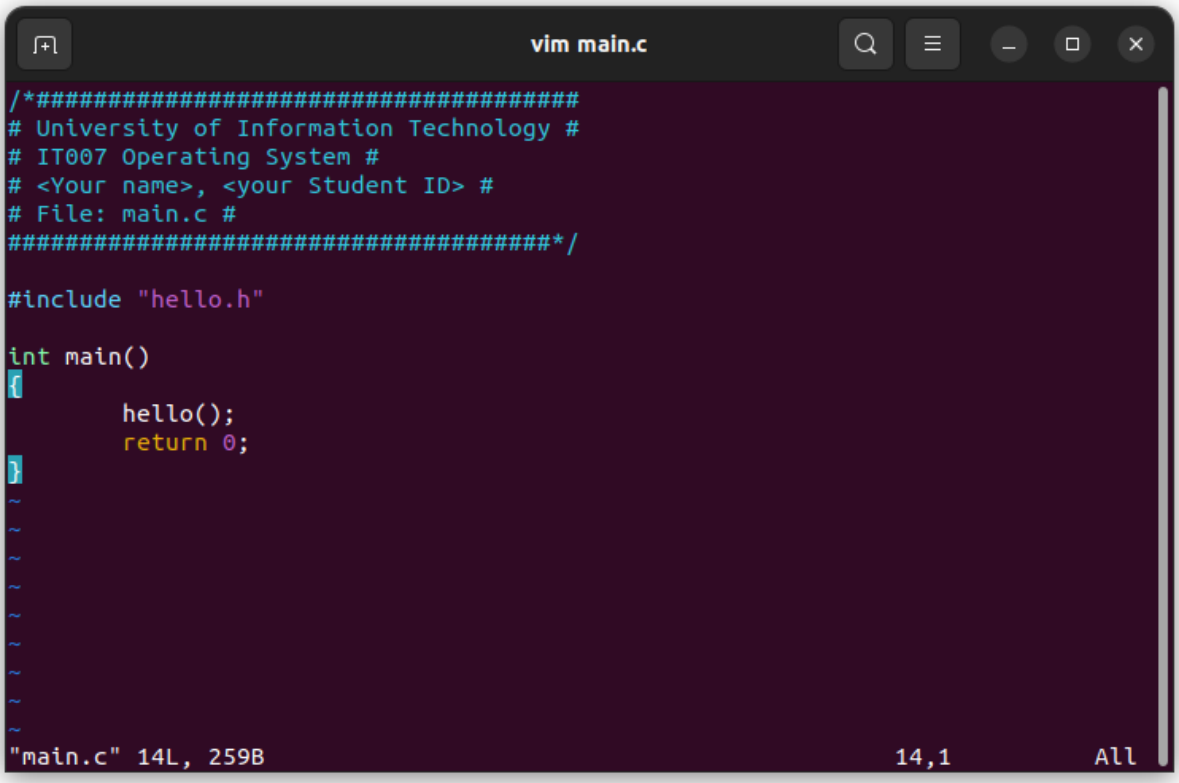

vim hello.c
/*#######################################
University of Information Technology
IT007 Operating System
Luong Toan Bach, 21521845
File: hello.c
#######################################*/
#include <stdio.h>
int main()
{
printf("Hello, I am Luong Toan Bach,\n");
printf("Welcome to IT007!\n");
return 0;
}
"hello.c" 15L, 319B
15,1
All

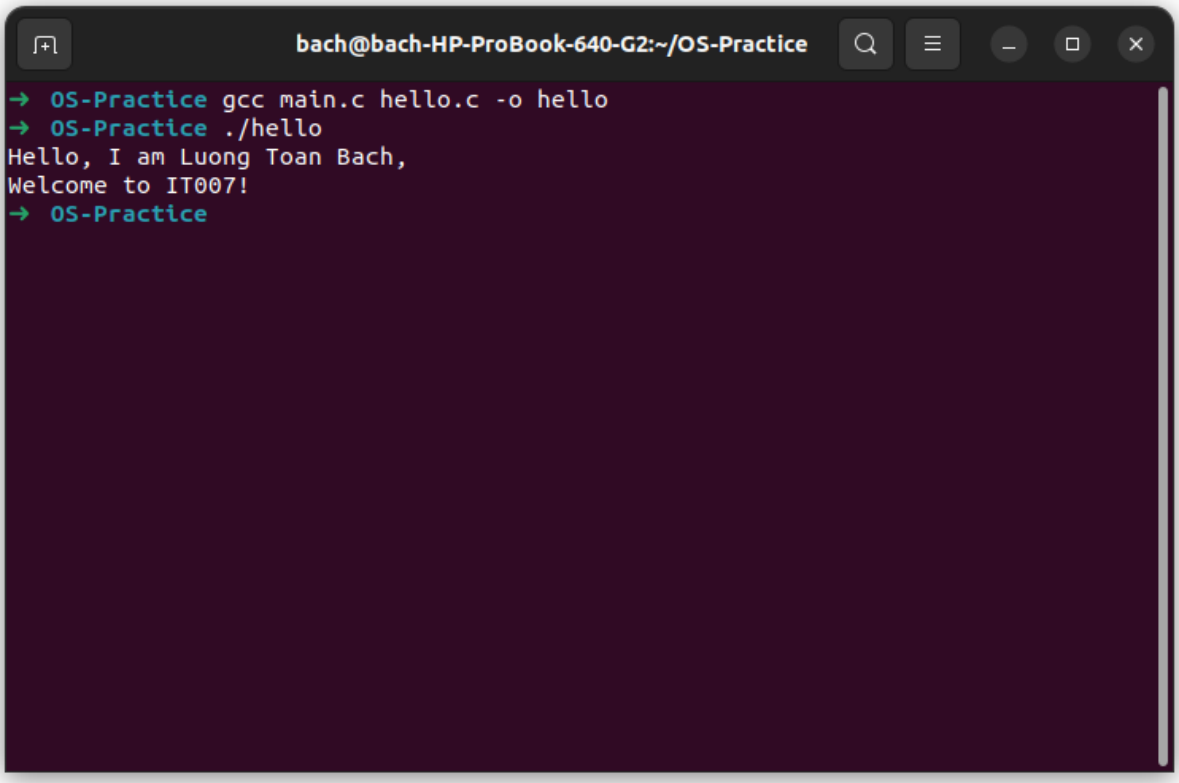

bach@bach-HP-ProBook-640-G2:~/OS-Practice
→ OS-Practice gcc hello.c -o hello
→ OS-Practice ./hello
Hello, I am Luong Toan Bach,
Welcome to IT007!
→ OS-Practice

3.3.2.3. Run hello with include

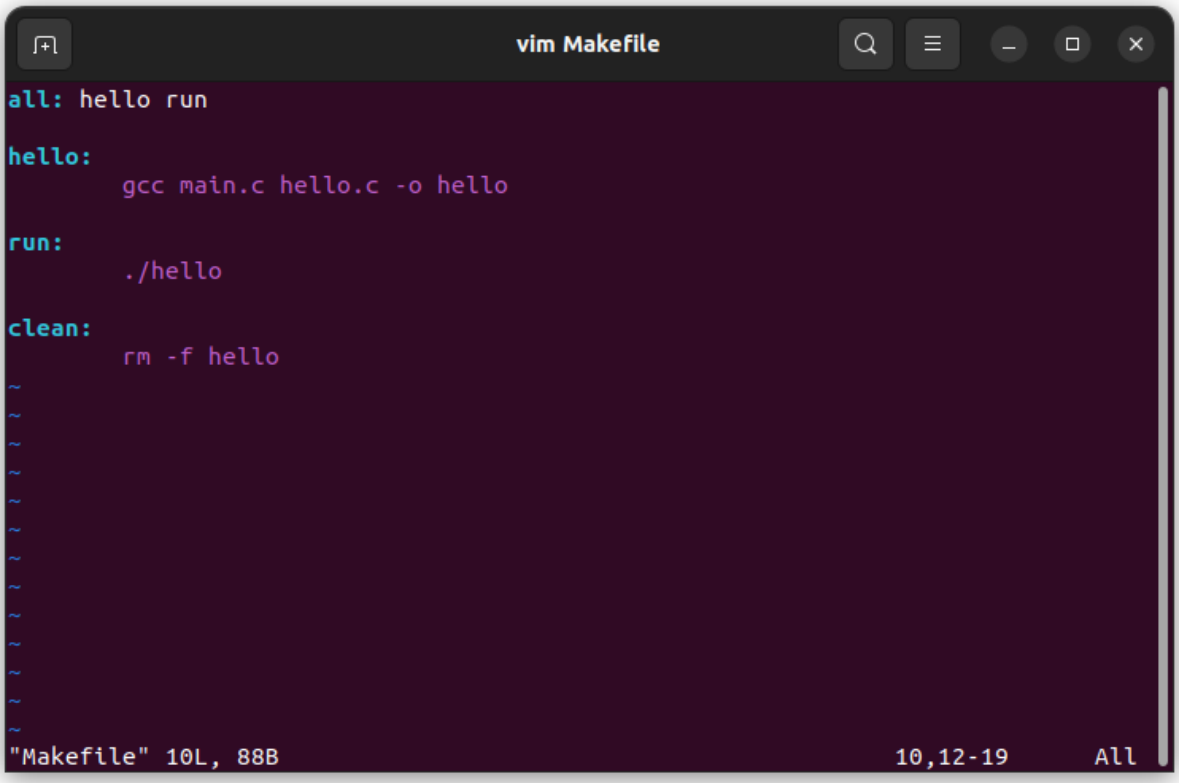


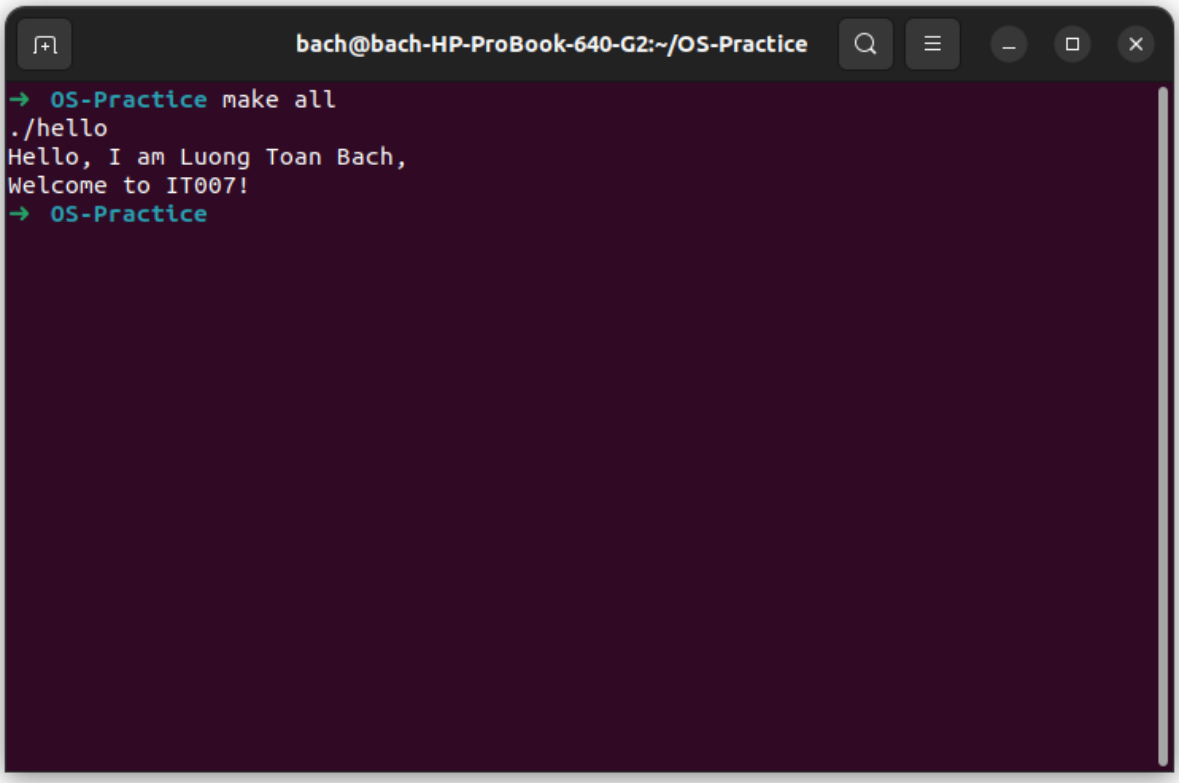

vim hello.c
/*#######################################
University of Information Technology
IT007 Operating System
Luong Toan Bach, 21521845
File: hello.c
#######################################*/
#include <stdio.h>
#include "hello.h"
void hello()
{
printf("Hello, I am Luong Toan Bach,\n");
printf("Welcome to IT007!\n");
}
"hello.c" 15L, 330B
15,1
All


vim main.c
/*#######################################
University of Information Technology
IT007 Operating System
<Your name>, <your Student ID>
File: main.c
#######################################*/
#include "hello.h"
int main()
{
hello();
return 0;
}
"main.c" 14L, 259B
14,1
All

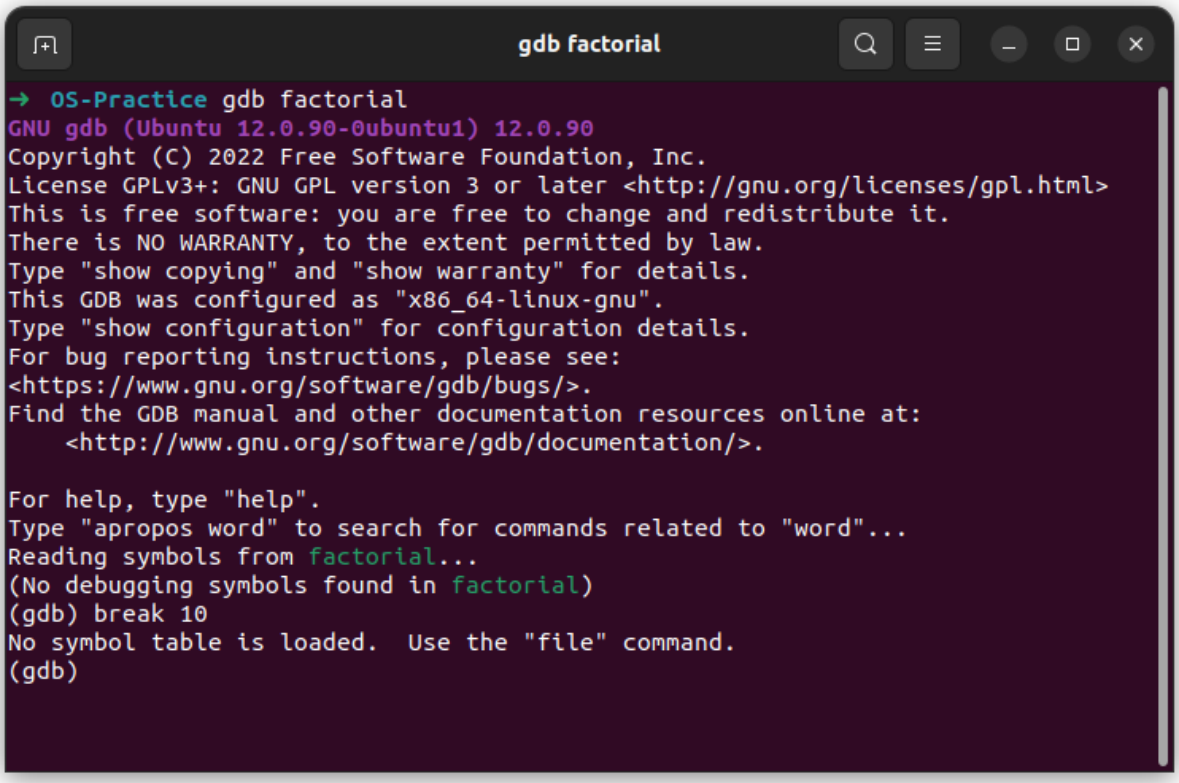


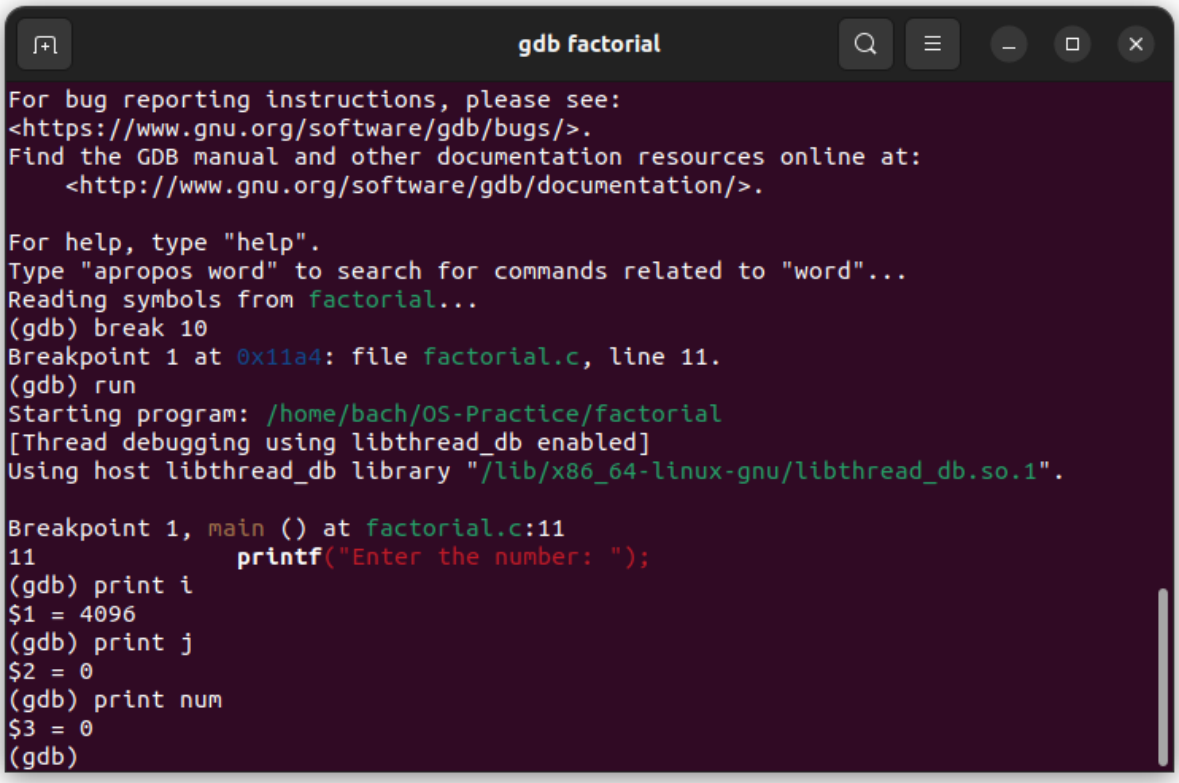
3.3.3. Makefile


vim Makefile
all: hello run
hello:
gcc main.c hello.c -o hello
run:
./hello
clean:
rm -f hello
"Makefile" 10L, 88B
10,12-19
All



3.3.4. Debugger


gdb factorial
→ OS-Practice gdb factorial
GNU gdb (Ubuntu 12.0.90-0ubuntu1) 12.0.90
Copyright (C) 2022 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Type "show copying" and "show warranty" for details.
This GDB was configured as "x86_64-linux-gnu".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<https://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online at:
<http://www.gnu.org/software/gdb/documentation/>.
For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from factorial...
(No debugging symbols found in factorial)
(gdb) break 10
No symbol table is loaded. Use the "file" command.
(gdb)


gdb factorial
For bug reporting instructions, please see:
<https://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online at:
<http://www.gnu.org/software/gdb/documentation/>.
For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from factorial...
(gdb) break 10
Breakpoint 1 at 0x11a4: file factorial.c, line 11.
(gdb) run
Starting program: /home/bach/OS-Practice/factorial
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib/x86_64-linux-gnu/libthread_db.so.1".
Breakpoint 1, main () at factorial.c:11
11 printf("Enter the number: ");
(gdb) print i
$1 = 4096
(gdb) print j
$2 = 0
(gdb) print num
$3 = 0
(gdb)