

1 Yifan Wang 488500

2 linuxlab006.engr.wustl.edu

3 which g++:
/project/compute/compilers/gcc-8.3.0/bin/g++

```
g++ -v:
Using built-in specs.
COLLECT_GCC=g++
COLLECT_LTO_WRAPPER=/project/engineering/compilers/gcc-8.3.0/bin/../libexec/gcc/
x86_64-pc-linux-gnu/8.3.0/lto-wrapper
Target: x86_64-pc-linux-gnu
Configured with: ../gcc-8.3.0/configure --prefix=/project/compute/compilers/gcc-8.3.0 --
enable-languages=c,c++,fortran,go --disable-multilib
Thread model: posix
gcc version 8.3.0 (GCC)
```

4

```
[wang.y1@linuxlab006 studio0]$ make
g++ -o studio0 -DUNIX -Wall -W -g -std=c++17 studio0.cpp
[wang.y1@linuxlab006 studio0]$ ./studio0
hello, world!
```

5.

No argument

```
[wang.y1@linuxlab006 studio0]$ ./studio0
usage: ./studio0 <arg1> [<argv2>....]
[wang.y1@linuxlab006 studio0]$ echo $?
1
```

With 1 argument

```
[wang.y1@linuxlab006 studio0]$ ./studio0 1
hello, world!
[wang.y1@linuxlab006 studio0]$ echo $?
0
```

6

The content of the a.txt file did not change after the second run without write permission.

```
[wang.y1@linuxlab006 studio0]$ ./studio0 a.txt
[wang.y1@linuxlab006 studio0]$ echo $?
0
[wang.y1@linuxlab006 studio0]$ cat a.txt
hello, world!
[wang.y1@linuxlab006 studio0]$ chmod a-w a.txt
[wang.y1@linuxlab006 studio0]$ ./studio0 a.txt
[wang.y1@linuxlab006 studio0]$ echo $?
2
[wang.y1@linuxlab006 studio0]$ cat a.txt
hello, world!
```