

cmake

<http://derekmolloy.ie/hello-world-introductions-to-cmake/>

single simple file

```
helloworld/  
|-- CMakeLists.txt  
|-- helloworld.cpp  
0 directories, 2 files
```

cmake\_minimum\_required(VERSION 2.8.9)

project(hello)

add\_executable(hello helloworld.cpp)

a project with directories

```
student/  
|-- CMakeLists.txt  
|-- build  
|-- include  
| \-- Student.h  
|-- src  
| \-- Student.cpp  
| \-- mainapp.cpp  
3 directories, 4 files
```

cmake\_minimum\_required(VERSION 2.8.9)

project(directory\_test)

include\_directories(include)

#set(SOURCES src/mainapp.cpp src/Student.cpp)file(GLOB SOURCES "src/\*.cpp")

add\_executable(testStudent \${SOURCES})

```
studentlib_shared/  
|-- CMakeLists.txt  
|-- build  
|-- include  
| \-- Student.h  
|-- src  
| \-- Student.cpp  
3 directories, 3 files
```

cmake\_minimum\_required(VERSION 2.8.9)

project(directory\_test)

set(CMAKE\_BUILD\_TYPE Release)

include\_directories(include)

file(GLOB SOURCES "src/\*.cpp")

add\_library(testStudent SHARED \${SOURCES})

#Use "sudo make install" to apply  
install(TARGETS testStudent DESTINATION /usr/lib)

```
studentlib_static/  
|-- CMakeLists.txt  
|-- build  
|-- include  
| \-- Student.h  
|-- src  
| \-- Student.cpp  
3 directories, 3 files
```

cmake\_minimum\_required(VERSION 2.8.9)

project(directory\_test)

set(CMAKE\_BUILD\_TYPE Release)

include\_directories(include)

file(GLOB SOURCES "src/\*.cpp")

add\_library(testStudent STATIC \${SOURCES})

#Use "sudo make install" to apply  
install(TARGETS testStudent DESTINATION /usr/lib)

```
usestudentlib/  
|-- CMakeLists.txt  
|-- build  
|-- libtest.cpp  
1 directory, 2 files
```

cmake\_minimum\_required(VERSION 2.8.9)

project(TestLibrary)

#For the shared library:  
set ( PROJECT\_LINK\_LIBS libtestStudent.so )  
link\_directories( ~/exploringBB/extras/cmake/studentlib\_shared/build )

#For the static library:  
set ( PROJECT\_LINK\_LIBS libtestStudent.a )  
link\_directories( ~/exploringBB/extras/cmake/studentlib\_static/build )

include\_directories(~/exploringBB/extras/cmake/studentlib\_shared/include)

add\_executable(lib test libtest.cpp)

target\_link\_libraries(lib test \${PROJECT\_LINK\_LIBS} )

using a shared or static library

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