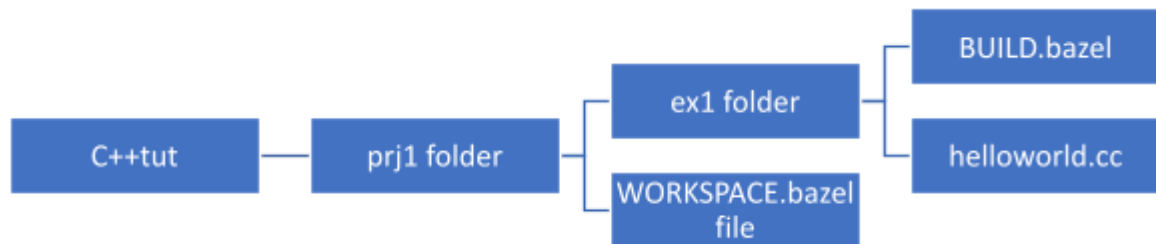


Bazel with C++

1. Install C/C++ extension in VS code
2. Create following directory structure
3. “prj1” folder is called workspace. Must contain WORKSPACE.bazel file.
4. Keep WORKSPACE.bazel file empty. We will be using native rules of bazel.
5. “ex1” is called “package” and must contain all source files and BUILD.bazel



6. Contents of BUILD.bazel

```
7. cc_binary(  
8.     name = "helloworld",  
9.     srcs = ["helloworld.cc"],  
10.)
```

7. contents of helloworld.cc

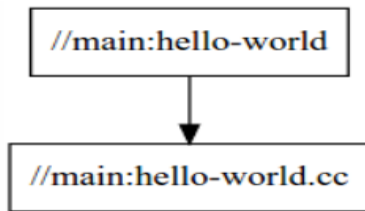
```
#include <iostream>  
  
int main() {  
    std::cout << "Hello World!";  
    return 0;  
}
```

8. build the exe(navigate to the dir “prj1”)

\$ bazel build //ex1:helloworld

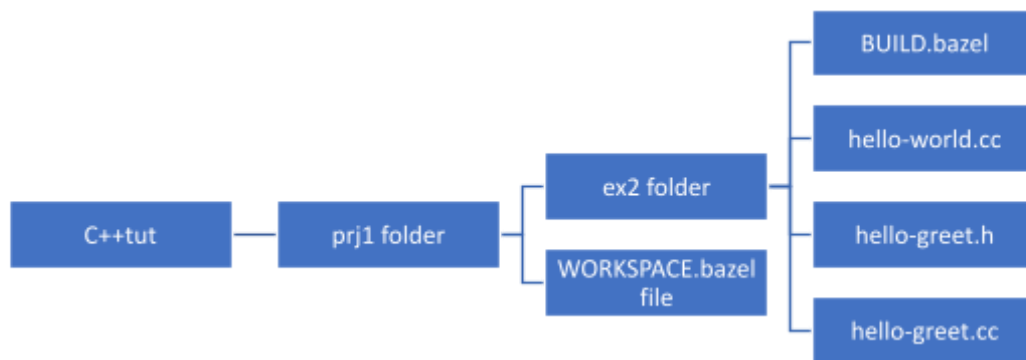
9. run the file

\$ bazel-bin/ex1/helloworld



Example 2:

Create a directory structure as follows :



hello-world.cc

```
#include "hello-greet.h"
#include <ctime>
#include <iostream>
#include <string>

void print_localtime() {
    std::time_t result = std::time(nullptr);
    std::cout << std::asctime(std::localtime(&result));
}

int main(int argc, char** argv) {
    std::string who = "world";
    if (argc > 1) {
        who = argv[1];
    }
    std::cout << get_greet(who) << std::endl;
```

```
    print_localtime();  
    return 0;  
}
```

BUILD.Bazel

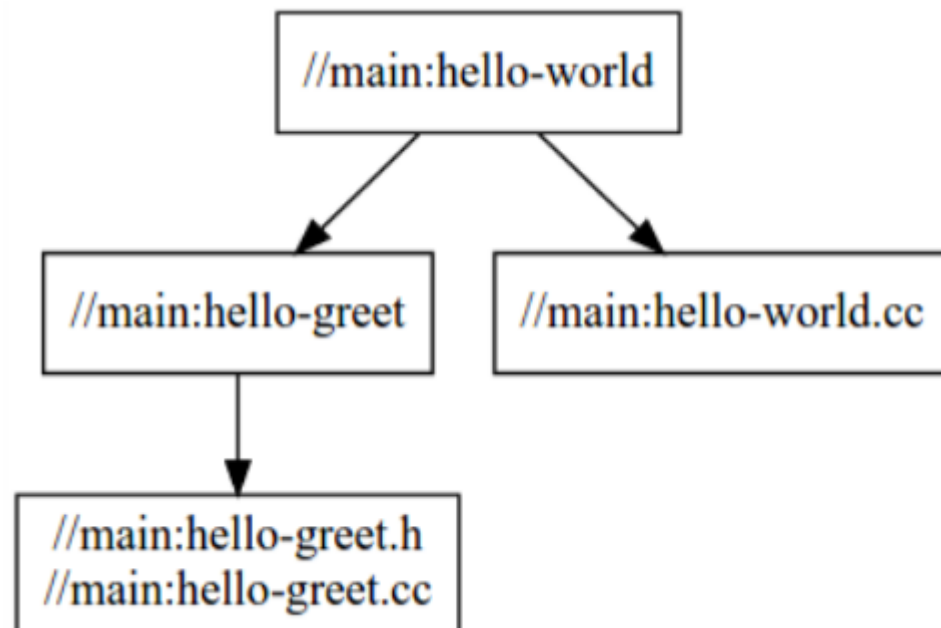
```
cc_library(  
    name = "hello-greet",  
    srcs = ["hello-greet.cc"],  
    hdrs = ["hello-greet.h"],  
)  
  
cc_binary(  
    name = "hello-world",  
    srcs = ["hello-world.cc"],  
    deps = [  
        ":hello-greet",  
    ],  
)
```

hello-greet.cc

```
#include "hello-greet.h"  
#include <string>  
  
std::string get_greet(const std::string& who) {  
    return "Hello " + who;  
}
```

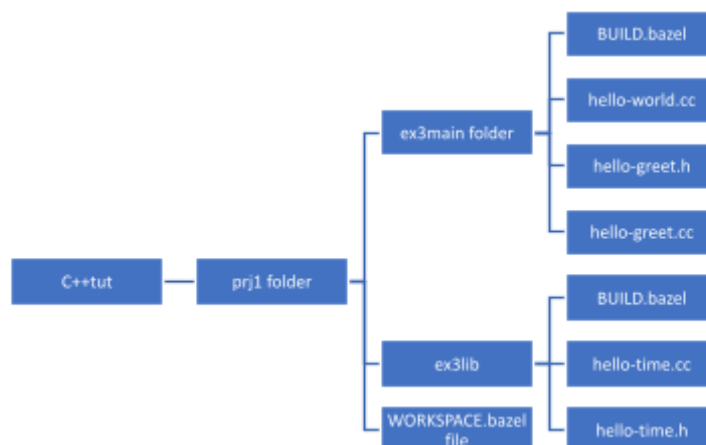
hello-greet.h

```
#ifndef MAIN_HELLO_GREET_H_  
#define MAIN_HELLO_GREET_H_  
  
#include <string>  
  
std::string get_greet(const std::string &thing);  
  
#endif
```



Example 3:

Create following structure:



ex3main/BUILD

```

cc_library(
  name = "hello-greet",
  srcs = ["hello-greet.cc"],
  hdrs = ["hello-greet.h"],
)

```

```
cc_binary(  
    name = "hello-world",  
    srcs = ["hello-world.cc"],  
    deps = [  
        ":hello-greet",  
        "//ex3lib:hello-time",  
    ],  
)
```

ex3lib/BUILD

```
cc_library(  
    name = "hello-time",  
    srcs = ["hello-time.cc"],  
    hdrs = ["hello-time.h"],  
    visibility = ["//ex3main:__pkg__"],  
)
```

hello-time.h

```
#ifndef LIB_HELLO_TIME_H_  
#define LIB_HELLO_TIME_H_  
  
void print_localtime();  
  
#endif
```

hello-time.cc

```
#include "ex3lib/hello-time.h"  
#include <ctime>  
#include <iostream>
```

```
void print_localtime() {  
    std::time_t result = std::time(nullptr);  
    std::cout << std::asctime(std::localtime(&result));  
}
```

