

2. Global Download

```
sudo cp -r /home/sanjay/Downloads/asio-asio-1-30-2/asio/include/*  
/usr/local/include/
```

```
sudo cp -r /home/sanjay/Downloads/Crow-1.2.1-Linux/include/*  
/usr/local/include/ && sudo cp -r /home/sanjay/Downloads/Crow-1.2.1-  
Linux/lib/* /usr/local/lib/
```

```
#include "crow.h"  
#include <sstream>  
  
int main()  
{  
    crow::SimpleApp app; //define your crow application  
  
    // Route handler for root path  
    CROW_ROUTE(app, "/")([]){  
        return "Hello world!";  
    });  
  
    // Route handler with parameter  
    CROW_ROUTE(app, "/hello/<int>")  
    ([](int count){  
        if (count > 100)  
            return crow::response(400);  
        std::ostringstream os;  
        os << count << " bottles of beer!";  
        return crow::response(os.str());  
    });  
  
    // Route handler for about page  
    CROW_ROUTE(app, "/about")([]){  
        return "This is a Crow C++ web framework example!";  
    });  
  
    // Start the server on port 8080  
    app.port(8080).multithreaded().run();  
    return 0;  
}
```

```
sudo apt install -y libssl-dev zlib1g-dev
```

```
cmake_minimum_required(VERSION 3.10)

project(CrowApp)

# Set C++ standard
set(CMAKE_CXX_STANDARD 17)
set(CMAKE_CXX_STANDARD_REQUIRED ON)

# Find required packages
find_package(Crow CONFIG REQUIRED)
find_package(OpenSSL REQUIRED)
find_package(ZLIB REQUIRED)
find_package(Threads REQUIRED)

add_executable(CrowApp main.cpp)

target_link_libraries(CrowApp
    Crow::Crow
    OpenSSL::SSL
    OpenSSL::Crypto
    ZLIB::ZLIB
    Threads::Threads
)
```

```
mkdir -p /home/sanjay/Downloads/build
cd /home/sanjay/Downloads/build && cmake .. && make
```

```
cd /home/sanjay/Downloads/build && ./CrowApp
```

HTTPS Enabled

```
#include "crow.h"
#include <sstream>

int main()
{
    crow::SimpleApp app; //define your crow application

    // Route handler for root path
    CROW_ROUTE(app, "/")([](){
        return "Hello world! (HTTPS Enabled)";
    });

    // Route handler with parameter
```

```

CROW_ROUTE(app, "/hello/<int>")
{
    ([](int count){
        if (count > 100)
            return crow::response(400);
        std::ostringstream os;
        os << count << " bottles of beer!";
        return crow::response(os.str());
    });

    // Route handler for about page
    CROW_ROUTE(app, "/about")([](){
        return "This is a Crow C++ web framework example with HTTPS
support!";
    });

    // Start the server with HTTPS enabled on port 8443
    app.port(8443)
        .ssl_file("server.crt", "server.key") // SSL certificate and key
files
        .multithreaded()
        .run();

    return 0;
}

```

```

cd /home/sanjay/Downloads && openssl req -x509 -newkey rsa:4096 -keyout
server.key -out server.crt -days 365 -nodes -subj
"/C=US/ST=State/L=City/O=Organization/CN=localhost"

```

```
ls -la /home/sanjay/Downloads/server.*
```

```
mkdir -p /home/sanjay/Downloads/build
```

```
cd /home/sanjay/Downloads/build && cmake .. && make
```

```
cp /home/sanjay/Downloads/server.* /home/sanjay/Downloads/build/
```

```
ls -la /home/sanjay/Downloads/build/server.*
```

```
cd /home/sanjay/Downloads/build && ./CrowApp
```

Error

```

inbele-dl2609cs@inbeledl2609cs:~/Downloads/ssl_example/build$ ./CrowApp
(2025-07-22 17:36:29) [INFO    ] Crow/1.2.1 server is running at
https://192.168.1.10:8443 using 8 threads
(2025-07-22 17:36:29) [INFO    ] Call

```

```
`app.loglevel(crow::LogLevel::Warning)` to hide Info level logs.  
(2025-07-22 17:37:11) [ERROR    ] Could not start adaptor: sslv3 alert  
certificate unknown (SSL routines)  
(2025-07-22 17:37:11) [INFO     ] Request: 192.168.1.10:53322 0x711b1c000c30  
HTTP/1.1 GET /  
(2025-07-22 17:37:11) [INFO     ] Response: 0x711b1c000c30 / 200 0
```

certificate had CN=localhost but your server was bound to 192.168.1.10. This mismatch caused the SSL certificate error.

use this instead

```
openssl req -x509 -newkey rsa:4096 -keyout server.key -out server.crt -days  
365 -nodes -subj "/C=US/ST=State/L=City/O=Organization/CN=192.168.1.10" -addext  
"subjectAltName=IP:192.168.1.10,DNS:localhost"
```