How to Setup C++ MySQL Drivers on Ubuntu

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Installing Libraries

In order to get MySQL up and running you need to install the libraries

`sudo apt-get install libmysqlcppconn-dev`

Installing Package

You also need the connector packages from MySQL's website. For Ubuntu 22.04 or Ubuntu 20.04.

You can find out what version of Ubuntu you have by entering in the command `lsb_release -a` . This will tell you your version and then download the correct deb file.

You then need to move the deb file from your downloads to your home directory, if using WSL. This can be done by opening File Explore, copying the file, then navigating to your home directory in Ubuntu and pasting the file. You then want to install the file by running the command `sudo apt install /home/$USERNAME/libmysqlcppconn9_8.0.31-1ubuntu22.04_amd64.deb` . This will install the file for you.

Checking Installs

Now we want to check to make sure that everything go installed into the right place. We will do this by navigating to `/usr/lib/include` This stores all of the include statements for C and C++. You should see some files starting with `mysql` and then a folder called `cppconn` This folder stores all of the needed headers for us.

Include Statements

To fix the errors in the include statement , go over to the headers `drivers.h, statement.h, resultset.h, exception.h` and add `cppconn/` in front of them. In the end they should look like this:

```
#include <cppconn/driver.h>
#include <cppconn/statement.h>
#include <cppconn/resultset.h>
#include <cppconn/exception.h>
```

Compiling

The final step is getting this to compile. I am using `gcc` as my compiler and we need to link the headers to the cpp files. The compiler command to do that is

```
g++ -I/usr/include/cpp/con -o OUTPUT_FILE FILE_TO_RUN.cpp -L/usr/lib -lmysqlcppconn && OUTPUT_FILE
```

Shell Script to Run

```
#!/bin/bash

FILE="FILE_NAME"
GOTO="FILE_LOCATION"

cd $GOTO
g++ -I/usr/include/cpp/con -o $FILE $FILE-main.cpp $FILE-definitions.cpp $FILE-headers.h -L/usr/lib -lmysqlcppconn && ./$FILE
rm $FILE
```