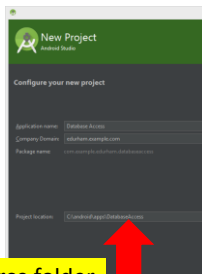


Android and JDBC

Adding Database connectivity
to your Application

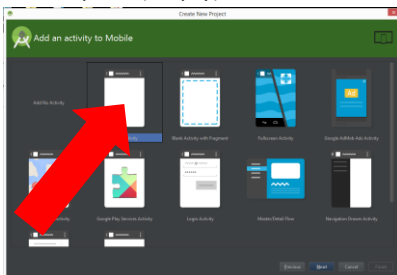
Create a new project



your app's source folder

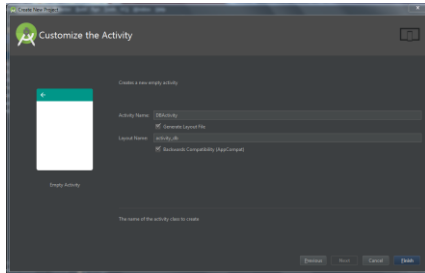
Master / Detail view

- Choose your template (Empty)

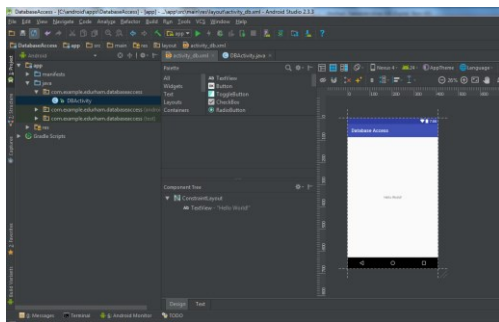


Accept Defaults

Name your activity, "DBActivity"

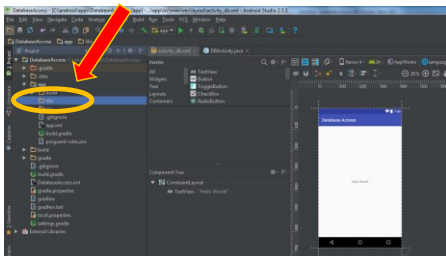


And you're ready to begin.



Step 1: Create a libs folder

- Under your **project**, subfolder apps, find the "libs" folder



Step 2. Get the Driver

- For every different type of database you want to use, you will need its JDBC driver.
- Today, we are working with MySQL.
- The **JDBC** driver is available here (and on D2L/iCollege):

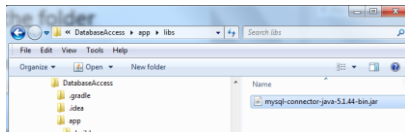
<https://www.mysql.com/products/connector/>

- Choose platform-independent and download the driver.

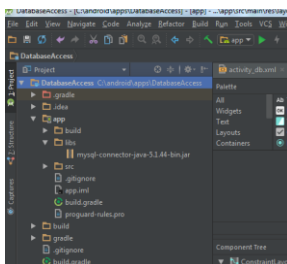
Unzip the folder

- Unzip the folder in your local downloads (etc)
- Inside the resultant folder will be a file ending in .jar
- Take the jar file and copy it to

<your app's source folder> /app/libs

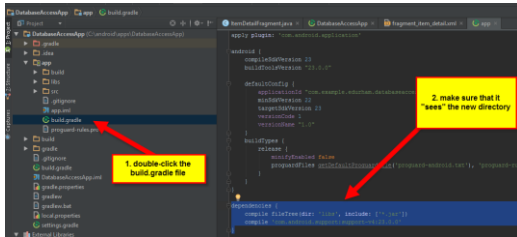


Ensure that the jar displays in your project

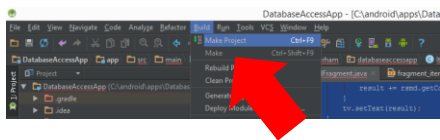


Review build.gradle (app section)

- If it is not already there, add the dependency information



Make the project



Install a Database IDE/GUI

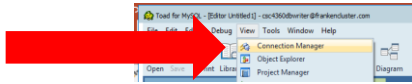
- Install the **MySQL Workbench** UIs on your local machine (whichever you are more comfortable with) if you haven't already.

- Links:

D2L > Contents > Student Resources > Software

Local Connectivity

- Verify that you can use the “New Connection” wizard in MySQL Workbench / TOAD for MySQL



First things first: Connectivity

- Check that you can connect to the remote database!

Credentials:

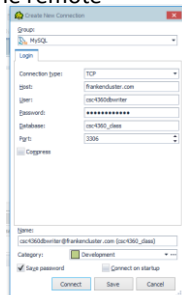
Read-only:

csc4360dbviewer
fw3X2K!a]b,

Read/Write:

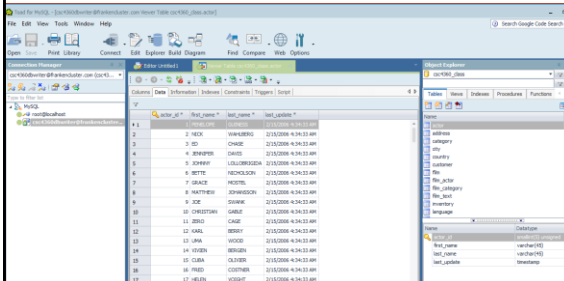
csc4360dbwriter
cg*6JMTXX1XT

HOST:
frankencluster.com
Schema/Database:
csc4360_class
Port:
3306



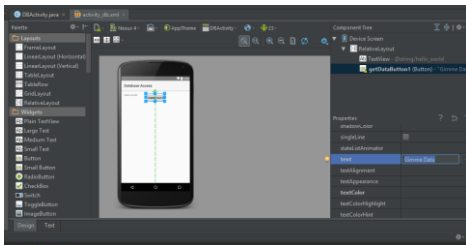
View the data in the database

- Once connected, use the Object Explorer to view the tables and table contents.



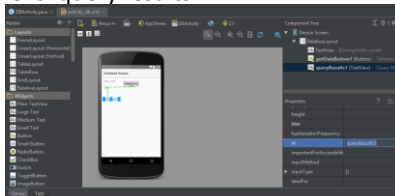
Make a button

- Name your button "getDataButton1"
- Change the text to "Give Me Data" or similar



Add a Query Results placeholder

- Add a Plain Textview placeholder to contain the output that you will be pulling from the database.
- Name it "queryResults1"



Add the drivers that you need

- In your java file, add the import statements

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.Statement;
```

Now do the same dance...

In your Java file, add the following:

```
private static final String url =
"jdbc:mysql://frankencluster.com:3306/csc4360_class";
private static final String user = "csc4360dbviewer";
private static final String pass = " ;fw3X2K!a2b,";
```

Use JDBC to get connected to the remote database!

Programmatically add the method to the onClick

- Add the button's onClick method to the onCreate method in your Java file.
- Use an AsyncTask to get the data from the database

Source code is on D2L: DBActivity.java!!

Add INTERNET permission

```
<uses-permission
android:name="android.permission.INTERNET" />
```

