

INSTALLATION INSTRUCTIONS FOR MYSQL

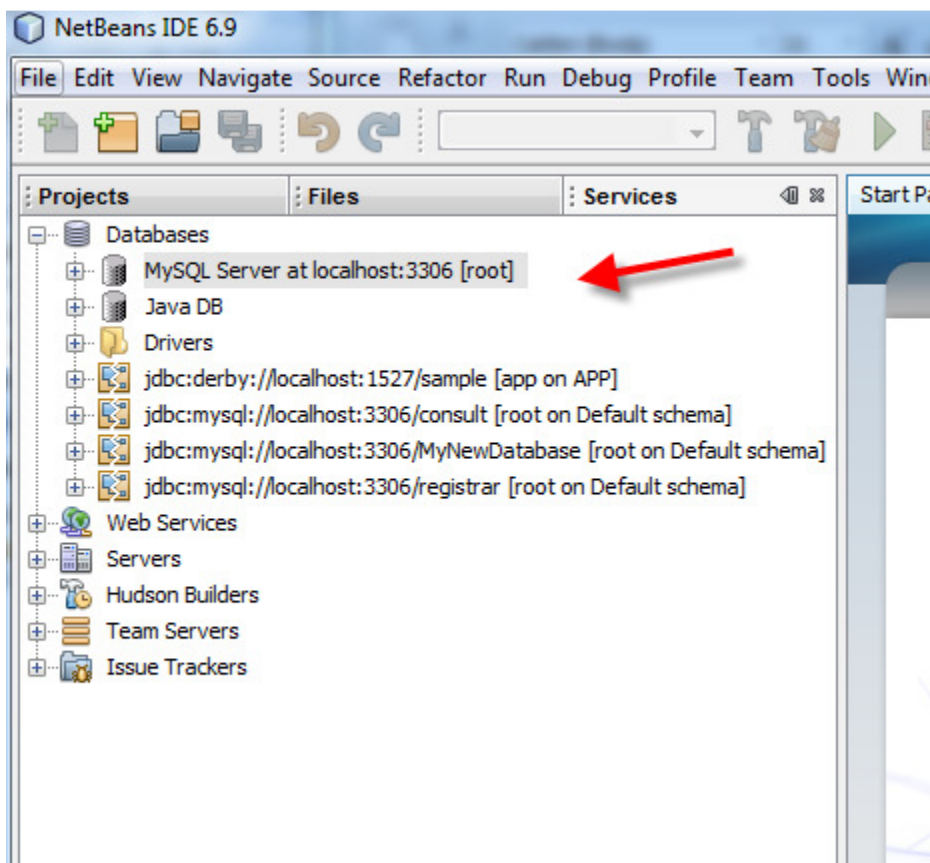
DOWNLOAD AND CONFIGURE MYSQL

The instructions for downloading and configuring MySQL are provided in the Course of Study.

CREATING YOUR DATABASE FROM A SQL SCRIPT AND SETTING UP A USER ACCOUNT

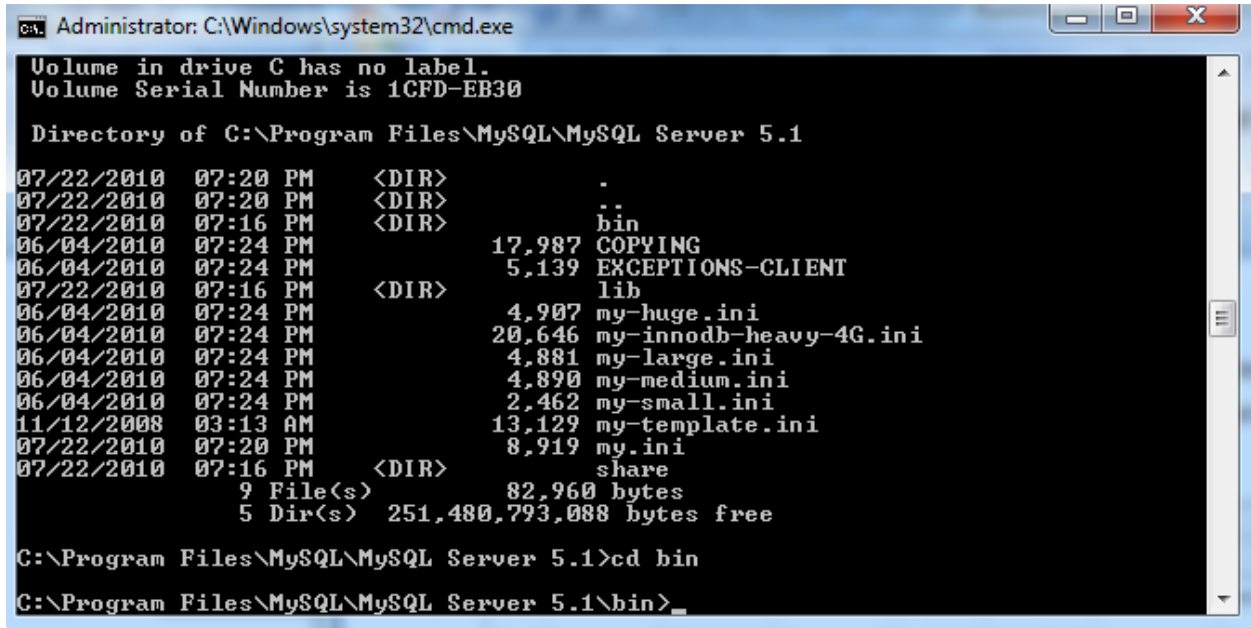
After you download the registrar.sql script from TaskStream to your hard drive, follow these steps to build your database.

Ensure your NetBeans is connected to MySQL Server and that MySQL Server is running



SET UP USER ACCOUNT(S)

You'll need a user account for access to the database. This is the account that your applications will use. Start up a *cmd* window in Windows and change to the bin directory of MySQL



```
C:\> Administrator: C:\Windows\system32\cmd.exe

Volume in drive C has no label.
Volume Serial Number is 1CFD-EB30

Directory of C:\Program Files\MySQL\MySQL Server 5.1

07/22/2010  07:20 PM    <DIR>          .
07/22/2010  07:20 PM    <DIR>          ..
07/22/2010  07:16 PM    <DIR>          bin
06/04/2010  07:24 PM           17,987 COPYING
06/04/2010  07:24 PM           5,139 EXCEPTIONS-CLIENT
07/22/2010  07:16 PM    <DIR>          lib
06/04/2010  07:24 PM           4,907 my-huge.ini
06/04/2010  07:24 PM          20,646 my-innodb-heavy-4G.ini
06/04/2010  07:24 PM           4,881 my-large.ini
06/04/2010  07:24 PM           4,890 my-medium.ini
06/04/2010  07:24 PM           2,462 my-small.ini
11/12/2008  03:13 AM          13,129 my-template.ini
07/22/2010  07:20 PM           8,919 my.ini
07/22/2010  07:16 PM    <DIR>          share
          9 File(s)          82,960 bytes
          5 Dir(s)  251,480,793,088 bytes free

C:\Program Files\MySQL\MySQL Server 5.1>cd bin
C:\Program Files\MySQL\MySQL Server 5.1\bin>
```

Start MySQL monitor from Command Prompt as root by typing in the following command. You will need to remember the root password you created when you configured MySQL.

```
mysql -h localhost -u root -p
```

```

Administrator: C:\Windows\system32\cmd.exe - mysql -h localhost -u root -p

Directory of C:\Program Files\MySQL
07/22/2010  07:16 PM    <DIR>          .
07/22/2010  07:16 PM    <DIR>          ..
07/22/2010  07:20 PM    <DIR>          MySQL Server 5.1
                0 File(s)                0 bytes
                3 Dir(s)  250,936,741,888 bytes free

C:\Program Files\MySQL>cd MySQL Server 5.1
C:\Program Files\MySQL\MySQL Server 5.1>cd bin
C:\Program Files\MySQL\MySQL Server 5.1\bin>mysql -h localhost -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 111
Server version: 5.1.48-community MySQL Community Server (GPL)

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and you are welcome to modify and redistribute it under the GPL v2 license

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>

```

At the **mysql>** prompt, type in the following three statements to create the **abt1** user account for MySQL. This is the user account that your Java application will use when connecting to the database. The grader will also use this user account when running your application. Be VERY careful not to make any typos.

```
USE mysql;
```

```
create user 'abt1s'@'localhost' identified by 'abt1s';
```

```
grant select, insert, update, delete, create, drop, references, execute on *.* to
'abt1s'@'localhost';
```

```

mysql> USE mysql;
Database changed
mysql> create user 'abt1s'@'localhost' identified by 'abt1s';

Query OK, 0 rows affected (0.00 sec)

mysql> grant select, insert, update, delete, create, drop, references, execute o
n *.* to 'abt1s'@'localhost';
Query OK, 0 rows affected (0.00 sec)

mysql>

```

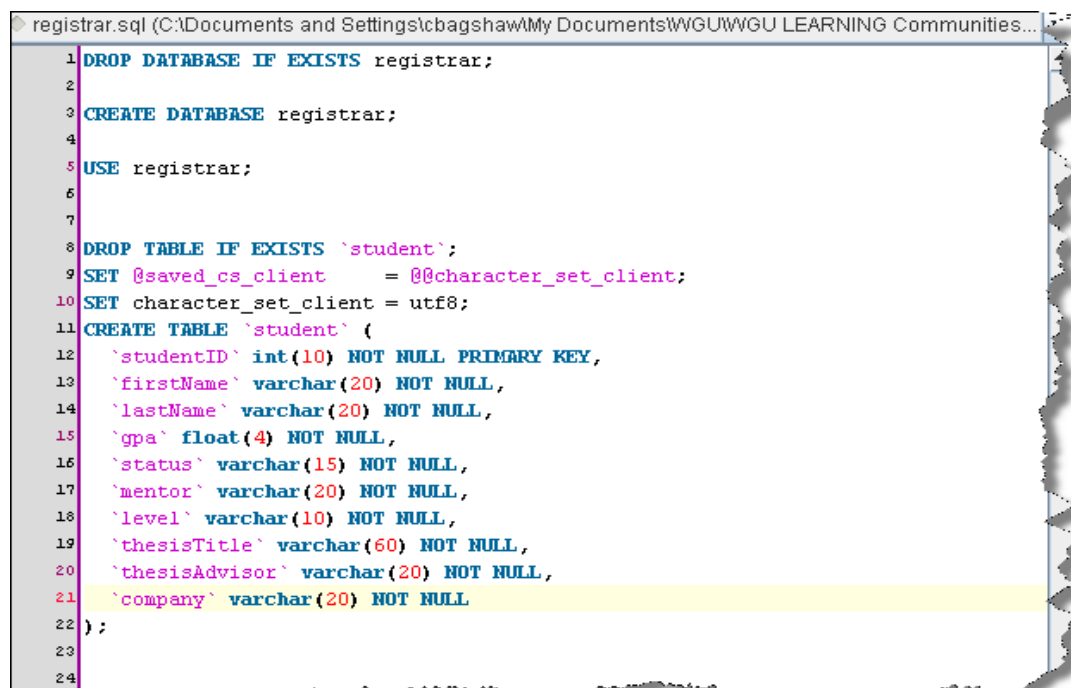
Exit.

You have added the abt1 user

```
mysql> exit
Bye
C:\Program Files\MySQL\MySQL Server 5.1\bin>
```

Locate the **SQL** script on your hard drive that you downloaded from the TaskStream instructions. It is likely named: ABT SUM 1A Registrar Attachment.sql. Rename this to a simpler name such as **registrar.sql**

This script will create the registrar database and create the student table. Here is what it looks like. You can open it up in WordPad.



```
registrar.sql (C:\Documents and Settings\cbagshaw\My Documents\WGU\WGU LEARNING Communities...
1 DROP DATABASE IF EXISTS registrar;
2
3 CREATE DATABASE registrar;
4
5 USE registrar;
6
7
8 DROP TABLE IF EXISTS `student`;
9 SET @saved_cs_client      = @@character_set_client;
10 SET character_set_client = utf8;
11 CREATE TABLE `student` (
12   `studentID` int(10) NOT NULL PRIMARY KEY,
13   `firstName` varchar(20) NOT NULL,
14   `lastName` varchar(20) NOT NULL,
15   `gpa` float(4) NOT NULL,
16   `status` varchar(15) NOT NULL,
17   `mentor` varchar(20) NOT NULL,
18   `level` varchar(10) NOT NULL,
19   `thesisTitle` varchar(60) NOT NULL,
20   `thesisAdvisor` varchar(20) NOT NULL,
21   `company` varchar(20) NOT NULL
22 );
23
24
```

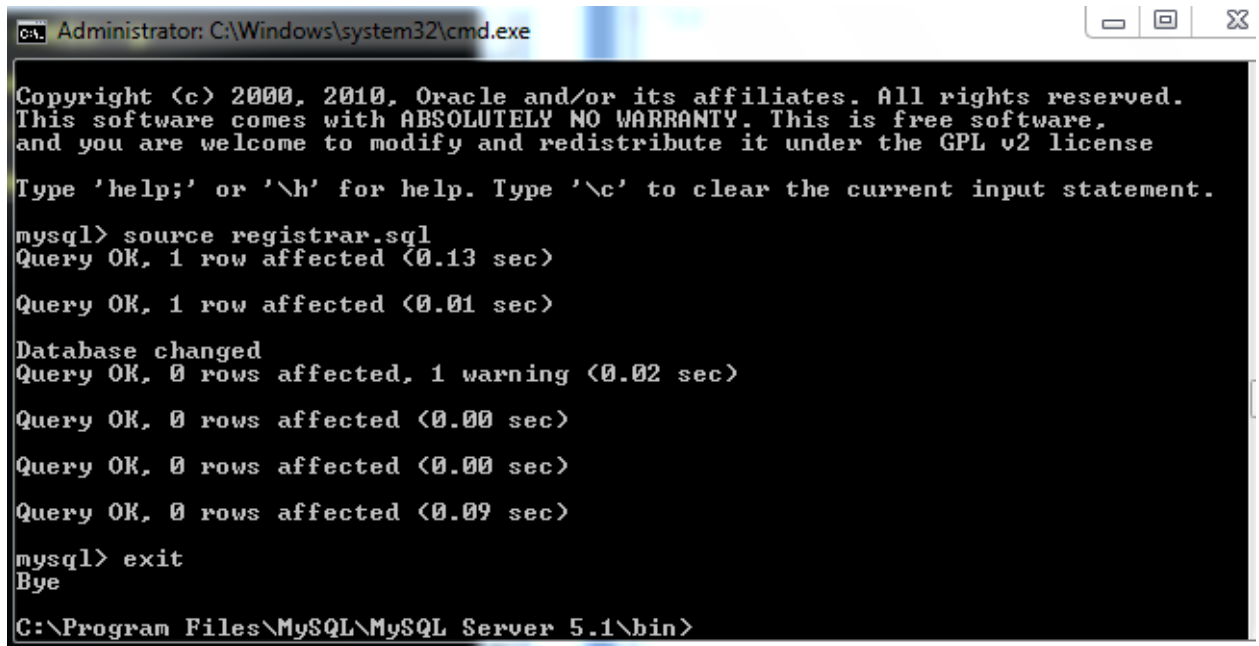
Copy this script to your mysql bin directory.

Using the MySQL monitor, run the script to create your registrar database:

1. From command prompt cd to the bin directory where you placed the SQL script
2. Login as abt1s
`mysql -h localhost -u abt1s -p`

password is **abt1s**

3. Execute the script
`source registrar.sql`
4. `exit`



```
C:\Windows\system32\cmd.exe

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and you are welcome to modify and redistribute it under the GPL v2 license

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> source registrar.sql
Query OK, 1 row affected (0.13 sec)

Query OK, 1 row affected (0.01 sec)

Database changed
Query OK, 0 rows affected, 1 warning (0.02 sec)

Query OK, 0 rows affected (0.00 sec)

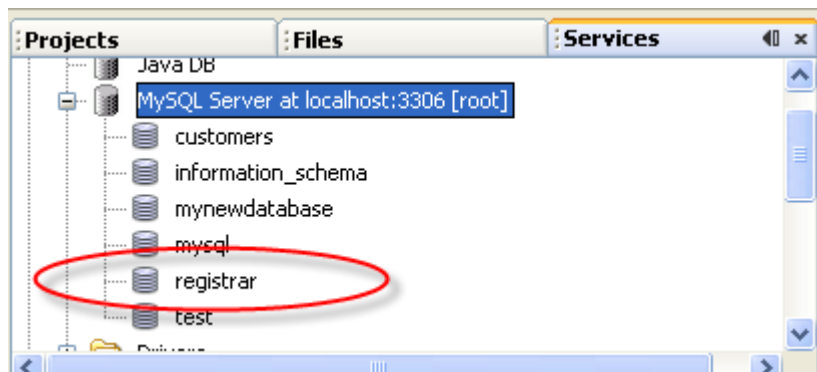
Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.09 sec)

mysql> exit
Bye

C:\Program Files\MySQL\MySQL Server 5.1\bin>
```

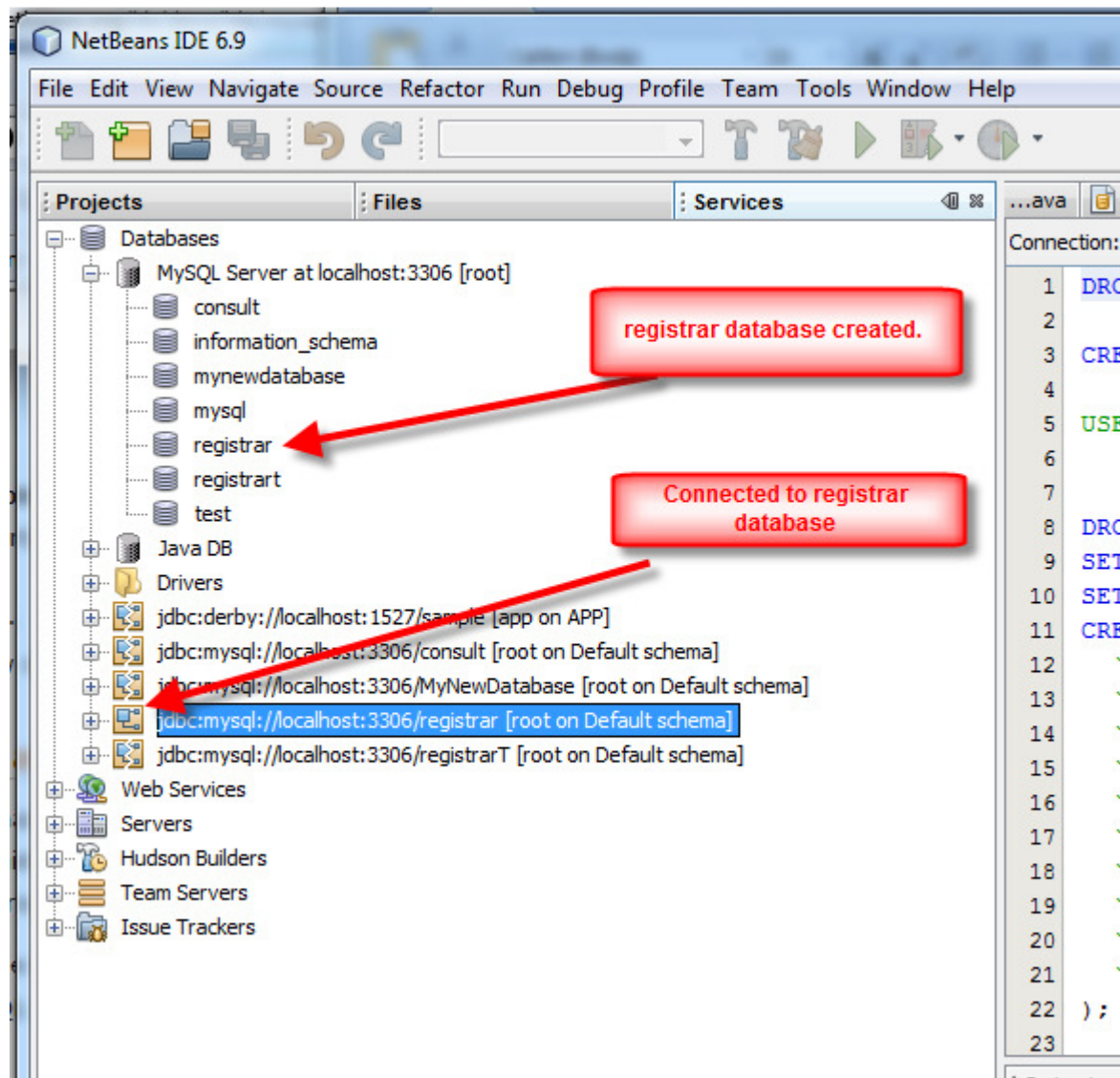
Your registrar database has been created and should appear under Databases 😊



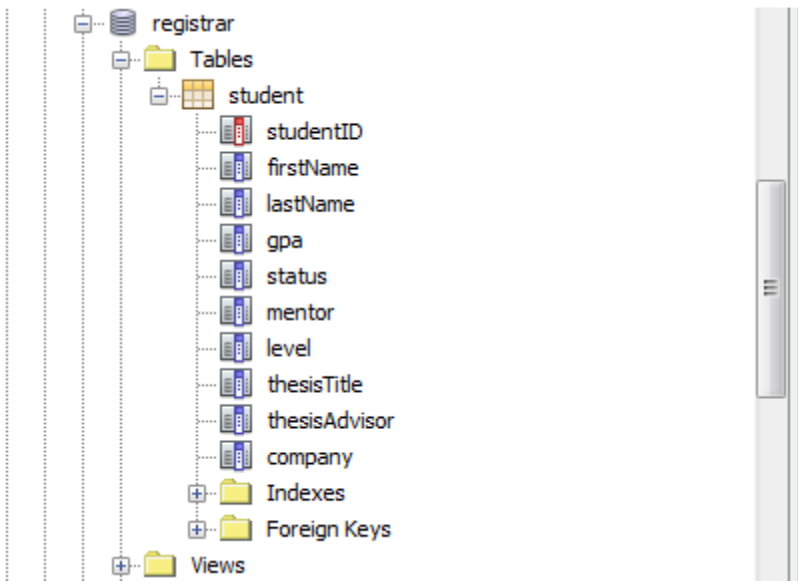
CREATE A CONNECTION TO YOUR **REGISTRAR** DATABASE

Right mouse click the registrar database and then select “Connect”.

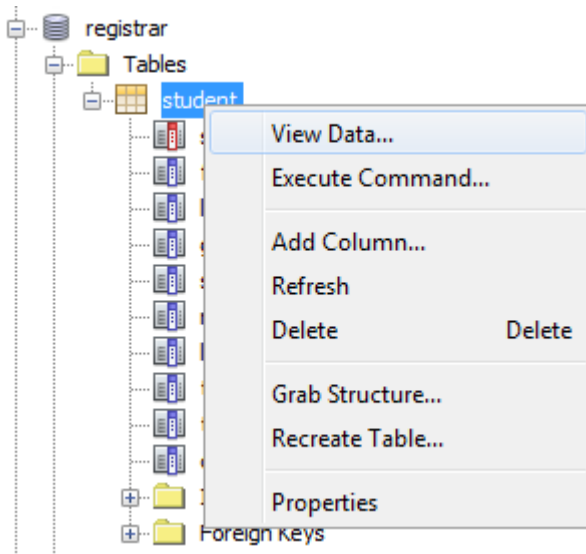
You will now see the connection to your registrar database.



If you expand this connection, you will see that your Student table has been created. There are no records in this table yet, but it is ready for your application to add student records, query existing student records, delete records, and update records.



If you right mouse click the table, you can select the “View Data” command which will execute a SQL query on all records in this table



Here is the ‘student’ table that got created when you ran the SQL script. All required fields were created. There are no records in the table yet, but it is ready for records to be added by your Java application.

| # | studentID | firstName | lastName | gpa | status | mentor | level | thesisTitle | thesisAdvisor | company |
|---|-----------|-----------|----------|-----|--------|--------|-------|-------------|---------------|---------|
| | | | | | | | | | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |

CREATING YOUR JAVA APPLICATION

Now you are ready to develop your Java application that connects to the database and adds, deletes, updates, or queries records in your database, according to the task's stated requirements. First plan your application and determine the type of user interface you want to provide. If you develop this application in NetBeans, you will need to include the JDBC .jar file in order for your application to connect to the database when you run it. This is covered in the next section, "JDBC".

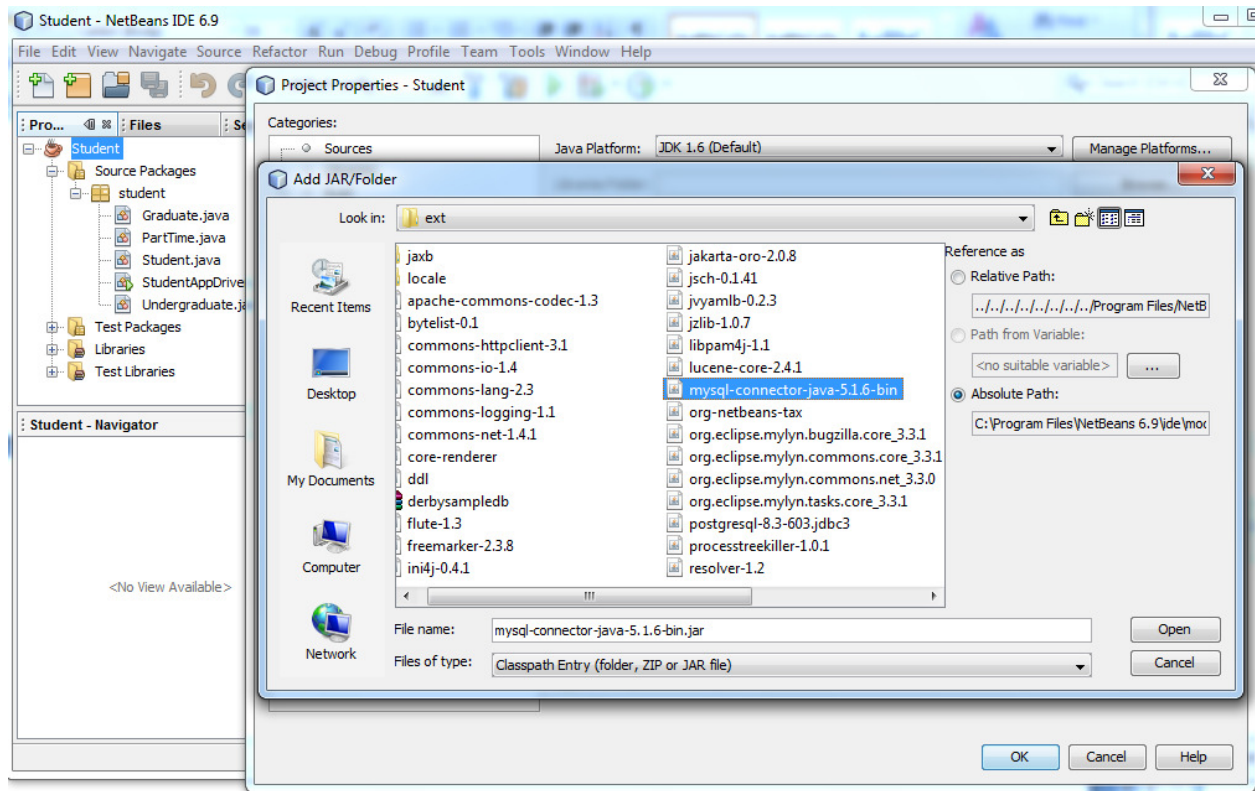
JDBC

JDBC now comes with NetBeans. In order for your Java application to connect to the database, you have to set the properties of your Java Project; so that it uses JDBC to connect to the database. When you have coded your Java application that actually uses JDBC to execute updates and queries, you'll need to set your project to use the JDBC connector for MySQL.

Right mouse click the Project folder and go to Properties.

Select Libraries category. On the far right, select Add Jar/Folder. You will then browse to the JDBC mySql connector. This connector is now located in NetBeans ide\modules\ext directory. You do not need to download a separate connect as we have done in the past. Here is the path to mine:

```
C:\Program Files\NetBeans 6.9\ide\modules\ext\mysql-connector-
java-5.1.6-bin.jar
```

Good luck ☺