

CSCI2441W: Setting up your SEAS database and webserver

Tutorial for Spring 2015 class

Contact TA with questions

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Step 1: Connect to GWU VPN

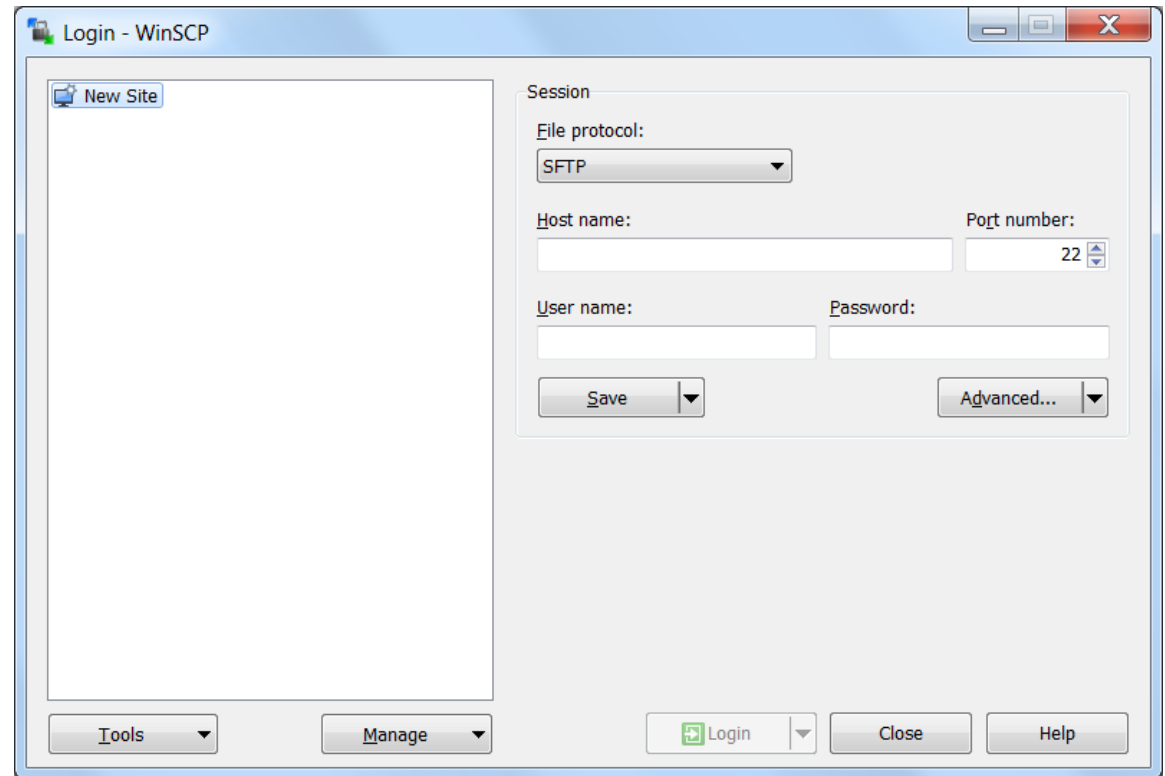
- This can be skipped if you are on the GWU campus and connected to a GWU network directly (GWireless, etc.)
- If you are not on the GWU campus, you need to connect to the GWU VPN – instructions are here: https://it.gwu.edu/sites/it.gwu.edu/files/AnyConnect_Win.pdf
- Note that for this you are using your NetID (your email username) and password to login, not your SEAS account which is used for everything else covered here.

Step 2: Connect to the GWU student webserver

- It is recommended that Windows users use WinSCP (<http://winscp.net/eng/download.php>) and Mac users use Cyberduck (<https://cyberduck.io/?l=en>) or FileZilla (<https://filezilla-project.org/>), though there are other tools available.
- This tutorial will cover using WinSCP, though other tools should be similar and require the same information.

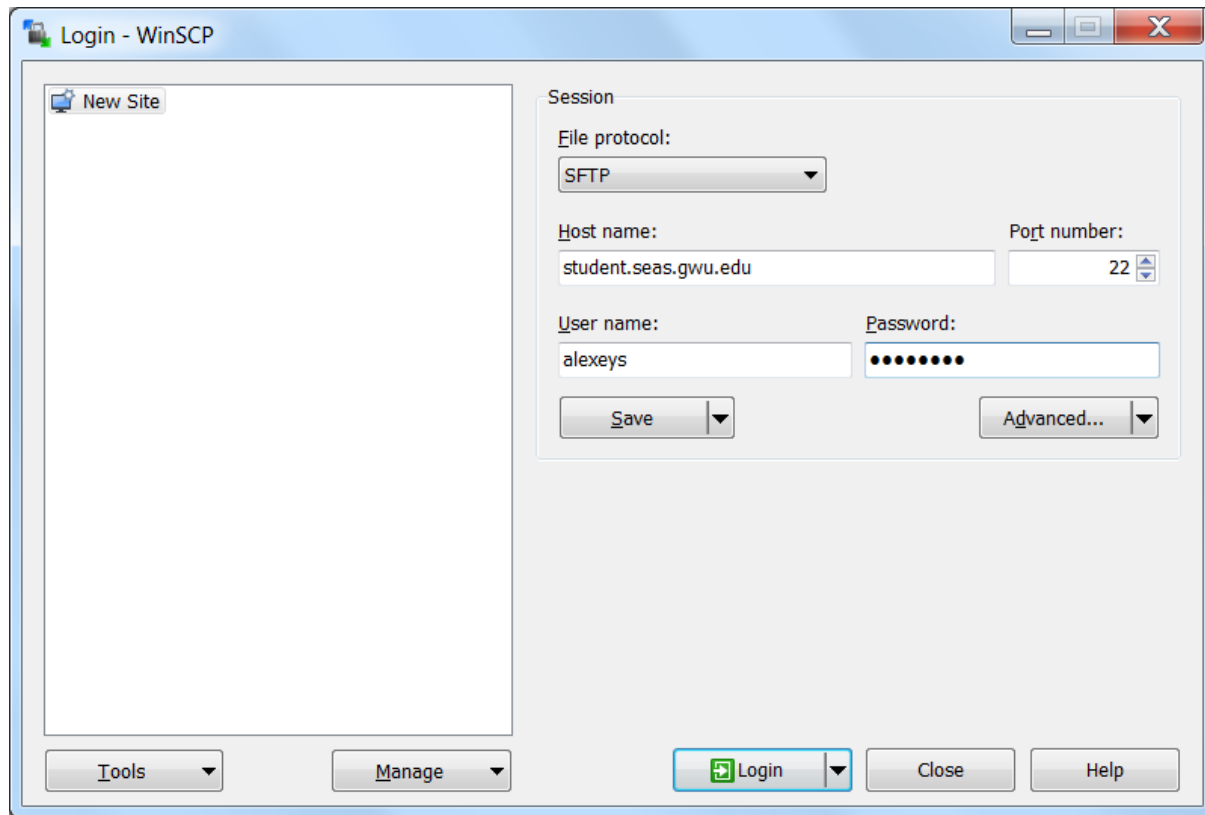
Downloading and running WinSCP

- You can download WinSCP from <http://winscp.net/eng/download.php>
- Either the download package or the portable zipped version should work.
- If prompted, choose the “commander” interface
- You should see the following screen when you open WinSCP →



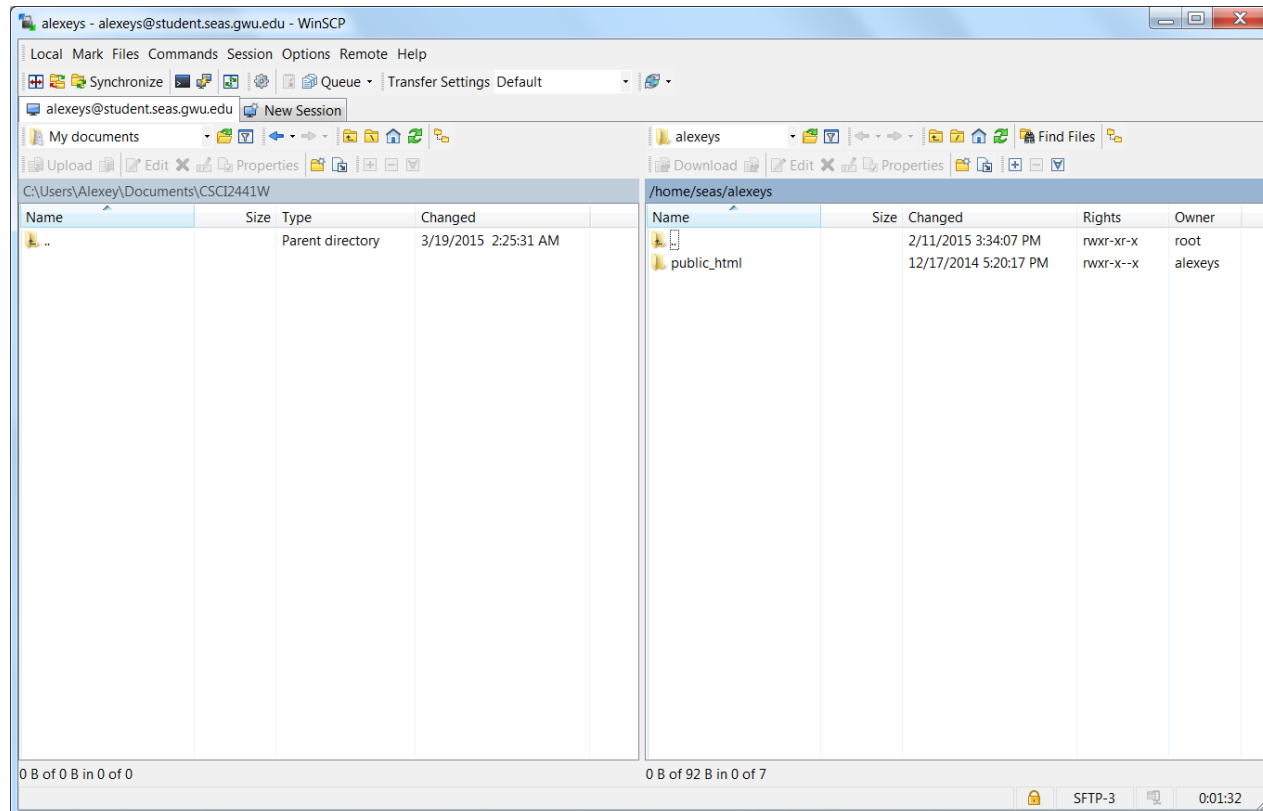
Connecting to the SEAS webserver with WinSCP

- Fill out the fields as follows ➔
- Note: put in your own SEAS username and password – this is an example. Also, WinSCP is set to SFTP and port 22 by default, but other software will not necessarily do this – you may need to set that manually for software like FileZilla and Cyberduck.



Connecting to the SEAS webserver with WinSCP Part 2

- Click the “Login” button after you have filled out the fields, and click yes to any dialog boxes. Eventually you should see a screen like this:
- Now you can move files between your computer (left) and the webserver (right)



Connecting to the SEAS webserver with WinSCP Part 3

- Go into the public_html folder – this folder is accessible from the internet, and if you put any html/php files in there, they will be accessible as web pages at
<http://student.seas.gwu.edu/~username/filename.extension>
- You can make more folders inside the public_html folder, the contents of which will also be accessible.
- Ideally, you should make a folder for your project under public_html, and keep the website portion of the project in there:
<http://student.seas.gwu.edu/~username/project/project.php>
- You can then connect to your MySQL database through php (see example from in-class exercise).

Step 3: Connect to the GWU MySQL server

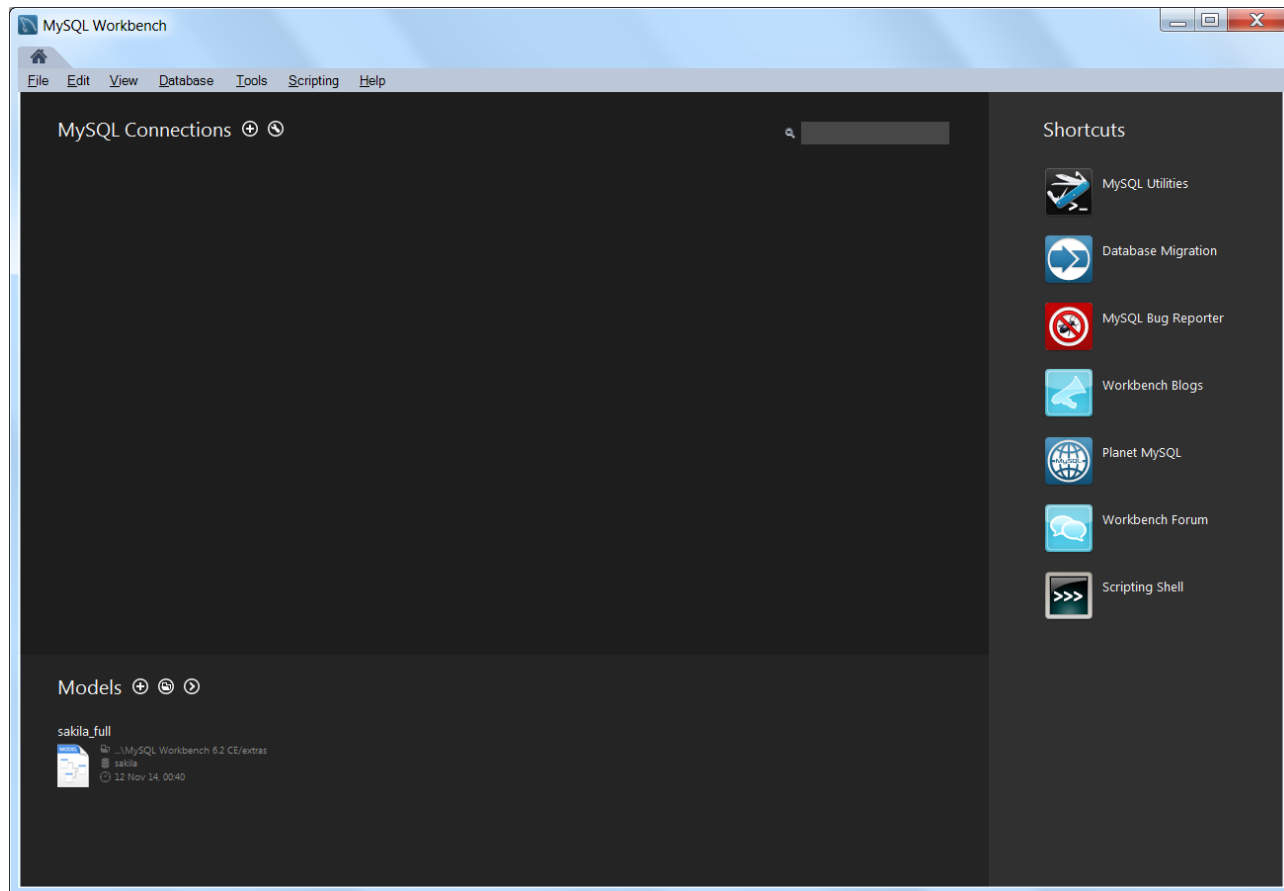
- It is highly recommended that all students use MySQL Workbench for this – there is both a Windows and Mac version.
- If possible try to download the latest version, but if this doesn't work for you, you may need to use a lightly older and/or portable version.

Downloading MySQL Workbench

- Download the latest version of MySQL Workbench from here: <http://dev.mysql.com/downloads/workbench/>
- You should download the installer for MySQL Workbench only, not the top result which can install everything, including your own server – unless you want the server, which you do not need. You can also get a portable zipped version.
- Note that if you are using Windows, you will need to install a .NET framework update (<http://www.microsoft.com/en-us/download/details.aspx?id=17113>) unless you already have it, as well as a Visual C++ redistributable package (<http://www.microsoft.com/en-us/download/details.aspx?id=40784>). Be sure to choose the right file to download, otherwise you will get errors (most likely the x64 one, possibly the x86 one depending on your system – but not arm).
- If you are having trouble with the latest version, you can also download a slightly older version (either install or zip): <http://dev.mysql.com/downloads/workbench/6.1.7.html>

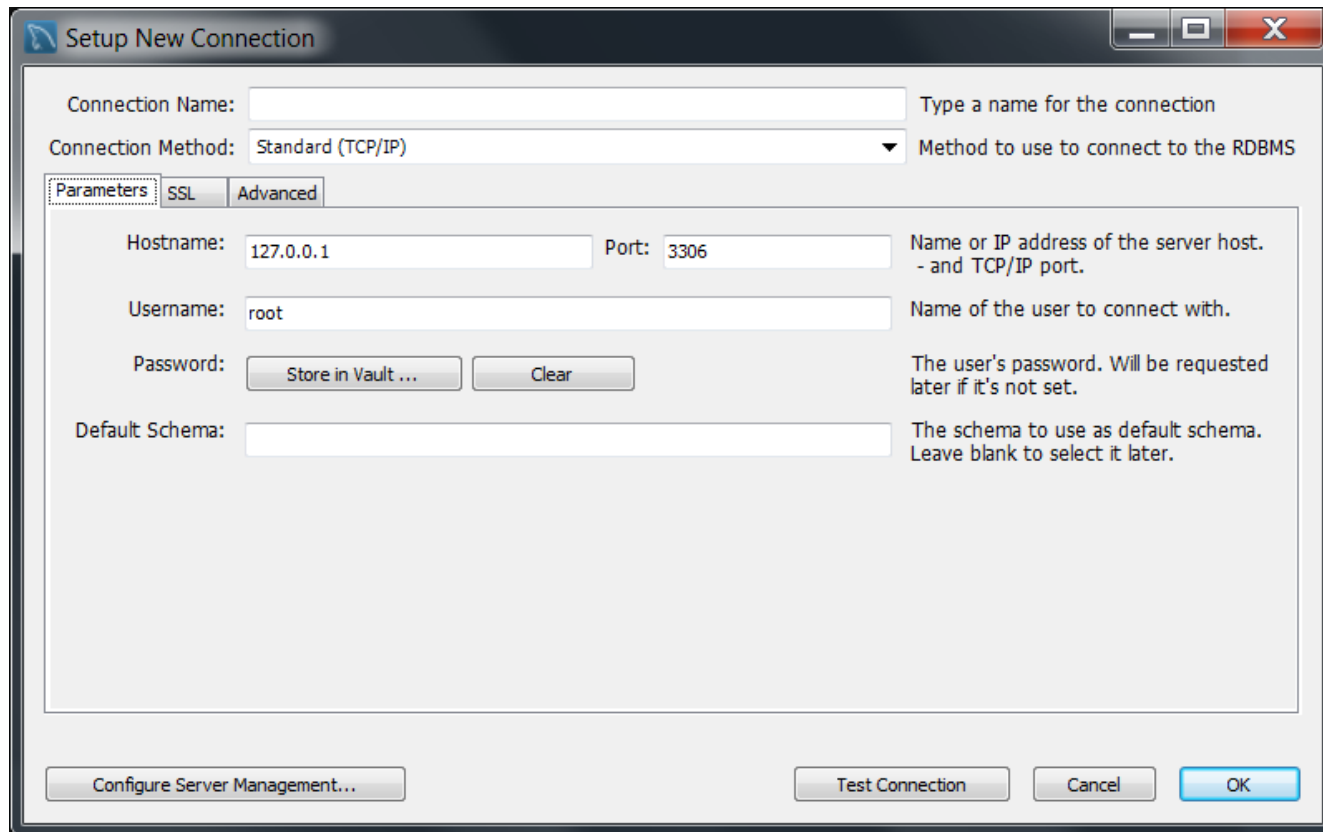
Running MySQL Workbench

- When you first run MySQL Workbench, you will see a screen like this. Click the + next to “MySQL Connections” to begin setting up your connection.



Connecting to the SEAS MySQL Server with MySQL Workbench

- Once you click the + as indicated previously, you will see the following popup window. Change the Connection Method option to “Standard TCP/IP over SSH”, and the window should change.



The screenshot shows the 'Setup New Connection' dialog box in MySQL Workbench. The 'Connection Name' field is empty, with a placeholder text 'Type a name for the connection'. The 'Connection Method' is set to 'Standard (TCP/IP)' with a dropdown arrow, and a placeholder text 'Method to use to connect to the RDBMS'. Below these are three tabs: 'Parameters' (selected), 'SSL', and 'Advanced'. The 'Parameters' tab contains the following fields:

- Hostname:** 127.0.0.1
- Port:** 3306
- Username:** root
- Password:** A field with a 'Store in Vault ...' button and a 'Clear' button.
- Default Schema:** An empty field.

Help text for the fields:

- Hostname:** Name or IP address of the server host. - and TCP/IP port.
- Username:** Name of the user to connect with.
- Password:** The user's password. Will be requested later if it's not set.
- Default Schema:** The schema to use as default schema. Leave blank to select it later.

At the bottom of the dialog are four buttons: 'Configure Server Management...', 'Test Connection', 'Cancel', and 'OK'.

Connecting to the SEAS MySQL Server with MySQL Workbench Part 2

- Now fill in a name for the connection – it can be whatever you like. Then fill in the other fields as shown, using your own SEAS username in both the “SSH username” and “username” fields.

Setup New Connection

Connection Name: Type a name for the connection

Connection Method: Method to use to connect to the RDBMS

Parameters ☒ SSL ☐ Advanced

SSH Hostname: SSH server hostname, with optional port number.

SSH Username: Name of the SSH user to connect with.

SSH Password: Store in Vault ... Clear SSH user password to connect to the SSH tunnel.

SSH Key File: ... Path to SSH private key file.

MySQL Hostname: MySQL server host relative to the SSH server.

MySQL Server Port: TCP/IP port of the MySQL server.

Username: Name of the user to connect with.

Password: Store in Vault ... Clear The MySQL user's password. Will be requested later if not set.

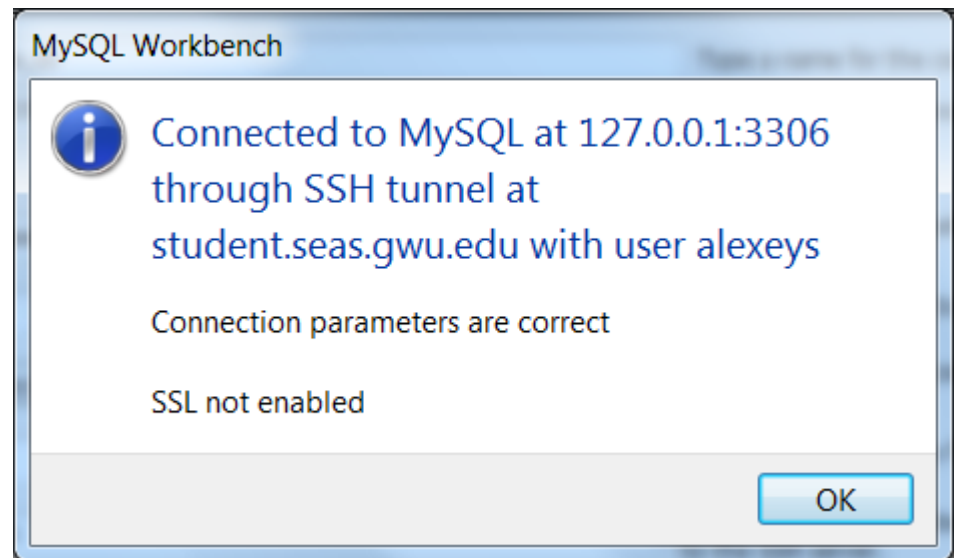
Configure Server Management... Test Connection Cancel OK

Connecting to the SEAS MySQL Server with MySQL Workbench Part 3

- Now, for the “SSH password” field, use the “Store in Vault” button and enter your SEAS password.
- Then, for the “password” field at the bottom, there are several options. Most students will need to enter “secret15”. If this does not work in the next steps, try entering “\$ecret2015” instead. If this still does not work, then you will need to contact SEAS Computing Facility to get your password.
- Note: You should leave the “SSH Key File”, MySQL Hostname”, and “MySQL Server Port” fields untouched.

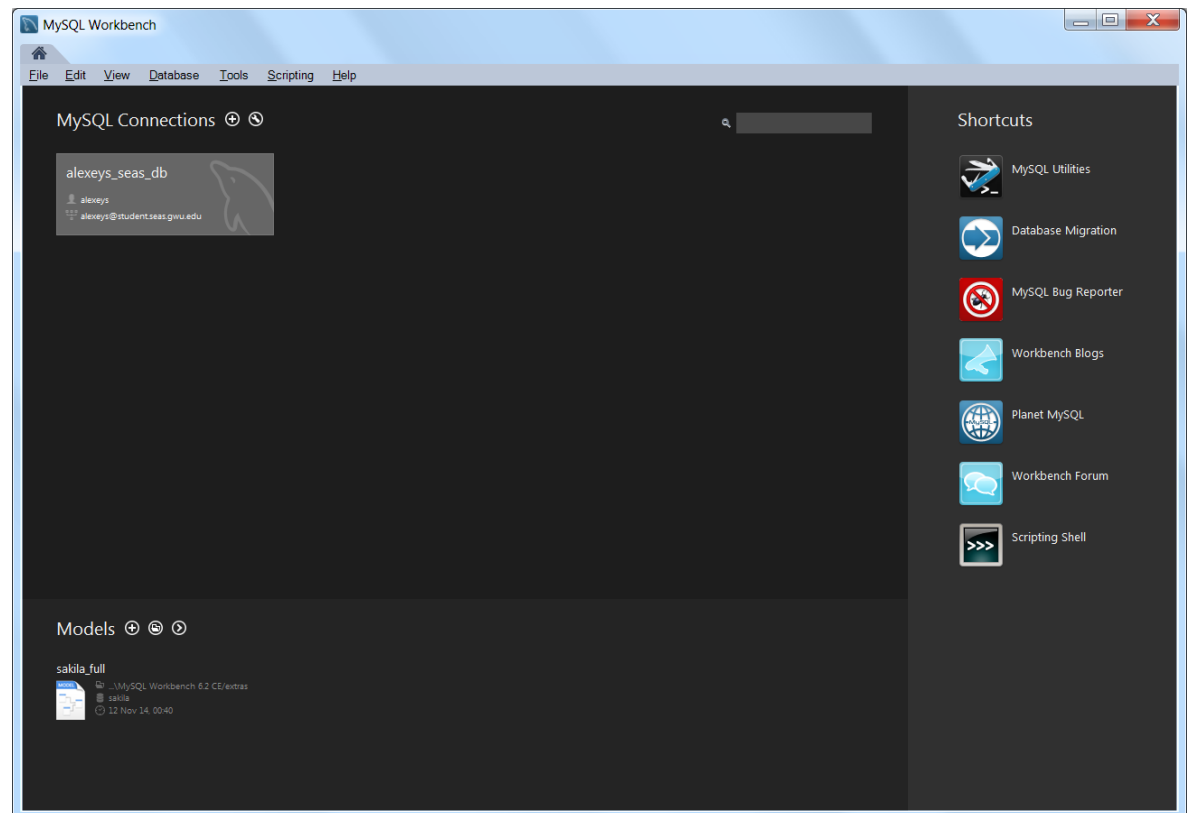
Connecting to the SEAS MySQL Server with MySQL Workbench Part 4

- Once you have entered everything, click the “Test Connection” button, and then click “Continue” on any dialog boxes that pop up.
- If you get a popup asking for a password, then one or both of the passwords you entered is wrong, and you should go back and reenter them.
- If you get a popup that looks like this (with or without the line about SSL), then everything is working correctly →



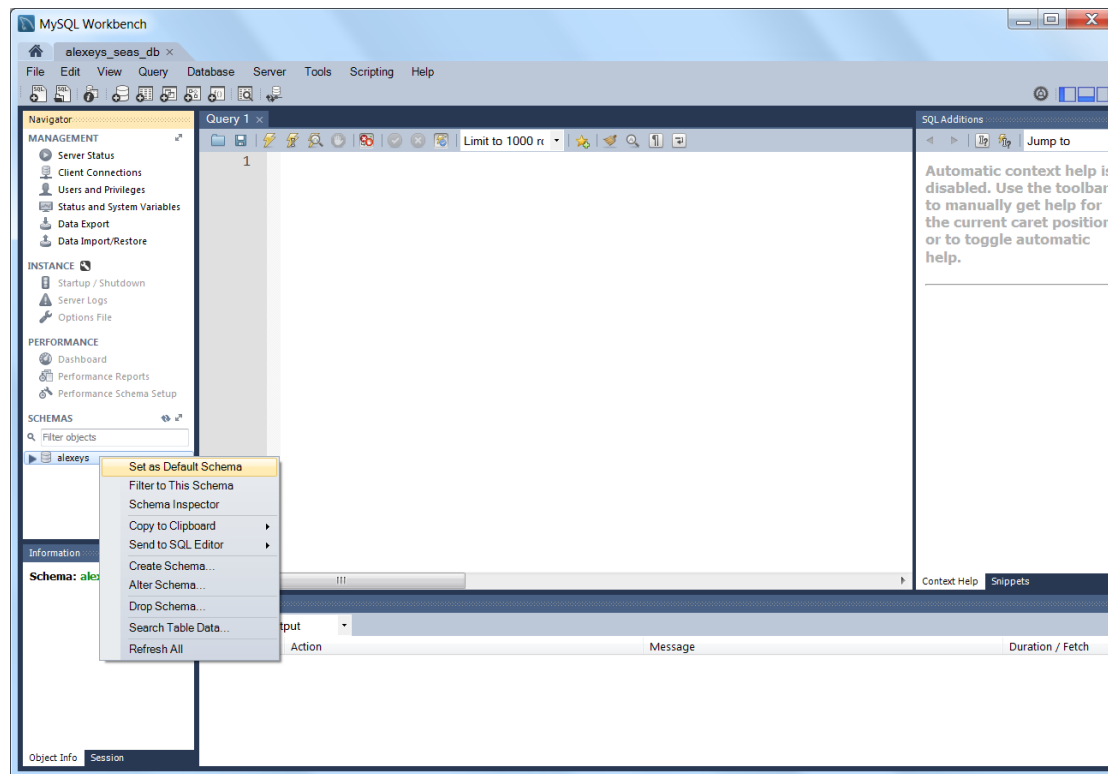
Connecting to the SEAS MySQL Server with MySQL Workbench Part 5

- If you got the “Connection parameters are correct” message, then click OK on that, and click OK on the connection window. Then you should see your new connection:
- Now click on the connection you just created



Connecting to the SEAS MySQL Server with MySQL Workbench Part 6

- You should now see a screen like this, and you should see your username on the left side of the screen – right click on it and select “Set as Default Schema” as shown.



Connecting to the SEAS MySQL Server with MySQL Workbench Part 7

- At this point you should be able to execute queries on your database, and everything should be set up.
- If you had problems with the second password, with neither of the provided ones working, you will need to contact SEAS Computing Facility at support@ticket.seas.gwu.edu
- You can also try to visit the SEAS Computing Facility office on the B2 level in SEH (toward the right after exiting the elevators).