

For this Milestone we will be building the actual database on the MS SQL Server you installed during milestone 2. In order to complete this milestone you will need to be able to transfer files from your local PC to your AWS instance. You should have already downloaded and install WinSCP from the directions in IvyLearn. Now you will need to configure WinSCP to connect to your server.

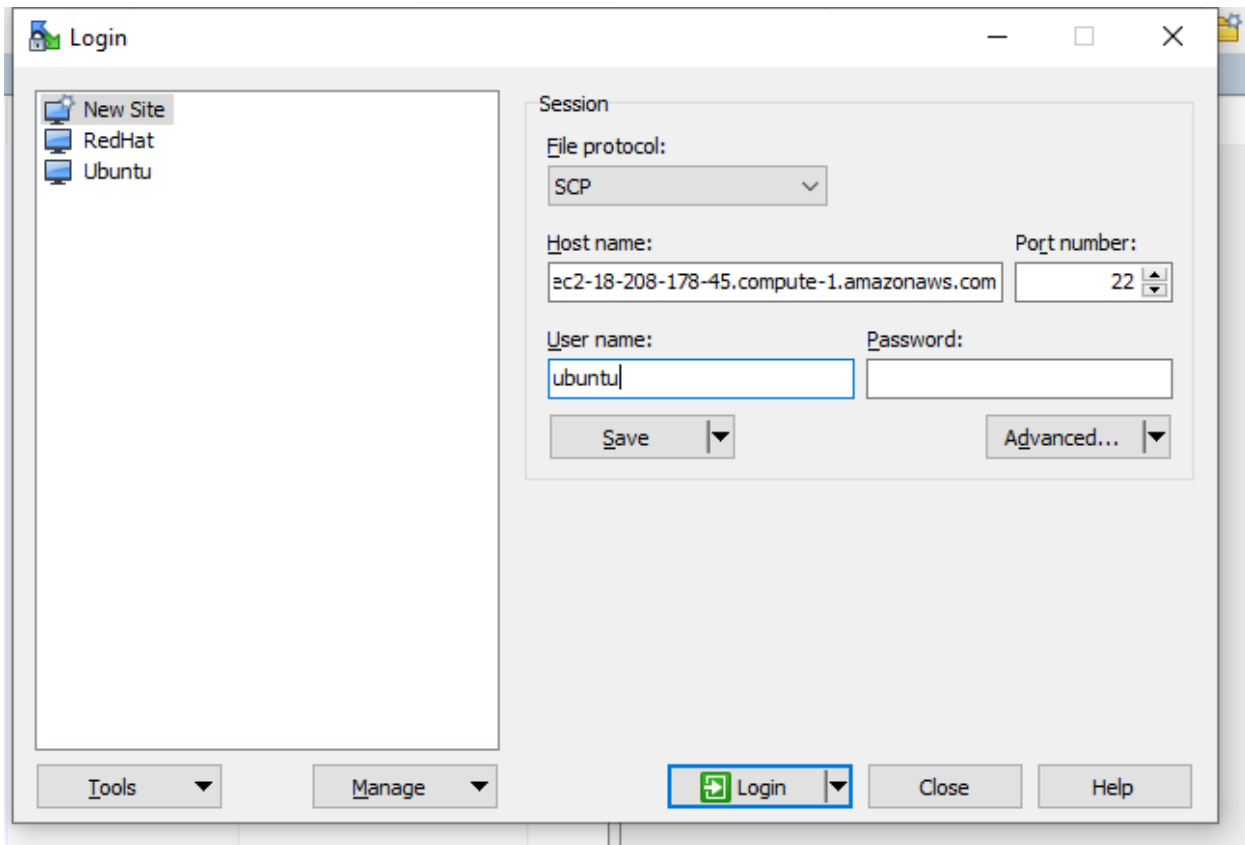
### Configuring WinSCP

First launch WinSCP and configure the Login page as indicated below

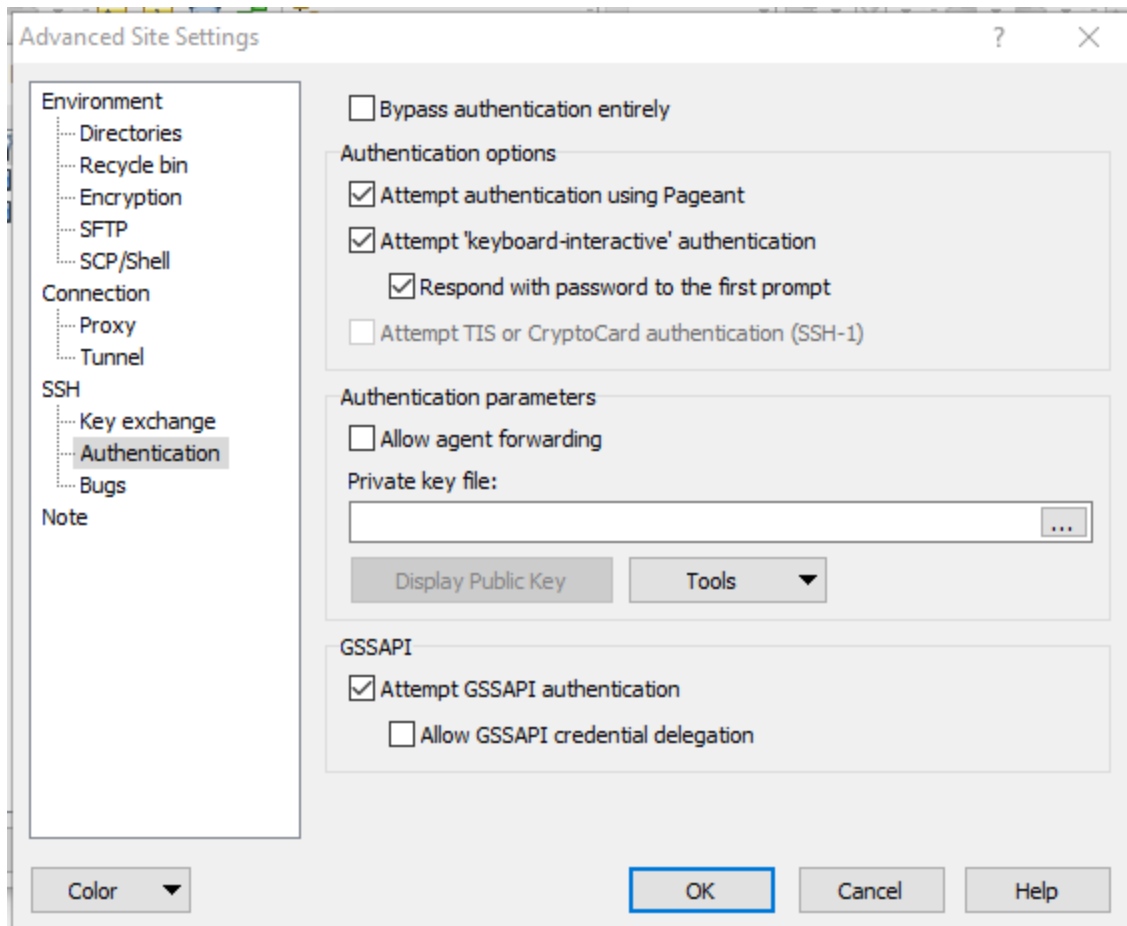
File Protocol: SCP

Host Name: Your Amazon Instance name

Username: Ubuntu

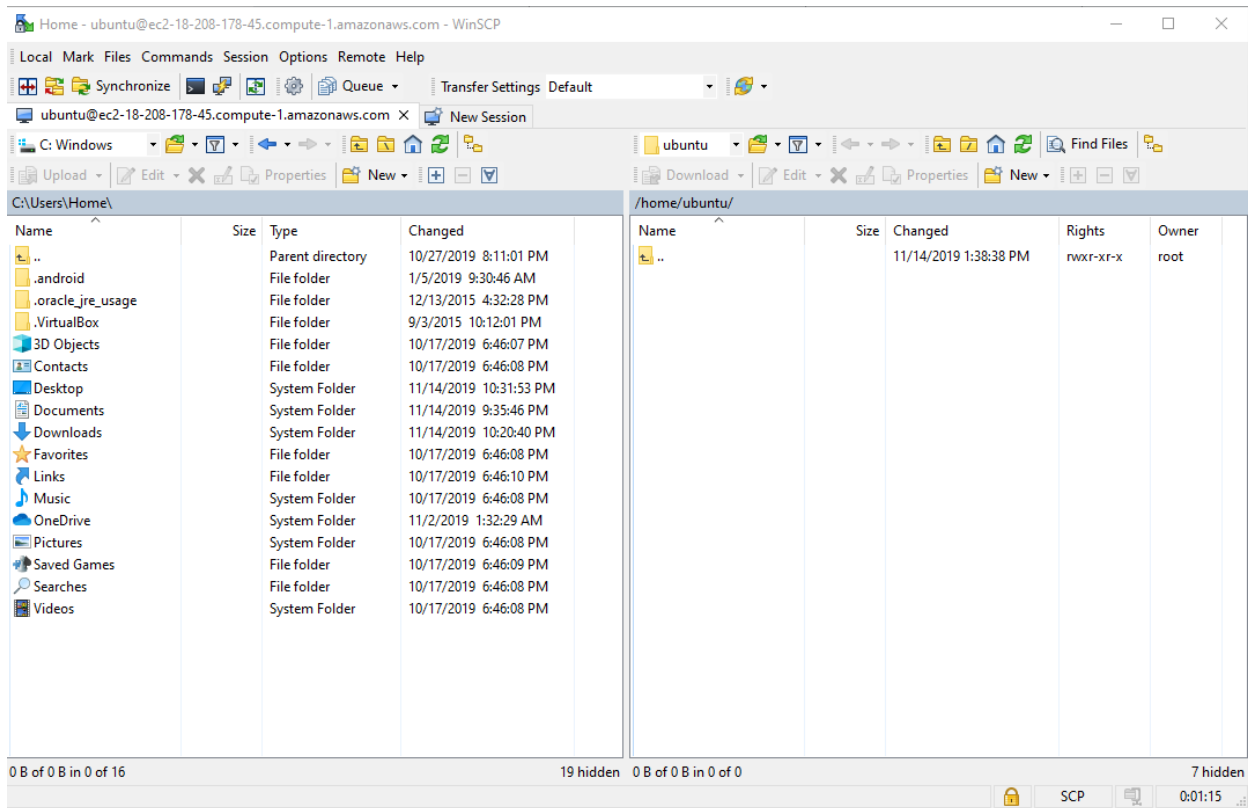


Then you need to configure WinSCP to use your keypair to authenticate. You do this by clicking on the Advanced button and selecting Authentication under the SSH heading as shown below



From this window browse and select the private key you converted and have been using with PuTTY for your terminal connection. Once you have located that .ppk key file click OK. You are now ready to click login.

You should end up with a window that looks similar to the one below. In the right hand pane you have your local PC in the left your Linux Server in AWS.



## Transferring the files

Once you are connected to your Linux box you will want to browse in the left hand pane to the location where you downloaded and extracted the .sql files from the Module Assignment page. Then drag the two files to the right hand pane to upload them to your Linux Instance. When the upload has completed you will see the files in the right hand pane. You can now close WinSCP.

## Creating the Database

With the script files uploaded it is now time to connect via PuTTY to your AWS instance and create the database. The files you uploaded will be in your home directory which can be accessed at the path of /home/Ubuntu

In order to create the database we will use the sqlcmd utility. Use the command below to enter into the sqlcmd utility

```
/opt/mssql-tools/bin/sqlcmd -S localhost -U SA -P YOURPASSWORD
```

This should bring you to a prompt that looks like the image below



From here you are ready to build your database using the command below

*CREATE DATABASE sample*

Once you have typed the command hit enter to get a new line. Then type GO and press enter again. Include a screenshot of the result, then type Exit to leave SQLCMD

```
1> CREATE DATABASE sample
2> GO
1> █
```

### **Build the Tables in the database**

In order to create the tables in the database we will need to execute the `sample_model.sql` file. This file contains a series of SQL commands that will build the tables. We will again be using SQLCMD but this time we will be passing the SQL Script file that you uploaded earlier in the lab. The command below should be executed in your PuTTY window while you are in your home directory. If you need to navigate to your home directory you can do so with the command `cd ~`

```
/opt/mssql-tools/bin/sqlcmd -S localhost -U SA -P YourPassword -i sample-model.sql
```

Once this command has completed include a screenshot below of the output.

```
ubuntu@ip-172-31-58-34:~$ /opt/mssql-tools/bin/sqlcmd -S 127.0.0.1 -U SA -P Stuff1111 -i sample-model.sql
ubuntu@ip-172-31-58-34:~$ █
```

### **Load the Data into the Tables**

Now that your database has tables in it we need to load data into the tables. The sample data we are going to use is in the `sample-data.sql` file that you uploaded to your server with WinSCP. In order to execute this script we will use the same command as when we built the tables and simply replace the `sample-model.sql` filename with the filename `sample-data.sql`.

Once the script has finished include a screenshot of the output here.



ubuntu@ip-172-31-58-34: ~

```
0
60 Camembert Pierrot                28      34.00 15 - 300 g rounds
0
61 Sirop d'érable                    29      28.50 24 - 500 ml bottles
0
62 Tarte au sucre                    29      49.30 48 pies
0
63 Vegie-spread                      7      43.90 15 - 625 g jars
0
64 Wimmers gute Semmelknödel        12      33.25 20 bags x 4 pieces
0
65 Louisiana Fiery Hot Pepper Sauce  2      21.05 32 - 8 oz bottles
0
66 Louisiana Hot Spiced Okra        2      17.00 24 - 8 oz jars
0
67 Laughing Lumberjack Lager        16      14.00 24 - 12 oz bottles
0
68 Scottish Longbreads              8      12.50 10 boxes x 8 pieces
0
69 Gudbrandsdalsost                15      36.00 10 kg pkg.
0
70 Outback Lager                    7      15.00 24 - 355 ml bottles
0
71 Flotemysost                      15      21.50 10 - 500 g pkgs.
0
72 Mozzarella di Giovanni           14      34.80 24 - 200 g pkgs.
0
73 Röd Kaviar                       17      15.00 24 - 150 g jars
0
74 Longlife Tofu                    4      10.00 5 kg pkg.
0
75 Rhönbräu Klosterbier             12      7.75 24 - 0.5 l bottles
0
76 Lakkalikööri                   23      18.00 500 ml
0
77 Original Frankfurter grüne Soße  12      13.00 12 boxes
0
78 Stroopwafels                     22      9.75 24 pieces
0
```

(78 rows affected)

1> █