

CS 3200 - Database Design - Fontenot
Mini HW 00 - Getting Set Up

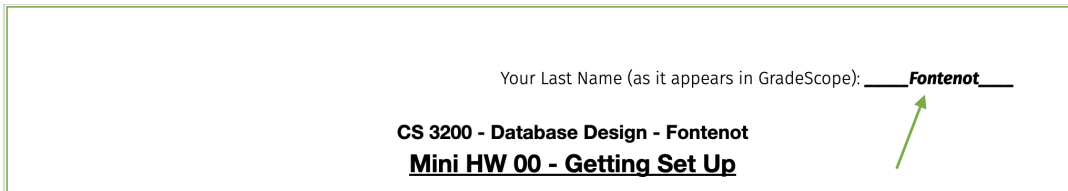
Early EC Due Date: Sept 8 @ 11:59pm EST to GradeScope
Regular Due Date: Sep 10 @ 11:59pm EST to GradeScope

Credit:

- The points you earn on this Mini HW 00 assignment will become **Extra Credit** for Exam 1.
- You can earn a total of 7 points towards Exam 1 by properly completing the questions below and submitting the assignment on-time (Sep 10 @ 11:59pm EST).
- You can earn an additional 3 points towards Exam 1 by submitting this assignment by the early deadline (Sep 8 @ 11:59pm EST).

Directions:

1. In Google Drive, from the **File Menu**, save a copy of this document to your Google Drive or download a Word Document format of the assignment doc.
2. Update your document header to include your last name as shown in this screenshot:



3. Complete the steps and answer the questions on the subsequent pages. Where screenshots are requested, please do not take pictures of your laptop screen with your phone. (See [this tutorial](#) for Macs. See [this tutorial](#) for Windows)
4. Save as or Export to PDF
5. Upload your assignment to GradeScope by the deadline. **It is your responsibility to associate the assignment questions with the correct page in your PDF in the GradeScope interface** (See [this tutorial](#) for more info).

Goals:

- Join Slack and complete your profile
- Properly install Docker Desktop and MySQL
- Properly install JetBrains DataGrip

Slack

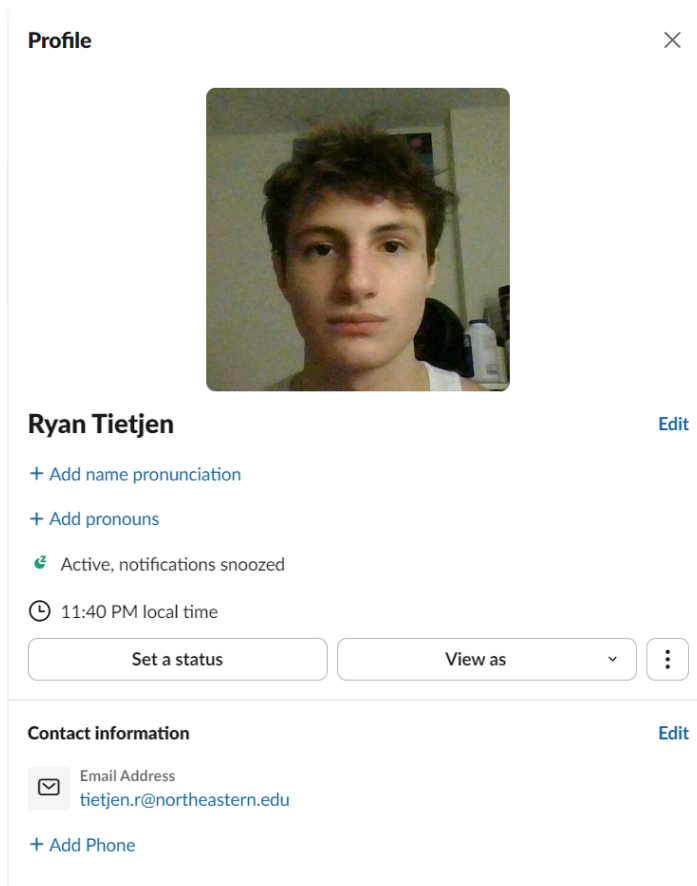
We will use Slack extensively to communicate this semester. So, it is important that you join my Slack Org and add yourself to the correct channel. You're responsible for knowing anything that is communicated via Slack. Plan to check it at least once a day.

Do the following:

- Install the Slack app if you haven't done so already.
- Make sure you've joined *Fontenot's Classes* Slack org via [this](#) link. You must use your Northeastern Email address to join.
- Complete your profile in Slack including a clear head shot. This helps to learn names and make a big class more personal.
- Join the **#24f-cs3200** channel. We will use this for general as well as the #24f-cs3200 general class channel.

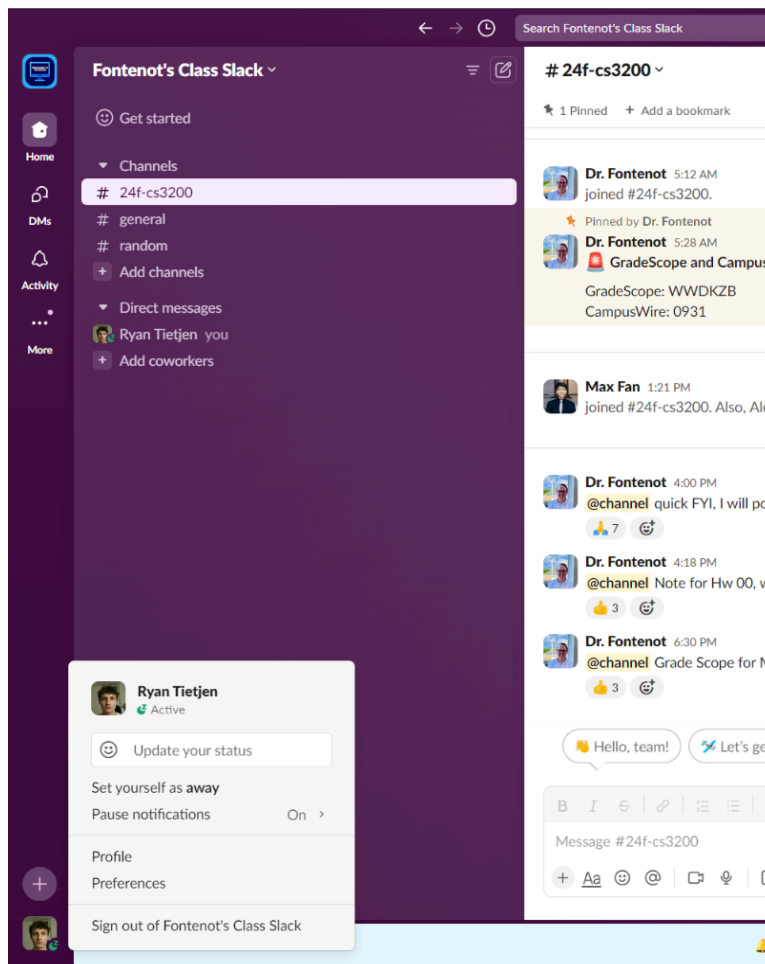
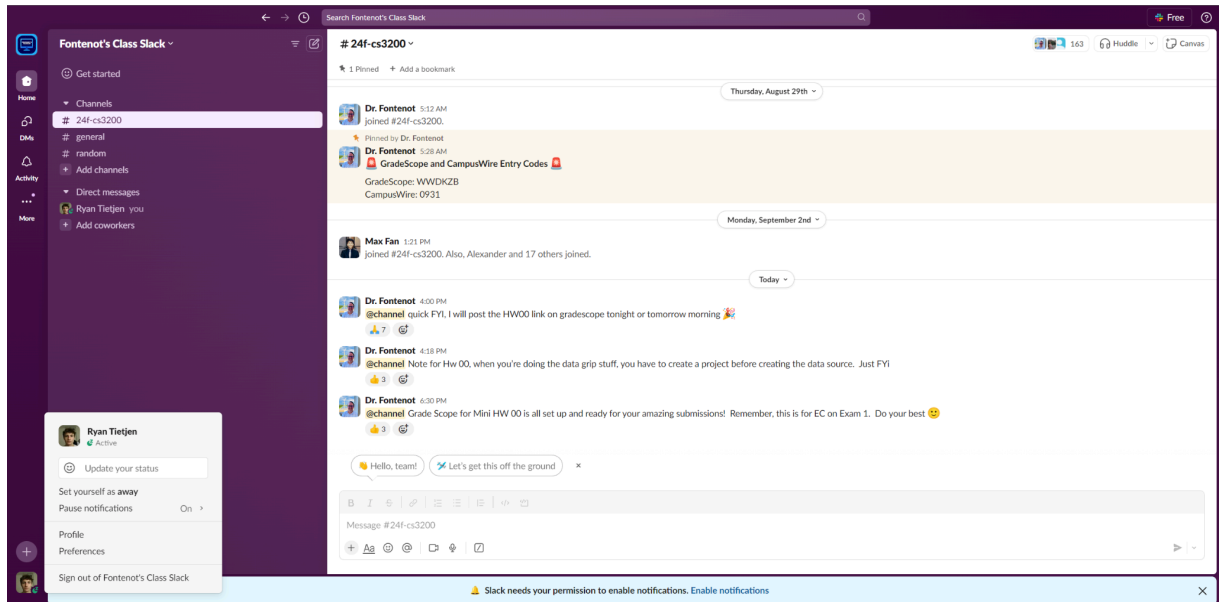
Questions:

1. In Slack, go to your profile that you've filled out. Take a screenshot of your profile and paste below.
[1 point]



Your Last Name (as it appears in GradeScope): **Tietjen**

- In Slack, go to the #24f-cs3200 channel. Take a screenshot of the entire Slack window being sure to include your profile picture in the bottom left of the window so we can ensure the screen shot is from you. Paste the screenshot below. [1 point]

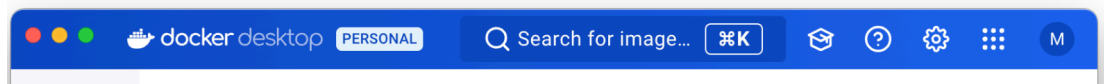


Docker Desktop and MySQL

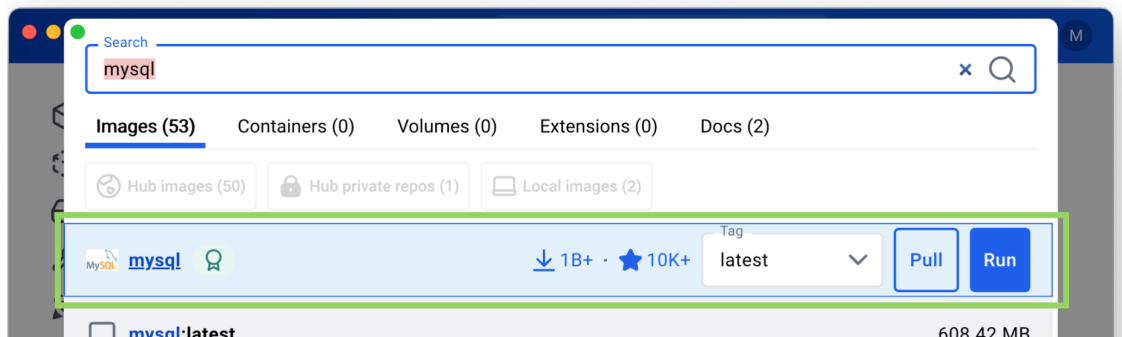
In CS 3200, we will primarily use MySQL 8 Community Edition, a popular relational database management system. We will run MySQL through Docker Desktop, a containerization platform you can run on your laptop.

Do the following:

- Install Docker Desktop.
 - [Instructions for Windows](#) - I recommend choosing the WSL-2 backend option. Under the section “Install Docker Desktop on Windows”, follow the “**Install Interactively**” steps, not “Install from the Command Line” steps.
 - [Instructions for Mac](#) - Follow the “Install Interactively” steps, not the “Install from the Command Line” steps.
- Start Docker Desktop and accept the license agreement.
- Pull the MySQL Image and run it.
 - In the window title bar of Docker Desktop, you’ll see a search bar.



- Search for **MySQL**. You should see something similar to the following screenshot.



- Click **Run**. (Do NOT click run again on the pop up until you finished the next steps)
- In the popup, expand *Optional Settings*. Fill in the following information:
 - Container Name: **mysql-<your last name>** (Of course, replace <your...> with your actual last name. Make sure to remove the < and > as well.)
 - Host port (the first one): **3307**
 - Host Port (the second one): **33070**
 - Environment Variables:
 - Variable: **MYSQL_ROOT_PASSWORD** (type that literally, don't replace with a password)
 - Value: *Put some password that you will remember. It doesn't need to be long and complicated. DO NOT use a password that you use anywhere else, though.*
 - See the screenshot on the next page for an example.

Your Last Name (as it appears in GradeScope): **Tietjen**

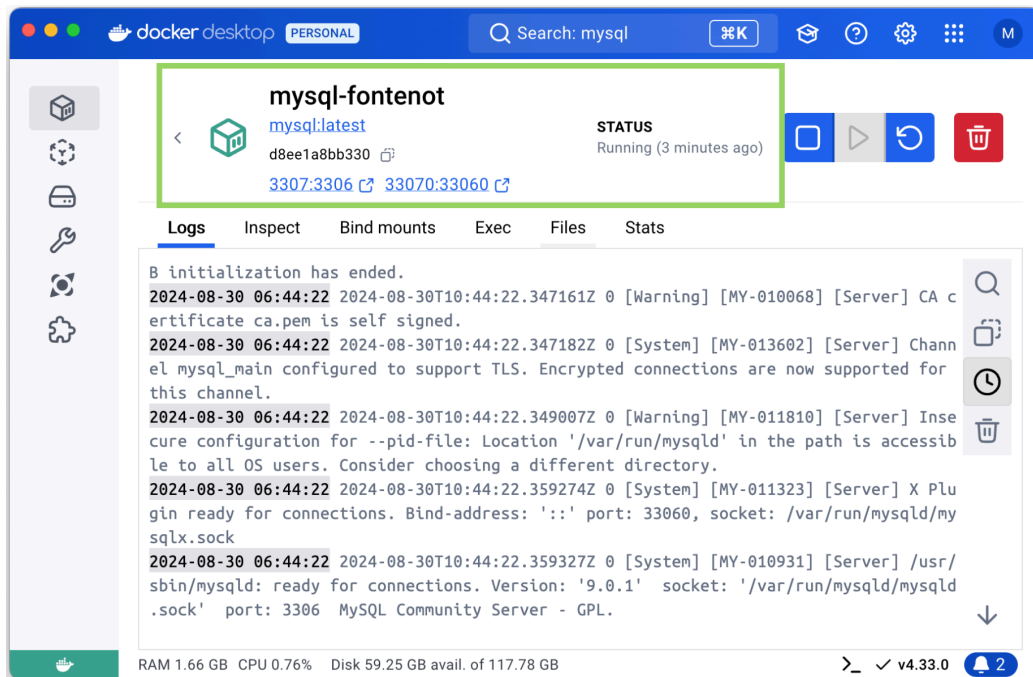
- After you've filled out everything, click **Run**. Downloading the MySQL Image and starting the container may take as long as a couple minutes.

The screenshot shows the 'Run a new container' dialog for the 'mysql:latest' image. The 'Optional settings' section is expanded, showing the following fields:

- Container name:** A text input field containing 'mysql-fontenot'. Below it, a note states: 'A random name is generated if you do not provide one.'
- Ports:** A section with the instruction 'Enter "0" to assign randomly generated host ports.' It contains two rows of input fields for 'Host port'. The first row has '3307' and ':3306/tcp'. The second row has '33070' and ':33060/tcp'.
- Volumes:** A section with two input fields: 'Host path' and 'Container path', separated by a plus sign.
- Environment variables:** A section with two input fields: 'Variable' and 'Value'. The 'Variable' field contains 'MYSQL_ROOT_PASSWORD' and the 'Value' field contains 'd0nt_L00k!'. There is a plus sign to the right of the 'Value' field.

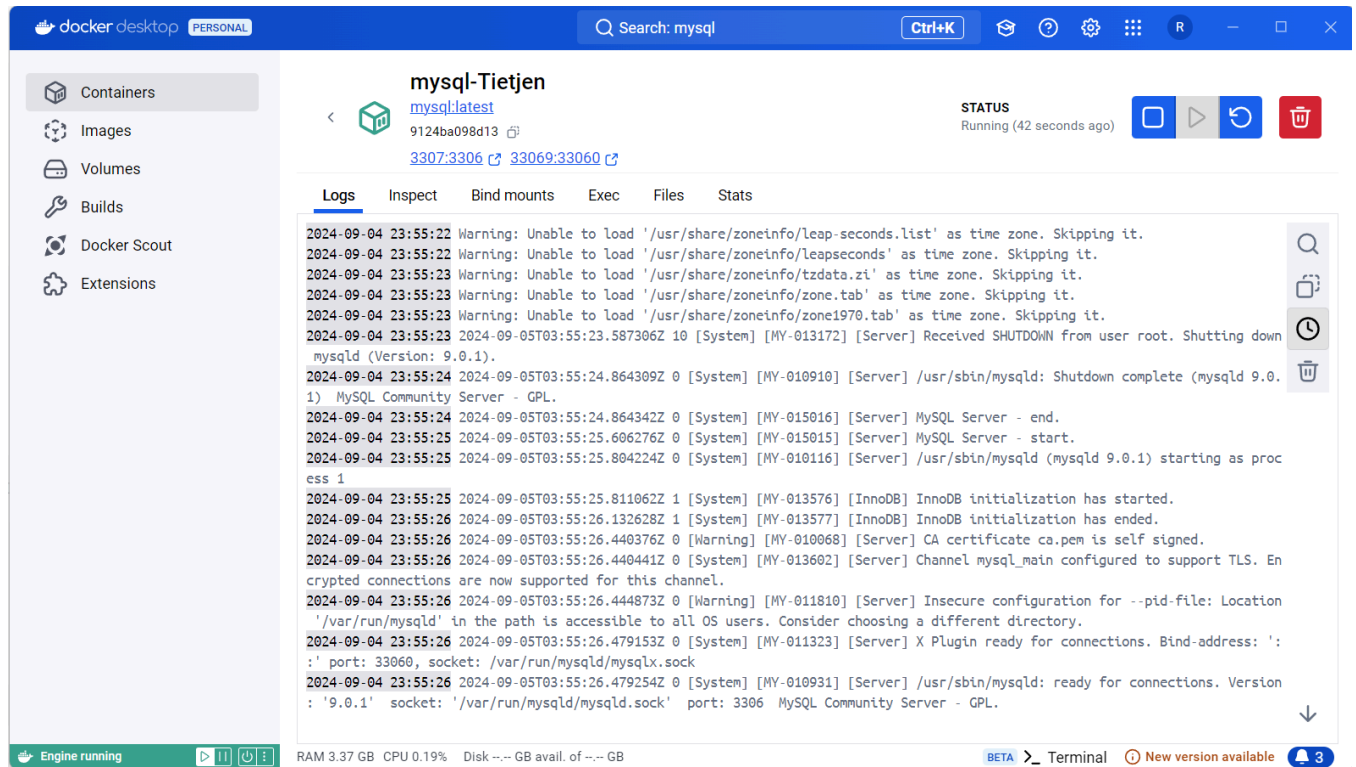
At the bottom right of the dialog are two buttons: 'Cancel' and 'Run'.

- Once you click Run, you should be taken to the Container logs, which look like this.



Questions:

3. Take a screenshot of Docker Desktop showing the logs. **Make Sure** the entire window is visible, especially the part outlined in Green in the last screenshot on the previous page. Paste the screenshot below. [3 points]

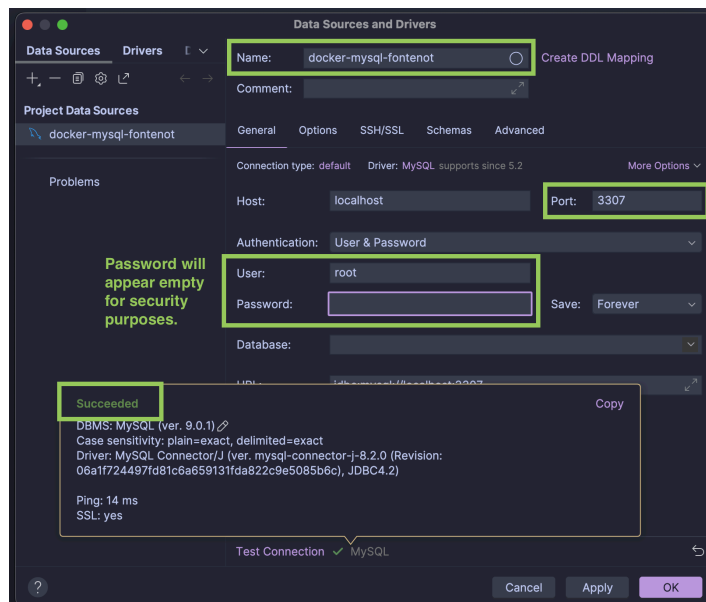


JetBrains DataGrip:

To interact with database systems, we will use DataGrip, a developer tool by JetBrains.

Do the Following:

- Apply [here](#) for a free Educational Licence from JetBrains.
- Download and install [JetBrains' DataGrip](#). Find more info at <https://www.jetbrains.com/datagrip/>.
 - If you have to wait for the educational license to be processed, you can still use DataGrip free for 30 days in the meantime.
- Make a folder named **24f-cs3200-<last_name>** somewhere on your computer (replace <last_name> with your actual last name). Take note of where you've created it in the filesystem.
- Launch DataGrip.
- Create your first DataGrip DataSource and connect it to MySQL.
 - From the file menu, choose **New > DataSource > MySQL > MySQL**. This will show the **Data Sources and Drivers** modal. Fill in the following data (leave everything else as is):
 - Name: **docker-mysql-<last_name>**
 - Port: **3307**
 - User: **root**
 - Password: *put whatever you provided as the password when creating the MySQL container in Docker Desktop.*
 - Above the Cancel/Apply/OK buttons, you may see a message asking you to install or update a particular driver. You need to allow this installation to take place.
 - Click **Test Connection**. You should get a "Succeeded" message. See screenshot below for an example of what everything should look like.
 - Take a screenshot of the **New Data Source** modal showing the "succeeded" message and paste it under the question below.
 - Click the OK button to save the Data Source. You can close DataGrip at this point.



Question:

4. Take a screenshot of the New Data Source modal showing that **Test Connection** was successful. The other information outlined in green in the previous screenshot must also be visible. Paste the screenshot below.

