Unit 01 Problem Set Submission Form

Overview

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Instructions

Put your name and SU email at the top. Answer these questions all from the lab. When asked to include screenshots, please follow the screen shot guidelines from the first lab.

Remember as you complete the problem sets it is not only about getting it right / correct. We will discuss the answers in class so it's important to articulate anything you would like to contribute to the discussion in your answer:

- If you feel the question is vague, include any assumptions you've made.
- If you feel the answer requires interpretation or justification provide it.
- If you do not know the answer to the question, articulate what you tried and how you are stuck.

This how you receive credit for answering questions which might not be correct.

Questions

1. Use docker-compose to start the containers. What is the command you typed to do this?

    Firstly went to the directory where learn-databases folder is found.
    Then used **docker-compose up -d**

2. What is the command to show the running docker containers?

    The command to show running docker containers is **docker-compose ps**

3. Provide a screenshot displaying evidence your containers are running (the output of the previous question should suffice).

```
hendi@hendi-Inspiron-7373: ~/learn-databases

hendi@hendi-Inspiron-7373:~/learn-databases$ docker-compose up -d
Creating network "learn-databases_learndb_net" with driver "bridge"
Creating learn-databases_mssql_1 ... done
Creating learn-databases_webapp_1  ... done
Creating learn-databases_adminer_1 ... done
Creating learn-databases_sqlpad_1  ... done
hendi@hendi-Inspiron-7373:~/learn-databases$ docker-compose ps
         Name                    Command              State           Ports
-------------------------------------------------------------------------------
learn-                    entrypoint.sh docker-    Up      0.0.0.0:5003->8080/tcp
databases_adminer_1       php-e ...
learn-                    /opt/mssql/bin/permiss   Up      1401/tcp,
databases_mssql_1         ions ...                         0.0.0.0:1433->1433/tcp
learn-                    /docker-entrypoint       Up      0.0.0.0:5002->3000/tcp
databases_sqlpad_1
learn-                    python app.py            Up      0.0.0.0:5001->8000/tcp
databases_webapp_1
hendi@hendi-Inspiron-7373:~/learn-databases$
```

4. Provision all the databases included in the Database provisioner application. Provide a screenshot as evidence they have been provisioned. Note: This might take some time so be patient!
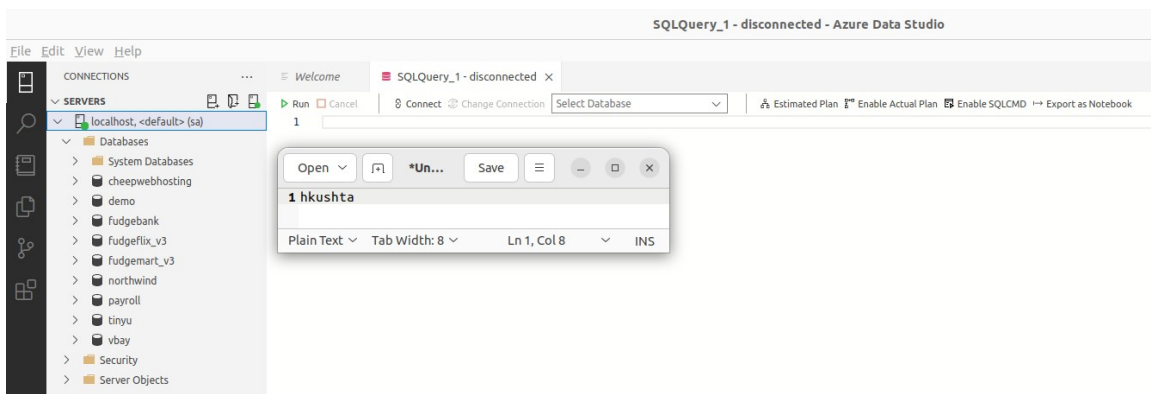
🛢 Database Provisioner

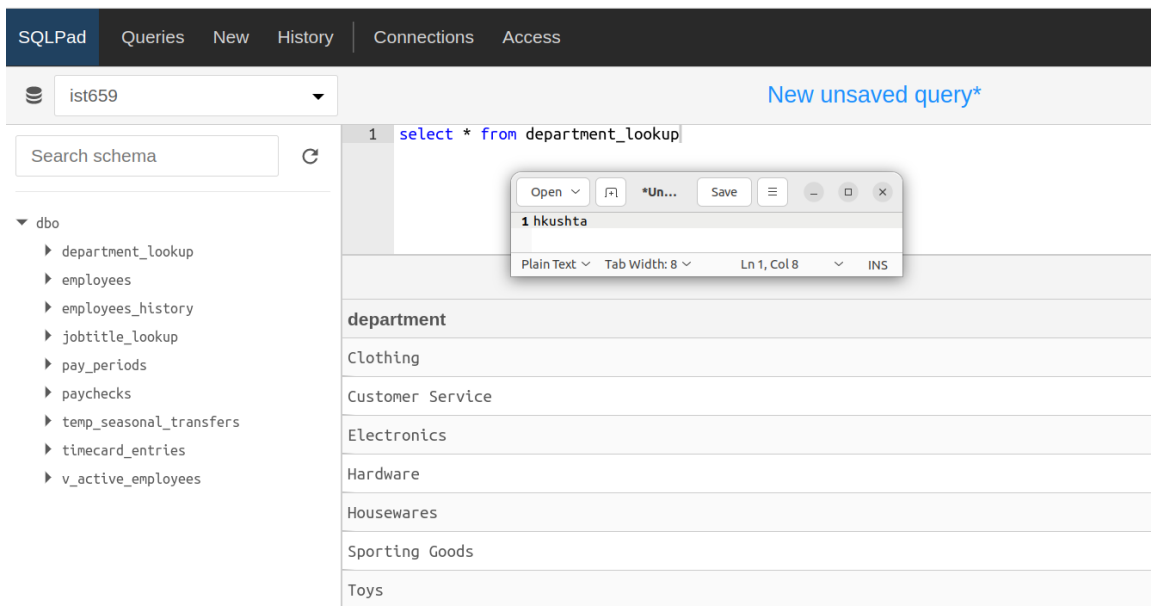Connection Information for SQL Server
🗄 mssql 🍴 1433 👤 sa 🔒 SU2orange!

Databases

Actions	Name	Info	Updatable	Created On	Data Last Updated On
Recreate Drop Update Remove	payroll	📖	Yes	2022-09-04 04:59:33.551952	2020-04-15 00:00:00
Recreate Drop	fudgebank	📖	No	2022-09-04 04:58:44.256430	N/A
Recreate Drop	demo	📖	No	2022-09-04 04:58:36.144464	N/A
Recreate Drop	fudgeflix-v3	📖	No	2022-09-04 04:58:03.497044	N/A
Recreate Drop	northwind	📖	No	2022-09-04 04:56:27.056624	N/A
Recreate Drop	fudgemart-v3	📖	No	2022-09-04 04:54:43.620313	N/A
Recreate Drop	vbay	📖	No	2022-09-04 04:54:35.622120	N/A
Recreate Drop	tinyu	📖	No	2022-09-04 04:54:29.819176	N/A
Recreate Drop	cheepwebhosting	📖	No	2022-09-04 04:54:22.184196	N/A

5. Connect to MS SQL Server using azure data studio and provide a screenshot of the databases under the connection. This will provide evidence your connection works and your databases were provisioned.

6. Connect to MS SQL server using SQL Pad. Specifically connect to the **payroll** database and then run this query:
   ```
   select * from department_lookup
   ```
   Include a screenshot of the query and output.

7. Connect to MS SQL server using Adminer, again connect to the **payroll** database. Include a screenshot of the structure of the **employees** table.
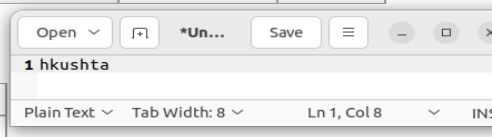
Table: employees

Select data   **Show structure**   Alter table   New item

Column	Type	Comment
employee_id	int	
employee_ssn	char(11)	
employee_firstname	varchar(100)	
employee_lastname	varchar(100)	
employee_hire_date	datetime	
employee_termination_date	datetime *NULL*	
employee_jobtitle	varchar(100)	
employee_department	varchar(100)	
employee_pay_rate	money	
employee_supervisor_employee_id	int *NULL*	
valid_from	datetime2	
valid_to	datetime2	

Indexes

PRIMARY	*employee_id*
UNIQUE	*employee_ssn*

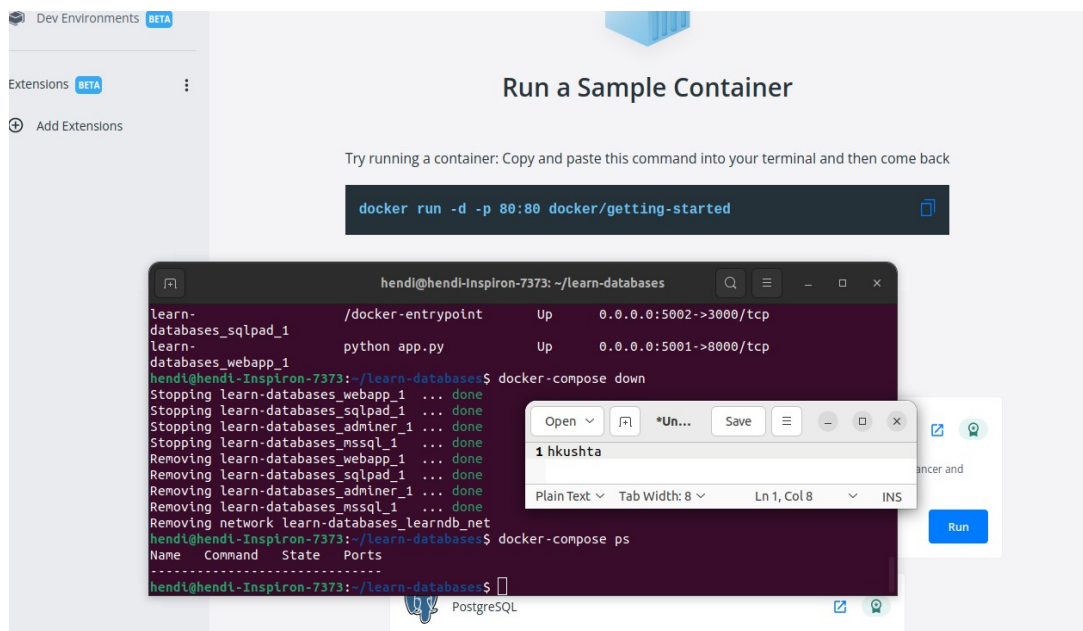Open ⌄   ⏹   *Un...   Save   ≡   — □ ×

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Plain Text ⌄   Tab Width: 8 ⌄   Ln 1, Col 8   ⌄   INS

8. What is the command to shut down the running docker containers?

   docker-compose down

9. Provide a screenshot displaying evidence your containers are no longer running (the output of the previous question should suffice).

Reflection

Use this section to reflect on your learning. To achieve the highest grade on the assignment you must be as descriptive and personal as possible with your reflection.

1. What are the key things you learned through the process of completing this assignment?

   How to use docker containers and how helpful can each one of them be.

2. What were the challenges or roadblocks (if any) you encountered on the way to completing it?

   I faced difficulties with connection to MS SQL server using Adminer, Even though I tried to connect with the credentials provided, it kept printing me the same error as in the print screen below.

Language: English

| *Adminer* 4.8.1 | Login |

php_network_getaddresses: getaddrinfo failed: Name does not resolve

System	MySQL
Server	db
Username	sa
Password	
Database	payroll

Login ☐ Permanent login

Then I saw the video online on Youtube from professor with the link below and all was set up ok.

https://www.youtube.com/watch?v=CxCUrQ6knRo.

My mistake was that I was using the system and server credentials wrong.

I had to use the credentials as in the screen shot below.

Login

System	MS SQL (beta) ⌄
Server	mssql
Username	sa
Password	••••••••••
Database	payroll

[Login] ☐ Permanent login

3. Were you prepared for this assignment? What can you do to be better prepared?

   Yes, I was prepared.

4. Now that you have completed the assignment rate your comfort level with this week's material. This should be an honest assessment: (choose one)

   4 ==> I understand this material and can explain it to others.
   3 ==> I understand this material.
   2 ==> I somewhat understand the material but sometimes need guidance from others.
   1 ==> I understand very little of this material and need extra help.