Install IBM Db2 Database (under Operational database section) -> [https://www.ibm.com/analytics/us/en/db2/trials (Links to an external site.)](https://www.ibm.com/analytics/us/en/db2/trials)

Do not click on the "Download for free" button.  Instead click on the "Download free Docker image" link underneath the button.  If you don't have Docker installed, you need to do that first.  Afterward, run the Docker Pull Command "docker pull ibmcom/db2" from a command line.  If successful, then follow the Quick Start instructions on page to execute a command like:

docker run -itd --name mydb2 --privileged=true -p 50000:50000 -e LICENSE=accept -e DB2INST1\_PASSWORD=kenward -e DBNAME=testdb -v luw:/database ibmcom/db2

Note that I substitute 2 variables here from the web page example, PASSWORD=<choose> and <db dir> to luw.  Whichever directory you use, you should create that directory first prior to running the command.

If successful, the next step on the web site is to execute this command ->

"docker exec -ti mydb2 bash -c "su - db2inst1" from the command line.

The above command will enter you into the “container” command prompt. Afterward run a command named "db2sampl" inside the “container” command prompt and it will create the sample database (and a set of tables) for you.

After “db2sampl” command is completed successfully. You can issue the following command to test out your installation. Enter the 3 commands in red below from your container command prompt and you should see the same results. Always connect to the database before any SQL statements. Always terminate the connection after you are all done.

[db2inst1@92a7b62a44b1 157b]$ db2 "connect to sample"

Database Connection Information

Database server = DB2/LINUXX8664 11.5.4.0

SQL authorization ID = DB2INST1

Local database alias = SAMPLE

[db2inst1@92a7b62a44b1 157b]$ db2 "select \* from department"

DEPTNO DEPTNAME MGRNO ADMRDEPT LOCATION

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A00 SPIFFY COMPUTER SERVICE DIV. 000010 A00 -

B01 PLANNING 000020 A00 -

C01 INFORMATION CENTER 000030 A00 -

D01 DEVELOPMENT CENTER - A00 -

D11 MANUFACTURING SYSTEMS 000060 D01 -

D21 ADMINISTRATION SYSTEMS 000070 D01 -

E01 SUPPORT SERVICES 000050 A00 -

E11 OPERATIONS 000090 E01 -

E21 SOFTWARE SUPPORT 000100 E01 -

F22 BRANCH OFFICE F2 - E01 -

G22 BRANCH OFFICE G2 - E01 -

H22 BRANCH OFFICE H2 - E01 -

I22 BRANCH OFFICE I2 - E01 -

J22 BRANCH OFFICE J2 - E01 -

14 record(s) selected.

[db2inst1@92a7b62a44b1 157b]$ db2 terminate

DB20000I The TERMINATE command completed successfully.

[db2inst1@92a7b62a44b1 157b]$

You can also execute a set of SQL statement in sequence by putting the commands in a text file. For example, if you have a file with the following content named test.sql. The differences here are that we strip out the db2 prefix keyword from each line and we put a semicolon to end each command. The – prefix denotes a comment.

-- sample test.sql file  
connect to sample;

select count(\*) from department;

select count(\*) from employee;

select empno from employee;

select empno from employee order by empno desc;

select empno,lastname,firstnme from employee order by lastname,firstnme;

terminate;

-- end of file

You can run a command “db2 -tvf test.sql” from the container command prompt and it will display the output of those SELECT statements on the screen.

Tips for transferring files between your local file systems to the container directory.

Here is the command I used to copy test.sql from my Mac terminal window to the container directory, assuming you are at the current directory where you created test.sql with the above content.

Fains-MacBook-Pro-2:sample2 fainbutt$ docker cp ./test.sql 92a7b62a44b1:./database/config/db2inst1/157a/.

For find your database path, first type "docker ps" from a NEW command prompt or terminal window.  For example:

Fains-MacBook-Pro-2:sample2 fainbutt$ docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

**92a7b62a44b1**  ibmcom/db2 "/var/db2\_setup/lib/…" 2 months ago Up 14 hours 22/tcp, 55000/tcp, 60006-60007/tcp, 0.0.0.0:50000->50000/tcp mydb2

Fains-MacBook-Pro-2:sample2 fainbutt$

Use the first string from the output as it is the container ID, then add a ":" behind it.  To find the path of your directory, use "pwd" command from inside your db2 environment.  For example:

[db2inst1@ce992c7f148c ~]$ pwd

/database/config/db2inst1

Since I created the **157a (e.g. mkdir 157a)** directory in the container home directory before I issue the docker cp command, I added that to the destination path. Hopefully this will make it easier for you to edit in your favorite editor locally and transfer the file to/from the virtual database environment as needed.