

CS1555/2055: Working with PostgreSQL using the DataGrip and the Console

DataGrip:

- Running queries:
 - Write your statements in a new “console”.
 - You can create a console by **Right clicking** on the schema | **New console**
 - You can save the console as a .sql file.
 - To run an .sql file you need to open the file using the menu **File | Open**
 - Select everything (ctrl+a or command+a) on the opened file and click run (or ctrl+enter or command+enter).
Make sure that you have selected the schema before running the query.
- Get the results:
 - When you run a query, the results are appearing at the bottom of the DataGrip.
 - You may want to copy them, click on the select table anywhere and then ctrl+a or command+a to select everything or on the top left corner of the table to select everything on the table. Then copy results.
 - There is also the option to save the result as file or to the clipboard by clicking the button with down arrow

Command Line

- You can use the psql shell or the command line to run the psql command. If you run the psql command, you need to put the directory of the installation into the environmental variable PATH.

```
psql -h %server% -U %username% -d %database% -p %port%
```

(the default is: `psql -h localhost -U postgres -d postgres`)

Example of the psql console:

```
> psql -h localhost -U postgres -d postgres
```

```
postgres=# select * from course;
```

course_no	name	course_level
CS1520	Web Applications	UGrad
CS1555	Database Management Systems	UGrad
CS1550	Operating Systems	UGrad
CS2550	Database Management Systems	Grad
CS1655	Secure Data Management and Web Applications	UGrad

(5 rows)

```
postgres=# \o out.txt
```

```
postgres=# select * from course;
```

```
postgres=# \q
```

```
> type .\out.txt
```

course_no	name	course_level
CS1520	Web Applications	UGrad
CS1555	Database Management Systems	UGrad
CS1550	Operating Systems	UGrad
CS2550	Database Management Systems	Grad
CS1655	Secure Data Management and Web Applications	UGrad

(5 rows)

- In order access the psql executable from anywhere on your machine,
 - You need to update the PATH environment variable with the path of the executable
 - On **PC (Windows)**
 - Go to **system properties**.
 - Click on **the Environment variables**
 - Found the **Path** variable and add the path to the psql executable (e.g., C:\Program Files\PostgreSQL\11\bin\psql.exe)
 - On **Mac (MacOS)**
 - Edit ~/.bash_profile and add the following line
 - export PATH="/Library/PostgreSQL/11/bin:\$PATH"
 - source ~/.bash_profile
 -

Input/Output using the psql:

\copy ...	perform SQL COPY with data stream to the client host
\echo [STRING]	write string to standard output
\i FILE	execute commands from file
\ir FILE	as \i, but relative to location of current script
\o [FILE]	send all query results to file or pipe
\qecho [STRING]	write string to query output stream (see \o)

You can find more commands on the following link.

<https://www.postgresql.org/docs/11/app-psql.html>