

# CSCI3170 Introduction to Database Systems

## Tutorial 6 – Introduction to MySQL



# WHAT IS MYSQL

# MySQL

- One of the most popular relational database systems in the world
- MySQL is
  - open-source
  - supports large-size databases
  - can run atop various systems and support multiple programming languages
- MySQL has slight syntax differences from SQLPlus
- You will use it in your final project

# **CONNECT TO MYSQL**

# Connect to MySQL (1)

- Connect to one of CSE Linux servers
  - in the CSE lab / via CSE VPN or gw server
  - e.g., *ssh yjwang22@linux9.cse.cuhk.edu.hk*

```
$ ssh yjwang22@linux9.cse.cuhk.edu.hk
yjwang22@linux9.cse.cuhk.edu.hk's password:
Last login: Fri Oct 28 00:14:51 2022 from vpngw2.cse.cuhk.edu.hk

-----
Resources limit applied:

- Max number of logins per user: 10
- Max number of processes per user: 1024
- Max resident memory per session: 64GB
-----

linux9:~> █
```

# Connect to MySQL (2)

- Connect to MySQL environment
  - Your account can be found in [https://docs.google.com/spreadsheets/d/1vPAXcAsAFO\\_DoLO6wxvCDcgxC9eejIJd3DSlzlqvOv0/edit#gid=0](https://docs.google.com/spreadsheets/d/1vPAXcAsAFO_DoLO6wxvCDcgxC9eejIJd3DSlzlqvOv0/edit#gid=0)

```
linux9:~> mysql --host=projgw --port=2633 -u Group0 -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 185
Server version: 5.5.56-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> █
```

# Connect to MySQL (3)

- Connect to MySQL environment
  - Password: *CSCI3170*
  - e.g., *mysql --host=projgw --port=2633 -u [account] -p*
  - No need to type 'csh' like in Oracle SQLPlus

```
linux9:~> mysql --host=projgw --port=2633 -u Group0 -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 185
Server version: 5.5.56-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> █
```

**USE EXAMPLES**



# Database

- CREATE DATABASE [name];

```
CREATE DATABASE test;
```

- DROP DATABASE [name];

```
DROP DATABASE test;
```

- USE [name];

```
USE test;
```

# Numerical Data Types

- *INT/INTEGER* 4Bytes
  - *TINYINT* 1Byte
  - *SMALLINT* 2Bytes
  - *MEDIUMINT* 3Bytes
  - *BIGINT* 8Bytes
- *FLOAT* 4Bytes
- *DOUBLE* 8Bytes
- ...

# Other Data Types

- *CHAR* 0-255 Bytes
  - Fixed length, more efficient
- *VARCHAR* 0-65535 Bytes
  - Variable length, less efficient but more flexible
- *DATE* 3Bytes (e.g., YYYY-MM-DD)
- *TIME* 3Bytes (e.g., HH:MM:SS)
- ...

**OTHERS**

# Late Submission Policy

- For Assignment 1, contact TA nafees at [nafees@link.cuhk.edu.hk](mailto:nafees@link.cuhk.edu.hk)

## Late Submission Policy

Posted on: Friday, October 28, 2022 1:59:50 PM HKT

Dear students,

For your following assignment 2, assignment 3 and project, you can at most delay your submission within 3 days. In this case, the mark will be deducted by 30%.

For the short assignments, no late submission is accepted.

Best regards,

TA

# In the end

- Please check if you can successfully connect to **SQLPlus** and **MySQL** platforms, to better prepare for your following tasks.
- How to connecting to SQLPlus is shown in *tutorial-4* slide.

For tutorial questions, please contact [yjwang22@cse.cuhk.edu.hk](mailto:yjwang22@cse.cuhk.edu.hk)

**THANKS**