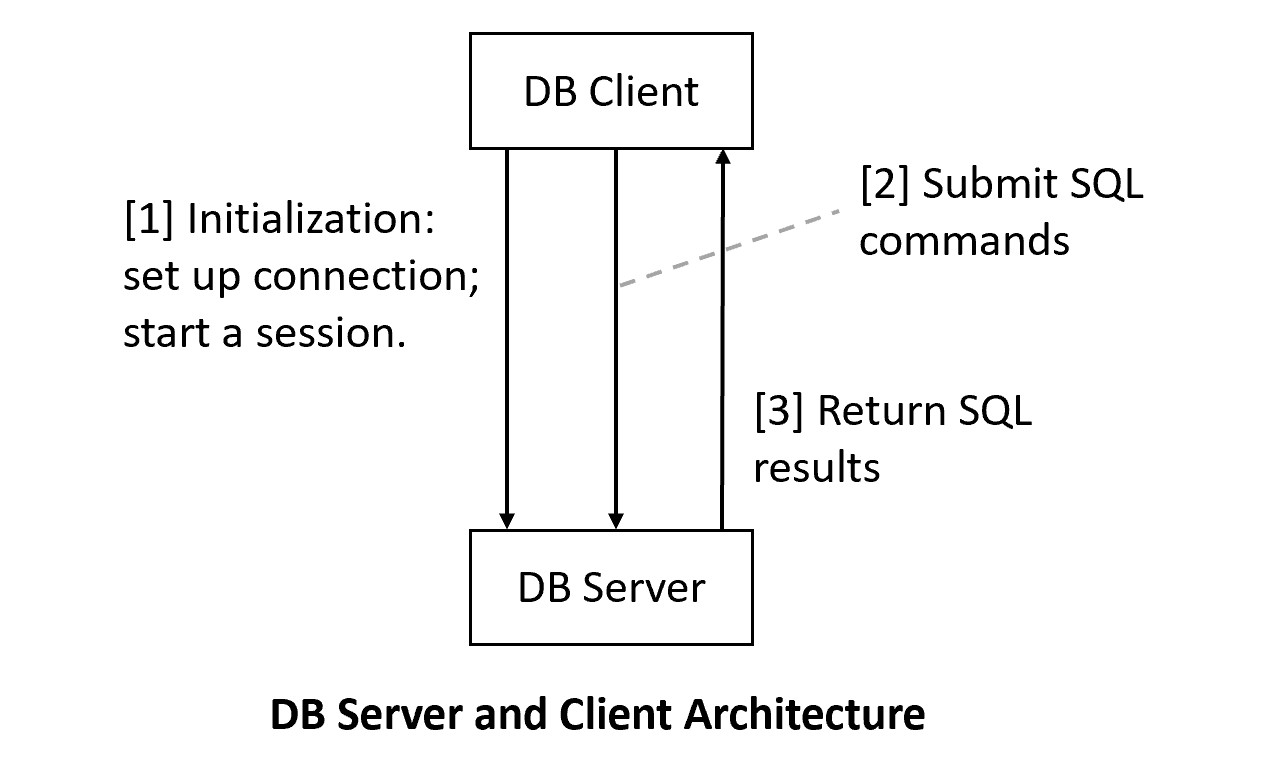
**CSCI 4333.2**

8/21/2024

**3. MySQL**

* The standard query language for RDBMS is Structured Query Language (SQL).
* We use MySQL (or MariaDB) in this class.

DBMS mostly uses a client-server architecture.



**3.1 MySQL Server Setup**

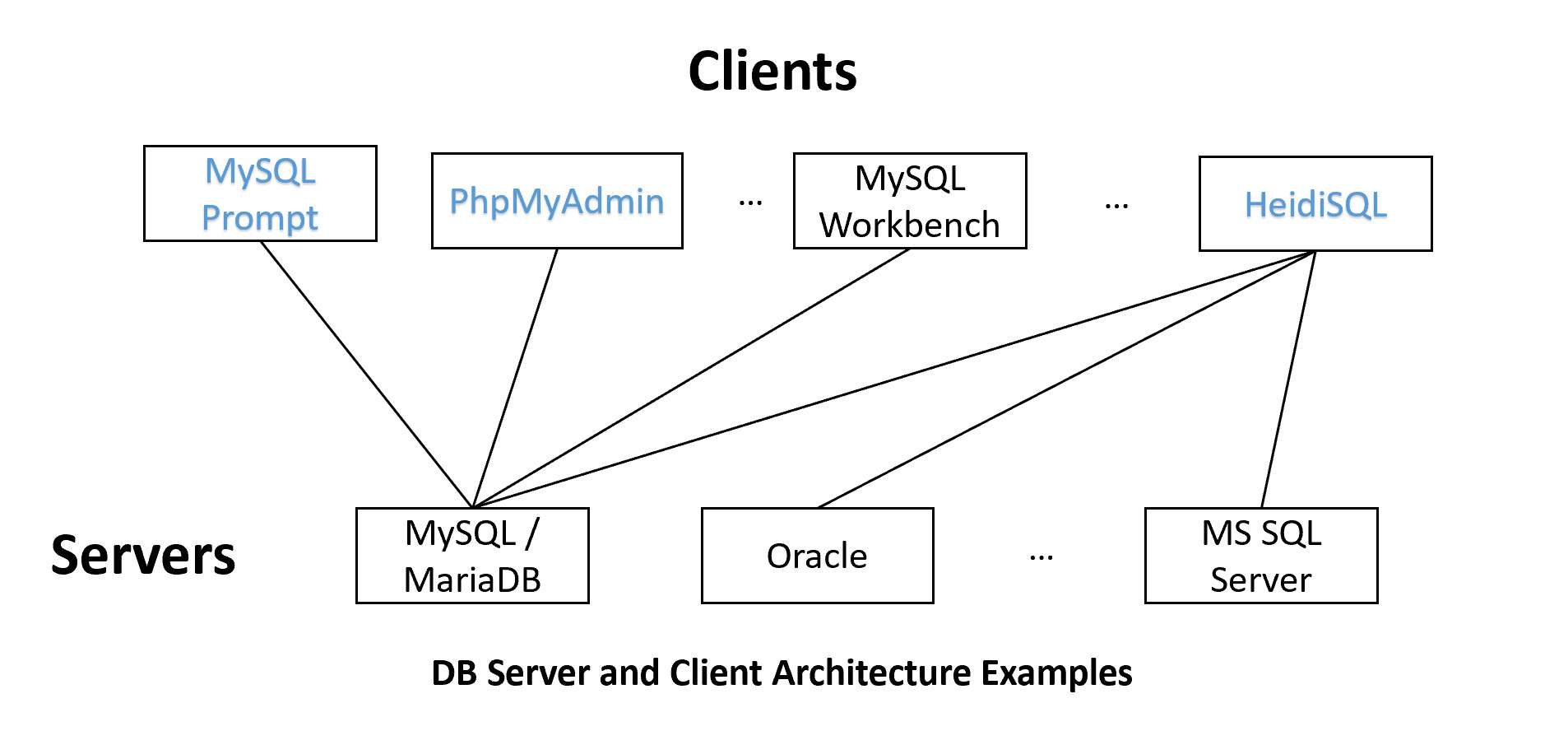
We will use MariaDB that is a part of XAMPP. Do not recommend installing standalone MySQL.

[1] Install XAMPP, which contains many server software configured to work together for development purposes. For XAMPP, we will use MySQL/Maria DB and Apache (Web server).

1. Recommended to install XAMPP in the*top* level: c:\xampp (likely the default).
2. Set up development accounts immediately using *phpMyAdmin* after installation.
3. Change the root password (optional but recommended): a secure step that requires tinkering.
4. To ensure that PHPMyAdmin will work on a new admin account (optional):
   1. Use PHPMyAdmin to create a new admin account, e.g., "frog\_ad", with the password "a\_new\_prince" for both hostname '%' and 'localhost'
   2. PhpMyAdmin uses the default root account (with no initial password) via localhost.
   3. Thus, you will need to supply the new username and password to start up PhpMyAdmin by editing the file c:\xampp\phpMyAdmin\config.inc.php, search change the line to, for example:
      1. $cfg['Servers'][$i]['user'] = 'frog\_ad';
      2. $cfg['Servers'][$i]['password'] = 'a\_new\_prince';

**3.2 MySQL Clients Setup:**

It is common to use multiple clients to connect to a backend database server. In this course, we will use three clients in our classes. You may use your own favorite clients (e.g., MySQL Workbench). However, I may not be as helpful in these clients.



XAMPP?/Maria

MYsqL prompt: C:\xampp\mysql\bin\mysql.exe

A screenshot of a computer

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[1] MySQL Command-Line Prompt: will be used in this class.

1. Come with (1) XAMPP/MariaDB or (2) MySQL 8.x. (Note that the two versions of mysql prompt are somewhat different.)
   1. MariaDB mysql: <https://mariadb.com/kb/en/mysql-command-line-client/>
   2. MySQL 8.x mysql: <https://dev.mysql.com/doc/refman/8.0/en/mysql.html>
2. A command line text-based MySQL-specific client.
3. You may set the PATH variable so you can call mysql prompt anywhere, such as by adding "c:\xampp\mysql\bin" in the PATH system environment variable.

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***Example:***

**mysql –h *host* -u *user* -p**

or

**mysql –h *host* -u *user* -p -P port\_number**

[2] PhPMyAdmin

1. A Web-based GUI client focused on DB administration.
2. After starting both MySQL and Apache in XAMPP, go to localhost in your browser.
3. MySQL specific.

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Create s2 account:

CREATE [USER](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user) 's2'@'localhost' IDENTIFIED VIA mysql\_native\_password USING '\*\*\*';GRANT ALL PRIVILEGES ON \*.\* TO 's2'@'localhost' REQUIRE NONE WITH GRANT OPTION MAX\_QUERIES\_PER\_HOUR 0 MAX\_CONNECTIONS\_PER\_HOUR 0 MAX\_UPDATES\_PER\_HOUR 0 MAX\_USER\_CONNECTIONS 0;

[3] HeidiSQL: will be used in this class

1. A general Windows GUI SQL client

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[4] MySQL Workbench:

1. A GUI MySQL client that comes with MySQL 8.x (but not XAMPP)

source createtoyu.sql

to create toyu.