

CS157A: Introduction to Database Management Systems

MySQL
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Installation

- Download MySQL Community Server from <http://dev.mysql.com/downloads/mysql/>
- Install MySQL on your system following the installation instructions from the MySQL 5.* Manual.
- Set the path to mysql.exe in your system so that you can use the command mysql anywhere in your system.

Connecting to and disconnecting from the Server

```
shell>mysql -h localhost -u username -p
Enter password: ****
mysql>QUIT
```

- `localhost` is a typical host name being used for MySQL.
- `username` and `password` are what you entered during the installation of MySQL.
- `mysql` prompt tells you that mysql is ready to process your command.
- `QUIT` disconnects you from the server.

Entering Queries

- A command normally consists of an SQL statement followed by a semicolon.
- A command need not be given all on a single line. MySQL uses ; to determine the end of statement.
- mysql displays query output in tabular form (rows and columns).
- Keywords may be entered in any letter case
- \c cancels the execution of statement.

Example

```
mysql> SELECT USER(), CURRENT_DATE;
```

```
+-----+-----+  
| USER() | CURRENT_DATE |  
+-----+-----+  
| root@localhost | 2013-07-16 |  
+-----+-----+
```

```
in row in set (0.00 sec)
```

Creating and Using a Database

- Create database
- Create a table
- Load data into the table
- Retrieve data from the table
- Use multiple tables

Creating and Selecting a Database

- To create

```
mysql> CREATE DATABASE CS;
```

- To list databases

```
mysql> SHOW DATABASES;
```

- To select it for use (no semicolon)

```
mysql> USE CS;
```

- To connect to the server and select an existing database `cs`

```
shell> mysql -h localhost -u user -p cs
```

```
Enter password: *****
```

To CREATE TABLE

- First, select a database using `USE` command.
- Use a `CREATE TABLE` statement

```
DROP TABLE IF EXISTS FACULTY;  
CREATE TABLE FACULTY  
(id INT,  
  name VARCHAR(30) ,  
  age INT,  
  PRIMARY KEY(id) );
```

- To list existing tables in the current database
`SHOW TABLES;`
- To verify that your table was created the way you expected
`DESCRIBE FACULTY;`

Loading Data into a Table

- To load faculty.txt into the FACULTY table

Note: faculty.txt contains one record per line, with values separated by a tab

```
mysql> LOAD DATA LOCAL INFILE 'c:\\SQL\\faculty.txt' INTO  
TABLE FACULTY;
```

- To add new records one at a time

```
mysql> INSERT INTO FACULTY  
->VALUES (123,'John Koffman',45);
```

- To Retrieve Information from a Table
Use various SQL commands you learned to manipulate data.
- To drop a table from a database
`mysql> DROP TABLE databasename.tablename;`