***To start puTTY to access coleman/sandbox:***

Start puTTY

Host Name: linuxsandbox.coleman.edu

Login as: pm84270

c4891a25

***Or access a localserver:***

<http://localhost>, Database username: , Database password:, Database name:

***To start mySQL:***

$ mysql -u pm84270 -p c4891a25

mysql> use pm84270

mysql> SHOW TABLES;

- - - - - - - - - - - - - - - - - -

***To view a table’s columns:***

mysql> SHOW COLUMNS FROM Customer;

mysql> SHOW COLUMNS FROM Product;

***To view all the rows of a table:***

mysql> SELECT \* FROM Customer;

mysql> SELECT \* FROM Product;

***To view specific rows of a table:***

mysql> SELECT \* FROM Product WHERE item = ‘book’;

***To create a table:***

mysql> CREATE TABLE IF NOT EXISTS DB\_Artist (artist\_id INT (5) NOT NULL,artist\_name VARCHAR (128) NOT NULL,PRIMARY KEY(artist\_id));

mysql> CREATE TABLE DB\_Student (

-> student\_id INT (10) NOT NULL AUTO\_INCREMENT,

-> first\_name VARCHAR (15) NOT NULL,

-> last\_name VARCHAR (15) NOT NULL,

-> DOB DATE NOT NULL,

-> SSN INT (9) NOT NULL,

-> PRIMARY KEY(student\_id));

***To edit a table’s columns, and column’s data types:***

mysql> ALTER TABLE artist CHANGE artist\_name artist\_name CHAR(25);

***To add rows:***

mysql> INSERT INTO Customer (

-> customer\_id,customer\_name,city\_name,state\_abbr,zipcode)

-> VALUES

-> (1,'John Smith','San Diego','CA','22222'),

-> (2,'Mary Joseph','Chicago','IL','99999'),

-> (3,'Daniel Henry','Phoenix','AZ','44444');

***To edit a row:***

mysql> UPDATE Customer SET

-> first\_name = 'Jonathan',

-> last\_name = 'Jones'

-> WHERE customer\_id = 1;

***To edit specific rows:***

mysql> UPDATE Customer SET zipcode = ‘22222’ WHERE last\_name LIKE ‘%y’;

***To delete a row:***

mysql> SELECT DELETE FROM Customer WHERE id = 2;

***To delete a table:***

mysql> SELECT DELETE Product;

***To create a joined table:***

mysql> CREATE TABLE Product (   
 -> product\_ID SMALLINT(5) NOT NULL AUTO\_INCREMENT,   
 -> item CHAR(32),   
 -> prices DOUBLE(6,2),   
 -> customer\_id SMALLINT(5),  
 -> PRIMARY KEY (product\_id),   
 -> KEY Customer);

***To add joined rows:***

mysql> INSERT INTO Product

-> (item, prices, customer\_id)

-> VALUES

-> ('Laptop', 550, 1),

-> ('Book', 45.95, 2),

-> ('Binder', 4.99, 3);

***To view all rows of joined tables:***

mysql> SELECT \* FROM Customer INNER JOIN Product USING (customer\_id) ORDER BY last\_name DESC;

*(default=Ascending)*

***To create stored procedures:***

***(See file: Michael Fetick Lesson 14)***

Working with MySQL Monitor (puTTY):

FIRST, LOOK AT THE DATA:

mysql> SELECT \* FROM customer;

CREATE THE PROCEDURE:

mysql> DELIMITER //

mysql> CREATE PROCEDURE sp\_UpdateCustName2

-> (target\_id int,

-> lastName varchar(15),

-> firstName varchar(15))

-> BEGIN

-> UPDATE customer

-> SET last = lastName,

-> first = firstName

-> WHERE cust\_id = target\_id;

-> END//

Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;

mysql>

CALL THE PROCEDURE WITH PARAMETERS:

mysql> call sp\_UpdateCustName(4,'George','Washington');

Query OK, 1 row affected (0.00 sec)

LOOK AT THE CHANGE TO THE DATA:

mysql> SELECT \* FROM customer;

ANALYSE THE TABLE:

mysql> SELECT \* FROM customer PROCEDURE ANALYSE(10, 2000);

LOOK AT THE LIST OF PROCEDURES:

mysql> SHOW PROCEDURE STATUS;

LIST THE SPECIFIC PROCEDURE:

mysql> SHOW PROCEDURE STATUS WHERE Name='sp\_UpdateCustName';

DROP THE SPECIFIC PROCEDURE:

mysql> DROP PROCEDURE sp\_UpdateCustName;

Query OK, 0 rows affected (0.00 sec)

mysql> HELP CONTENTS

You asked for help about help category: "Contents"

For more information, type 'help <item>', where <item> is one of the following

categories:

Account Management

Administration

Compound Statements

Data Definition

Data Manipulation

Data Types

Functions

Functions and Modifiers for Use with GROUP BY

Geographic Features

Language Structure

Table Maintenance

Transactions

User-Defined Functions

Utility

mysql> HELP FUNCTIONS

You asked for help about help category: "Functions"

For more information, type 'help <item>', where <item> is one of the following

topics:

PROCEDURE ANALYSE

categories:

Bit Functions

Comparison operators

Control flow functions

Date and Time Functions

Encryption Functions

Information Functions

Logical operators

Miscellaneous Functions

Numeric Functions

String Functions

mysql> HELP Information Functions

You asked for help about help category: "Information Functions"

For more information, type 'help <item>', where <item> is one of the following

topics:

BENCHMARK

CHARSET

COERCIBILITY

COLLATION

CONNECTION\_ID

CURRENT\_USER

DATABASE

FOUND\_ROWS

LAST\_INSERT\_ID

ROW\_COUNT

SCHEMA

SESSION\_USER

SYSTEM\_USER

USER

VERSION

mysql>

mysql> HELP PROCEDURE ANALYSE

Name: 'PROCEDURE ANALYSE'

Description:

Syntax:

analyse([max\_elements[,max\_memory]])

This procedure is defined in the sql/sql\_analyse.cc file. It examines

the result from a query and returns an analysis of the results that

suggests optimal data types for each column. To obtain this analysis,

append PROCEDURE ANALYSE to the end of a SELECT statement:

SELECT ... FROM ... WHERE ... PROCEDURE ANALYSE([max\_elements,[max\_memory]])

For example:

SELECT col1, col2 FROM table1 PROCEDURE ANALYSE(10, 2000);

The results show some statistics for the values returned by the query,

and propose an optimal data type for the columns. This can be helpful

for checking your existing tables, or after importing new data. You may

need to try different settings for the arguments so that PROCEDURE

ANALYSE() does not suggest the ENUM data type when it is not

appropriate.

The arguments are optional and are used as follows:

o max\_elements (default 256) is the maximum number of distinct values

that analyse notices per column. This is used by analyse to check

whether the optimal data type should be of type ENUM; if there are

more than max\_elements distinct values, then ENUM is not a suggested

type.

o max\_memory (default 8192) is the maximum amount of memory that

analyse should allocate per column while trying to find all distinct

values.

URL: http://dev.mysql.com/doc/refman/5.0/en/procedure-analyse.html

mysql> SELECT \* FROM customer PROCEDURE ANALYSE(10, 2000);

For developer information, including the MySQL Reference Manual, visit:

http://dev.mysql.com/

To buy MySQL Enterprise support, training, or other products, visit:

https://shop.mysql.com/

List of all MySQL commands:

Note that all text commands must be first on line and end with ';'

? (\?) Synonym for `help'.

clear (\c) Clear the current input statement.

connect (\r) Reconnect to the server. Optional arguments are db and host.

delimiter (\d) Set statement delimiter.

edit (\e) Edit command with $EDITOR.

ego (\G) Send command to mysql server, display result vertically.

exit (\q) Exit mysql. Same as quit.

go (\g) Send command to mysql server.

help (\h) Display this help.

nopager (\n) Disable pager, print to stdout.

notee (\t) Don't write into outfile.

pager (\P) Set PAGER [to\_pager]. Print the query results via PAGER.

print (\p) Print current command.

prompt (\R) Change your mysql prompt.

quit (\q) Quit mysql.

rehash (\#) Rebuild completion hash.

source (\.) Execute an SQL script file. Takes a file name as an argument.

status (\s) Get status information from the server.

system (\!) Execute a system shell command.

tee (\T) Set outfile [to\_outfile]. Append everything into given outfile.

use (\u) Use another database. Takes database name as argument.

charset (\C) Switch to another charset. Might be needed for processing binlog with multi-byte charsets.

warnings (\W) Show warnings after every statement.

nowarning (\w) Don't show warnings after every statement.

For server side help, type 'help contents'

mysql> SHOW DATABASES;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| pm84270 |

+--------------------+

2 rows in set (0.01 sec)

mysql> use pm84270

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| DB\_Customer |

| DB\_Employee |

| artist |

+-------------------+

3 rows in set (0.00 sec)

-> \help CREATE TABLE

Name: 'CREATE TABLE'

Description:

Syntax:

CREATE [TEMPORARY] TABLE [IF NOT EXISTS] tbl\_name

(create\_definition,...)

[table\_option] ...

Or:

CREATE [TEMPORARY] TABLE [IF NOT EXISTS] tbl\_name

[(create\_definition,...)]

[table\_option] ...

select\_statement

Or:

CREATE [TEMPORARY] TABLE [IF NOT EXISTS] tbl\_name

{ LIKE old\_tbl\_name | (LIKE old\_tbl\_name) }

create\_definition:

col\_name column\_definition

| [CONSTRAINT [symbol]] PRIMARY KEY [index\_type] (index\_col\_name,...)

[index\_type]

| {INDEX|KEY} [index\_name] [index\_type] (index\_col\_name,...)

[index\_type]

| [CONSTRAINT [symbol]] UNIQUE [INDEX|KEY]

[index\_name] [index\_type] (index\_col\_name,...)

[index\_type]

| {FULLTEXT|SPATIAL} [INDEX|KEY] [index\_name] (index\_col\_name,...)

[index\_type]

| [CONSTRAINT [symbol]] FOREIGN KEY

[index\_name] (index\_col\_name,...) reference\_definition

| CHECK (expr)

column\_definition:

data\_type [NOT NULL | NULL] [DEFAULT default\_value]

[AUTO\_INCREMENT] [UNIQUE [KEY] | [PRIMARY] KEY]

[COMMENT 'string'] [reference\_definition]

data\_type:

BIT[(length)]

| TINYINT[(length)] [UNSIGNED] [ZEROFILL]

| SMALLINT[(length)] [UNSIGNED] [ZEROFILL]

| MEDIUMINT[(length)] [UNSIGNED] [ZEROFILL]

| INT[(length)] [UNSIGNED] [ZEROFILL]

| INTEGER[(length)] [UNSIGNED] [ZEROFILL]

| BIGINT[(length)] [UNSIGNED] [ZEROFILL]

| REAL[(length,decimals)] [UNSIGNED] [ZEROFILL]

| DOUBLE[(length,decimals)] [UNSIGNED] [ZEROFILL]

| FLOAT[(length,decimals)] [UNSIGNED] [ZEROFILL]

| DECIMAL[(length[,decimals])] [UNSIGNED] [ZEROFILL]

| NUMERIC[(length[,decimals])] [UNSIGNED] [ZEROFILL]

| DATE

| TIME

| TIMESTAMP

| DATETIME

| YEAR

| CHAR[(length)]

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| VARCHAR(length)

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| BINARY[(length)]

| VARBINARY(length)

| TINYBLOB

| BLOB

| MEDIUMBLOB

| LONGBLOB

| TINYTEXT [BINARY]

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| TEXT [BINARY]

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| MEDIUMTEXT [BINARY]

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| LONGTEXT [BINARY]

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| ENUM(value1,value2,value3,...)

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| SET(value1,value2,value3,...)

[CHARACTER SET charset\_name] [COLLATE collation\_name]

| spatial\_type

index\_col\_name:

col\_name [(length)] [ASC | DESC]

index\_type:

USING {BTREE | HASH | RTREE}

reference\_definition:

REFERENCES tbl\_name (index\_col\_name,...)

[MATCH FULL | MATCH PARTIAL | MATCH SIMPLE]

[ON DELETE reference\_option]

[ON UPDATE reference\_option]

reference\_option:

RESTRICT | CASCADE | SET NULL | NO ACTION

table\_option:

{ENGINE|TYPE} [=] engine\_name

| AUTO\_INCREMENT [=] value

| AVG\_ROW\_LENGTH [=] value

| [DEFAULT] CHARACTER SET [=] charset\_name

| CHECKSUM [=] {0 | 1}

| [DEFAULT] COLLATE [=] collation\_name

| COMMENT [=] 'string'

| CONNECTION [=] 'connect\_string'

| DATA DIRECTORY [=] 'absolute path to directory'

| DELAY\_KEY\_WRITE [=] {0 | 1}

| INDEX DIRECTORY [=] 'absolute path to directory'

| INSERT\_METHOD [=] { NO | FIRST | LAST }

| MAX\_ROWS [=] value

| MIN\_ROWS [=] value

| PACK\_KEYS [=] {0 | 1 | DEFAULT}

| PASSWORD [=] 'string'

| ROW\_FORMAT [=] {DEFAULT|DYNAMIC|FIXED|COMPRESSED|REDUNDANT|COMPACT}

| UNION [=] (tbl\_name[,tbl\_name]...)

select\_statement:

[IGNORE | REPLACE] [AS] SELECT ... (Some legal select statement)

CREATE TABLE creates a table with the given name. You must have the

CREATE privilege for the table.

Rules for allowable table names are given in

http://dev.mysql.com/doc/refman/5.0/en/identifiers.html. By default,

the table is created in the default database. An error occurs if the

table exists, if there is no default database, or if the database does

not exist.

URL: http://dev.mysql.com/doc/refman/5.0/en/create-table.html

mysql> CREATE TABLE DB\_Student (

-> student\_id INT (10) NOT NULL AUTO\_INCREMENT,

-> first\_name VARCHAR (15) NOT NULL,

-> last\_name VARCHAR (15) NOT NULL,

-> DOB DATE NOT NULL,

-> SSN INT (9) NOT NULL,

-> PRIMARY KEY(student\_id)

-> );

Query OK, 0 rows affected (0.00 sec)

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| artist |

+-------------------+

4 rows in set (0.00 sec)

mysql>

mysql> CREATE TABLE IF NOT EXISTS DB\_Artist (artist\_id INT (5) NOT NULL,artist\_name VARCHAR (128) NOT NULL,PRIMARY KEY(artist\_id));

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql>

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| DB\_Artist |

| DB\_Class |

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| artist |

+-------------------+

6 rows in set (0.00 sec)

mysql>

mysql> SHOW COLUMNS FROM artist;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| artist\_id | smallint(5) | NO | PRI | NULL | |

| artist\_name | char(15) | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql>

mysql> ALTER TABLE artist CHANGE artist\_name artist\_name CHAR(25);

Query OK, 0 rows affected (0.01 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql>

mysql> SHOW COLUMNS FROM artist;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| artist\_id | smallint(5) | NO | PRI | NULL | |

| artist\_name | char(25) | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql>

mysql> ALTER TABLE artist CHANGE artist\_name artist\_NEWname CHAR(29);

Query OK, 0 rows affected (0.00 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql>

mysql> SHOW COLUMNS FROM artist;

+----------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------+------+-----+---------+-------+

| artist\_id | smallint(5) | NO | PRI | NULL | |

| artist\_NEWname | char(29) | YES | | NULL | |

+----------------+-------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql>

8/21/2013

login as: pm84270

Access to this system is only allowed if you are an authorized user. Accessing this system without authorization or in excess of your privilege level is an actionable offense. Anyone using this system consents to these terms.

pm84270@linuxsandbox.coleman.edu's password:

Last login: Mon Aug 19 08:40:16 2013 from 172.16.25.122

[pm84270@linuxsandbox ~]$ mysql -u pm84270 -p

Enter password:

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 3753

Server version: 5.0.95 Source distribution

Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

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

mysql> use pm84270

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| DB\_Artist |

| DB\_Class |

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| artist |

+-------------------+

6 rows in set (0.00 sec)

mysql> CREATE TABLE IF NOT EXISTS Customer (customer\_id INT (5) NOT NULL,customer\_name VARCHAR (32) NOT NULL,city\_name VARCHAR (15),state\_abbr VARCHAR (2),zipcode VARCHAR (5),PRIMARY KEY(customer\_id));

Query OK, 0 rows affected (0.11 sec)

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| Customer |

| DB\_Artist |

| DB\_Class |

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| artist |

+-------------------+

7 rows in set (0.00 sec)

mysql> SHOW COLUMNS FROM Customer;

+---------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------+-------------+------+-----+---------+-------+

| customer\_id | int(5) | NO | PRI | NULL | |

| customer\_name | varchar(32) | NO | | NULL | |

| city\_name | varchar(15) | YES | | NULL | |

| state\_abbr | varchar(2) | YES | | NULL | |

| zipcode | varchar(5) | YES | | NULL | |

+---------------+-------------+------+-----+---------+-------+

5 rows in set (0.00 sec)

mysql> INSERT INTO Customer (customer\_id,customer\_name,city\_name,state\_abbr,zipcode) VALUES (1,'John Smith','San Diego','CA','22222'),(2,'Mary Joseph','Chicago','IL','99999'),(3,'Daniel Henry','Phoenix','AZ','44444');

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM Customer;

+-------------+---------------+-----------+------------+---------+

| customer\_id | customer\_name | city\_name | state\_abbr | zipcode |

+-------------+---------------+-----------+------------+---------+

| 1 | John Smith | San Diego | CA | 22222 |

| 2 | Mary Joseph | Chicago | IL | 99999 |

| 3 | Daniel Henry | Phoenix | AZ | 44444 |

+-------------+---------------+-----------+------------+---------+

3 rows in set (0.00 sec)

mysql> UPDATE Customer SET

-> first\_name = 'Jonathan',

-> last\_name = 'Jones'

-> WHERE customer\_id = 1

-> ;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT \* FROM Customer;

+-------------+-----------+------------+---------+------------+-----------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+-----------+------------+---------+------------+-----------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry |

+-------------+-----------+------------+---------+------------+-----------+

3 rows in set (0.00 sec)

mysql> INSERT INTO Customer (customer\_id,first\_name,last\_name,city\_name,state\_abbr,zipcode) VALUES ( 4,'Paul','Gary','New York','NY', 87723);

Query OK, 1 row affected (0.00 sec)

mysql> SELECT \* FROM Customer;

+-------------+-----------+------------+---------+------------+-----------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+-----------+------------+---------+------------+-----------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry |

| 4 | New York | NY | 87723 | Paul | Gary |

+-------------+-----------+------------+---------+------------+-----------+

4 rows in set (0.00 sec)

mysql> DELETE FROM Customer WHERE customer\_id = 4;

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM Customer;

+-------------+-----------+------------+---------+------------+-----------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+-----------+------------+---------+------------+-----------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry |

+-------------+-----------+------------+---------+------------+-----------+

3 rows in set (0.00 sec)

mysql> INSERT INTO Customer (customer\_id,first\_name,last\_name,city\_name,state\_abbr,zipcode) VALUES ( 4,'Paul','Gary','New York','NY', 87723);

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM Customer;

+-------------+-----------+------------+---------+------------+-----------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+-----------+------------+---------+------------+-----------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry |

| 4 | New York | NY | 87723 | Paul | Gary |

+-------------+-----------+------------+---------+------------+-----------+

4 rows in set (0.00 sec)

mysql> CREATE TABLE Product ( product\_ID SMALLINT(5) NOT NULL AUTO\_INCREMENT, item CHAR(32), prices DOUBLE(6,2), customer\_id SMALLINT(5),PRIMARY KEY (product\_id), KEY Customer (customer\_id));

Query OK, 0 rows affected (0.00 sec)

mysql> SELECT \* FROM Customer;

+-------------+-----------+------------+---------+------------+-----------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+-----------+------------+---------+------------+-----------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry |

| 4 | New York | NY | 87723 | Paul | Gary |

+-------------+-----------+------------+---------+------------+-----------+

4 rows in set (0.00 sec)

mysql> SELECT \* FROM Product;

Empty set (0.00 sec)

mysql> SHOW COLUMNS FROM Product;

+-------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+----------------+

| product\_ID | smallint(5) | NO | PRI | NULL | auto\_increment |

| item | char(32) | YES | | NULL | |

| prices | double(6,2) | YES | | NULL | |

| customer\_id | smallint(5) | YES | MUL | NULL | |

+-------------+-------------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> INSERT INTO Product (product\_id,item,prices,customer\_id) VALUES (1,'book','2500',1); Query OK, 1 row affected (0.00 sec)

mysql> SELECT \* FROM Product;

+------------+------+---------+-------------+

| product\_ID | item | prices | customer\_id |

+------------+------+---------+-------------+

| 1 | book | 2500.00 | 1 |

+------------+------+---------+-------------+

1 row in set (0.00 sec)

mysql> INSERT INTO Product (product\_id,item,prices,customer\_id) VALUES (2,'book','25.73',3);

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Product (product\_id,item,prices,customer\_id) VALUES (3,'cd','15.32',2);

Query OK, 1 row affected (0.01 sec)

mysql> SELECT \* FROM Product;

+------------+------+---------+-------------+

| product\_ID | item | prices | customer\_id |

+------------+------+---------+-------------+

| 1 | book | 2500.00 | 1 |

| 2 | book | 25.73 | 3 |

| 3 | cd | 15.32 | 2 |

+------------+------+---------+-------------+

3 rows in set (0.01 sec)

mysql> SELECT \* FROM Product INNER JOIN Customer USING (customer\_id);

+-------------+------------+------+---------+-----------+------------+---------+------------+-----------+

| customer\_id | product\_ID | item | prices | city\_name | state\_abbr | zipcode | first\_name | last\_name |

+-------------+------------+------+---------+-----------+------------+---------+------------+-----------+

| 1 | 1 | book | 2500.00 | San Diego | CA | 22222 | Jonathan | Jones |

| 2 | 3 | cd | 15.32 | Chicago | IL | 99999 | Mary | Joseph |

| 3 | 2 | book | 25.73 | Phoenix | AZ | 44444 | Daniel | Henry |

+-------------+------------+------+---------+-----------+------------+---------+------------+-----------+

3 rows in set (0.00 sec)

mysql> SELECT \* FROM Customer INNER JOIN Product USING (customer\_id);

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name | product\_ID | item | prices |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| 1 | San Diego | CA | 22222 | Jonathan | Jones | 1 | book | 2500.00 |

| 2 | Chicago | IL | 99999 | Mary | Joseph | 3 | cd | 15.32 |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry | 2 | book | 25.73 |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

3 rows in set (0.00 sec)

mysql> SELECT \* FROM Customer INNER JOIN Product USING (customer\_id) ORDER BY last\_name, item;

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name | product\_ID | item | prices |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| 3 | Phoenix | AZ | 44444 | Daniel | Henry | 2 | book | 25.73 |

| 1 | San Diego | CA | 22222 | Jonathan | Jones | 1 | book | 2500.00 |

| 2 | Chicago | IL | 99999 | Mary | Joseph | 3 | cd | 15.32 |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

3 rows in set (0.00 sec)

mysql> SELECT \* FROM Customer INNER JOIN Product USING (customer\_id) ORDER BY last\_name DESC, item;

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| customer\_id | city\_name | state\_abbr | zipcode | first\_name | last\_name | product\_ID | item | prices |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

| 2 | Chicago | IL | 99999 | Mary | Joseph | 3 | cd | 15.32 |

| 1 | San Diego | CA | 22222 | Jonathan | Jones | 1 | book | 2500.00 |

| 3 | Phoenix | AZ | 44444 | Daniel | Henry | 2 | book | 25.73 |

+-------------+-----------+------------+---------+------------+-----------+------------+------+---------+

3 rows in set (0.00 sec)

mysql>

Week 4 – Class 8-26-2013 (Read chapters 7 and 8)

- Read chapters 7 and 8

**-** Presentations to read:

* km-week04-COM230 – SQL and Database Design.ppt (COM230-KM)
* Crow’s Foot Notation.ppt (JAN2012)
* MySQL Regular Expressions.ppt (Charlie Oct 2010/Powerpoints)
* VIEWS in SQL.ppt (Charlie Oct 2010/Powerpoints)
* Database.ppt (Charlie Oct 2010/Powerpoints)
* SELECT-08-26-2013 (COM230-KM)
* nf3\_tutorial.pdf (COM230-KM)
* MySQL Regular Expressions.ppt (Charlie Oct 2010/Powerpoints)

Chapter 7: Advanced Queries

**Aliases**

* Write Shorter queries
* Express your queries more quickly
* Use one table in two or more ways in a single query
* Access data more easily from programs
* Use special types of nested queries.

**Column Aliases**

mysql> SELECT CONCAT(artist\_name, “ recorded “, album\_name) AS recording

-> FROM artist INNER JOIN album USING (artist\_id)

-> ORDER BY recording;

Restrictions: Can’t use them in the WHERE clause, or in the USING or ON clauses.

The AS keyword is optional but is recommended.

**Table Aliases**

mysql> SELECT ar.artist\_id, al.album\_name, ar.artist\_name)

-> FROM album AS al INNER JOIN artist AS ar

-> USING (artist\_id) WHERE al.album\_name = “brotherhood”

No restrictions on using them in the WHERE clause.

The AS keyword is optional but is recommended.

Example: What identifies two or more artist that have released an album of the same name   
(for two different albums, use two different aliases):

mysql> SELECT a1.artist\_id, a2.album\_id

-> FROM album AS a1, album AS a2

-> WHERE a1.artist\_id != a2.artist\_id;

Week 4 – Class 8-28-2013 (Read chapters 7 and 8)

- Presentations to read:

* ConnectingToTheDatabase(b).ppt (BrianAtkinsMarch-May2012\April 112012 class #12)

mysql> SELECT \* FROM Title;

+----------+----------------------------------+--------------+

| title\_id | title | retail\_price |

+----------+----------------------------------+--------------+

| 1 | The C Programming Language | 39.95 |

| 2 | The Sword of Shannara Trilogy | 24.95 |

| 3 | The Legent of the Seventh Virgin | 15.98 |

| 4 | Thyme of Death | 6.95 |

| 5 | English Breakfast Murder | 6.95 |

| 6 | The Jasmine Moon Murder | 16.95 |

| 7 | The Last Camel Died at Noon | 6.75 |

| 8 | The Cleansing | 32.50 |

| 9 | The Ivy Tree | 6.99 |

+----------+----------------------------------+--------------+

9 rows in set (0.00 sec)

mysql> SELECT title, name AS "Publisher Name\* FROM Title, Publisher WHERE title.pub\_id = publisher.pub\_id;

">

"> SELECT title, name AS "Publisher Name" FROM Title, Publisher WHERE title.pub\_id = publisher.pub\_id;

"> ;

"> q

"> \q

"> clear

"> /c

"> \c

"> Ctrl-C -- exit!

Aborted

[pm84270@linuxsandbox ~]$ mysql -u pm84270 -pc4891a25

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 6816

Server version: 5.0.95 Source distribution

Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

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

mysql> use pm84270

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| COURSE |

| COURSE\_2 |

| DB\_Artist |

| DB\_Class |

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| Inventory |

| Items |

| Order\_Detail |

| Product |

| STUDENT |

| Title |

| artist |

| old\_Customer |

+-------------------+

15 rows in set (0.00 sec)

mysql> CREATE TABLE IF NOT EXISTS Publisher (pub\_id INT (5) NOT NULL auto\_increment, name VARCHAR (128) NOT NULL,PRIMARY KEY(pub\_id));

Query OK, 0 rows affected (0.00 sec)

mysql> ALTER Title ADD pub\_id INT(5);

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'Title ADD pub\_id INT(5)' at line 1

mysql> ALTER TABLE Title ADD pub\_id INT(5);

Query OK, 9 rows affected (0.01 sec)

Records: 9 Duplicates: 0 Warnings: 0

mysql> SHOW TABLES;

+-------------------+

| Tables\_in\_pm84270 |

+-------------------+

| COURSE |

| COURSE\_2 |

| DB\_Artist |

| DB\_Class |

| DB\_Customer |

| DB\_Employee |

| DB\_Student |

| Inventory |

| Items |

| Order\_Detail |

| Product |

| Publisher |

| STUDENT |

| Title |

| artist |

| old\_Customer |

+-------------------+

16 rows in set (0.00 sec)

mysql> SHOW COLUMNS \* FROM Publisher;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that sher' at line 1

mysql> SHOW COLUMNS FROM Publisher;

+--------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+--------+--------------+------+-----+---------+----------------+

| pub\_id | int(5) | NO | PRI | NULL | auto\_increment |

| name | varchar(128) | NO | | NULL | |

+--------+--------------+------+-----+---------+----------------+

2 rows in set (0.00 sec)

mysql> SHOW COLUMNS FROM Title;

+--------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+--------------+-------------+------+-----+---------+----------------+

| title\_id | int(10) | NO | PRI | NULL | auto\_increment |

| title | char(100) | NO | | NULL | |

| retail\_price | double(8,2) | NO | | NULL | |

| pub\_id | int(5) | YES | | NULL | |

+--------------+-------------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> SELECT \* FROM Title;

+----------+----------------------------------+--------------+--------+

| title\_id | title | retail\_price | pub\_id |

+----------+----------------------------------+--------------+--------+

| 1 | The C Programming Language | 39.95 | NULL |

| 2 | The Sword of Shannara Trilogy | 24.95 | NULL |

| 3 | The Legent of the Seventh Virgin | 15.98 | NULL |

| 4 | Thyme of Death | 6.95 | NULL |

| 5 | English Breakfast Murder | 6.95 | NULL |

| 6 | The Jasmine Moon Murder | 16.95 | NULL |

| 7 | The Last Camel Died at Noon | 6.75 | NULL |

| 8 | The Cleansing | 32.50 | NULL |

| 9 | The Ivy Tree | 6.99 | NULL |

+----------+----------------------------------+--------------+--------+

9 rows in set (0.00 sec)

mysql> UPDATE Title SET pub\_id='1' WHERE title\_id=1;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> UPDATE Title SET pub\_id='2' WHERE title\_id=2;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> UPDATE Title SET pub\_id='3' WHERE title\_id=3;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> UPDATE Title SET pub\_id='4' WHERE title\_id=4;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT \* FROM Title;

+----------+----------------------------------+--------------+--------+

| title\_id | title | retail\_price | pub\_id |

+----------+----------------------------------+--------------+--------+

| 1 | The C Programming Language | 39.95 | 1 |

| 2 | The Sword of Shannara Trilogy | 24.95 | 2 |

| 3 | The Legent of the Seventh Virgin | 15.98 | 3 |

| 4 | Thyme of Death | 6.95 | 4 |

| 5 | English Breakfast Murder | 6.95 | NULL |

| 6 | The Jasmine Moon Murder | 16.95 | NULL |

| 7 | The Last Camel Died at Noon | 6.75 | NULL |

| 8 | The Cleansing | 32.50 | NULL |

| 9 | The Ivy Tree | 6.99 | NULL |

+----------+----------------------------------+--------------+--------+

9 rows in set (0.00 sec)

mysql> SELECT \* FROM Publisher;

Empty set (0.00 sec)

mysql> SHOW COLUMNS FROM Publisher;

+--------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+--------+--------------+------+-----+---------+----------------+

| pub\_id | int(5) | NO | PRI | NULL | auto\_increment |

| name | varchar(128) | NO | | NULL | |

+--------+--------------+------+-----+---------+----------------+

2 rows in set (0.01 sec)

mysql> INSERT INTO Publisher(pub\_id, name) VALUES

-> (1, 'Prentice Hall',

-> (1, 'Prentice Hall'),

-> (2, 'Viking Press'),

-> (3, 'Del Rey'),

-> (3, 'Fawcett Books');

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 6

mysql> INSERT INTO Publisher(pub\_id, name) VALUES (1, 'Prentice Hall'), (2, 'Vik ing Press'), (3, 'Del Rey'), (3, 'Fawcett Books');

ERROR 1062 (23000): Duplicate entry '3' for key 1

mysql> INSERT INTO Publisher(pub\_id, name) VALUES (1, 'Prentice Hall'), (2, 'Vik ing Press'), (3, 'Del Rey'), (4, 'Fawcett Books');

Query OK, 4 rows affected (0.00 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql> SELECT \* FROM Publisher;

+--------+---------------+

| pub\_id | name |

+--------+---------------+

| 1 | Prentice Hall |

| 2 | Viking Press |

| 3 | Del Rey |

| 4 | Fawcett Books |

+--------+---------------+

4 rows in set (0.00 sec)

mysql> SELECT title, name AS "Publisher Name" FROM Title, Publisher WHERE Title. pub\_id = Publisher.pub\_id;

+----------------------------------+----------------+

| title | Publisher Name |

+----------------------------------+----------------+

| The C Programming Language | Prentice Hall |

| The Sword of Shannara Trilogy | Viking Press |

| The Legent of the Seventh Virgin | Del Rey |

| Thyme of Death | Fawcett Books |

+----------------------------------+----------------+

4 rows in set (0.00 sec)

mysql>

mysql> SELECT title, name AS "Publisher Name"

-> FROM re\_title, re\_publisher

-> WHERE re\_title.pub\_id = re\_publisher.pub\_id;

+------------------------------------+--------------------------+

| title | Publisher Name |

+------------------------------------+--------------------------+

| The C Programming Language | Prentice Hall |

| Aunt Dimity's Christmas | Viking Press |

| Crewel Lye | Del Rey |

| The Sword of Shannara Trilogy | Del Rey |

| On the Night of the Seventh Moon | Fawcett Books |

| Back Roads and Hidden Places | Sunset Books |

| The Ivy Tree | Harper Torch |

| Nine Coaches Waiting | Harper Torch |

| The Legend of the Seventh Virgin | Fawcett Books |

| Thyme of Death | Berkley Publisher Group |

| Witches' Bane | Berkley Publisher Group |

| The English Breakfast Murder | Prime Crime |

| A Dilly of a Death | Berkley Publisher Group |

| The Jasmine Moon Murder | Prime Crime |

| Crocodile on the Sandbank | Galahad Books |

| The Last Camel Died at Noon | Galahad Books |

| A Walk in Wolf Wood | Harper Torch |

| Snowfire | Fawcett Books |

| Programming with Visual Basic .Net | Thomson Learning |

| Aunt Dimity Snowbound | Viking Press |

| Airs Above the Ground | Harper Torch |

| Brrr! | Greenwillow Books |

| A City Under the Sea | Atheneum Books |

| A Village Christmas | Thomas Nelson Publishers |

| Winter Wheat | Henry Holt and Company |

| Up in a Heaval | Tor Fantasy |

| Dragonfly | Arkham House Publishers |

| In The Stone House | Arkham House Publishers |

| The Cleansing | Arkham House Publishers |

| Shadows over Innsmouth | Arkham House Publishers |

| Whispers in the Night | Arkham House Publishers |

+------------------------------------+--------------------------+

31 rows in set (0.00 sec)

mysql>

IF OBJECT\_ID(sp\_UpdateCustName) IS NOT NULL

DROP PROC sp\_UpdateCustName

CREATE PROCEDURE sp\_UpdateCustName

(@cust\_id as int,

@lastName varchar(15),

@firstName varchar(15))

AS

UPDATE customer

SET last = @lastName,

first = @firstName

WHERE cust\_id = @cust\_id

CREATE PROCEDURE sp\_UpdateCustName

(cust\_id int,

lastName varchar(15),

firstName varchar(15))

BEGIN

UPDATE customer

SET last = lastName,

first = firstName

WHERE cust\_id = cust\_id;

END//

mysql> DELIMITER //

mysql> CREATE PROCEDURE sp\_DisplayItems()

-> BEGIN

-> SELECT \* FROM item;

-> END//

mysql> DELIMITER ;

mysql> CALL sp\_DisplayItems();

mysql> SELECT \* FROM item;

+---------+--------------------------------+---------------------+

| item\_id | description | category |

+---------+--------------------------------+---------------------+

| 1 | Women's Hiking Shorts | Women's Clothing |

| 2 | Women's Fleece Pullover | Women's Clothing |

| 3 | Children's Beachcomber Sandals | Children's Clothing |

| 4 | Men's Expedition Parka | Men's Clothing |

| 5 | 3-Season Tent | Outdoor Gear |

+---------+--------------------------------+---------------------+

5 rows in set (0.00 sec)

mysql> DELIMITER //

mysql> CREATE PROCEDURE sp\_DisplayItems

-> BEGIN

-> SELECT \* FROM item;

-> END//

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'BEGIN

SELECT \* FROM item;

END' at line 2

mysql> CREATE PROCEDURE sp\_DisplayItems()

-> BEGIN

-> SELECT \* FROM item;

-> END//

Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;

mysql> CALL sp\_DisplayItems();

+---------+--------------------------------+---------------------+

| item\_id | description | category |

+---------+--------------------------------+---------------------+

| 1 | Women's Hiking Shorts | Women's Clothing |

| 2 | Women's Fleece Pullover | Women's Clothing |

| 3 | Children's Beachcomber Sandals | Children's Clothing |

| 4 | Men's Expedition Parka | Men's Clothing |

| 5 | 3-Season Tent | Outdoor Gear |

+---------+--------------------------------+---------------------+

5 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

mysql>