Lab 1: MySQL practice

Step 1: Create the following tables in MySql

1. Class: (cname, meets_at, room, fid) PK: cname

Field name	Data type
Cname	Varchar(255)
meets_at	Varchar(255)
Room	Varchar(255)
Fid	Number – long int

2. Enroll (snum, cname) PK (snum, cname)

Field name	Data type
Snum	Number: long int
Cname	Varchar(255)

3. Faculty(fid, fname, deptid) PK(fid)

Field name	Data type
Fid	Number – long int
Fname	Varchar(255)
Deptid	Number – long int

4. Student (snum, sname, major, level, age) PK (snum)

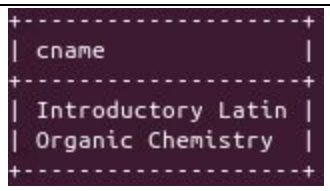
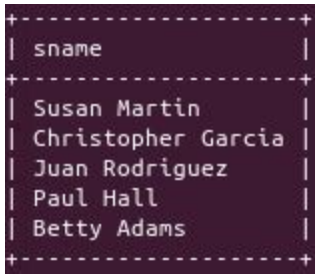
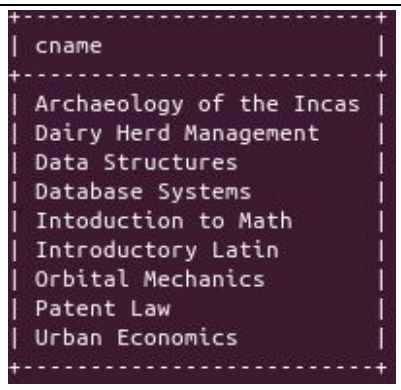
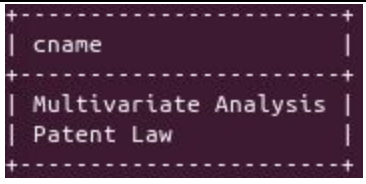
Field name	Data type
Snum	Number – long int
Sname	Varchar(255)
Major	Varchar(255)
Level	Varchar(255)
Age	Long int

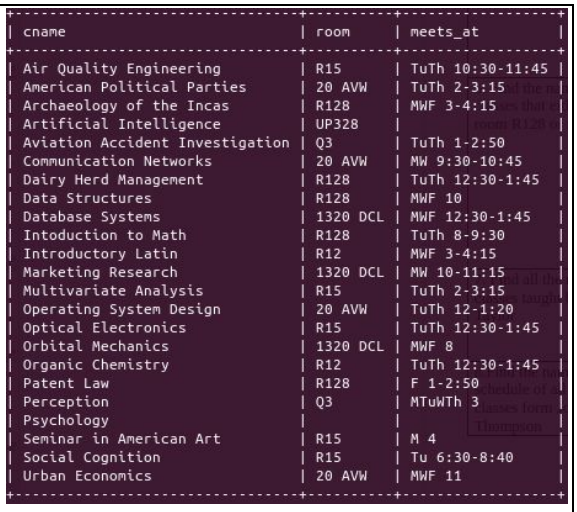
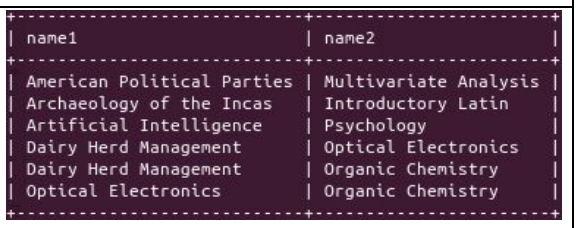
Step 2: Populate data into those tables:

Download all the csv files from Canvas and then FTP them to Unix (if there is no sftp available, please use cut and paste, it works too). After you have that files please use the following command to load each file to the corresponding table:
At linux console, type:
mysql -u <your net id> -p --local-infile <your database name>
Example: mysql -u nguyenh -p --local-infile cs366_nguyenh
You will be asked to type in your login name.
Then after login successfully inside the MySQL, load a csv file into a table as follows:
mysql> LOAD DATA LOCAL INFILE <path to the csv file> INTO TABLE <table name> FIELDS TERMINATED BY ',' LINES TERMINATED BY '\n';
Example:
mysql> LOAD DATA LOCAL INFILE '~nguyenh/CS366/universitydb/student.csv' INTO TABLE student FIELDS TERMINATED BY ',' LINES TERMINATED BY '\n';
You will load all 4 files into 4 corresponding table.

Step 3: Checking these tables to make sure the number of attributes and instances are correct as they are shown in the csv files. Using a set of select * from <table name> command to do that

Step 4: Perform the following queries and copy/paste your queries and results into this table:

Query	SQL	Result
1. Find the student id of all students whose name starts with M.	SELECT snum FROM Student WHERE sname LIKE ‘M%’;	
2. Find the name of the classes that meet at room R12	SELET cname FROM Class WHERE room LIKE ‘R12’;	
3. Find the name of all faculty members who are working at department 20.	SELECT fname FROM Faculty WHERE deptid LIKE ‘20’;	
4. Find the names of all Juniors (level='JR') who are currently enrolled in Database Systems	SELECT sname FROM Student, Enroll WHERE Student.snum = Enroll.snum AND level like ‘JR’ AND Enroll.cname like ‘Database Systems’;	
5. Find the names of all Juniors (level = JR) who are enrolled in a class taught by ‘I. Teach’.	SELECT DISTINCT sname FROM Student, Enroll, Faculty, Class WHERE Enroll.snum = Student.snum AND Class.fid = Faculty.fid AND level LIKE ‘JR’ AND Faculty.fname LIKE ‘I. Teach’;	
6. Find the names of all classes that either meet in room R128 or meet MWF	SELECT cname FROM Class WHERE room LIKE ‘R128’ OR meets_at like ‘MWF%’;	
7. Find all the names of all classes taught by Elizabeth Taylor	SELECT cname FROM Class, Faculty WHERE Class.fid = Faculty.fid AND fname LIKE ‘Elizabeth Taylor’;	

8.Find the names, rooms and schedule of all enrolled classes form Joseph Thompson	SELECT cname, room, meets_at FROM Class, Student WHERE sname LIKE 'Joseph Thompson';	
9. Find the names of all faculty members who teach at R128.	SELECT fname FROM Faculty, Class WHERE Faculty.fid = Class.fid AND room LIKE 'R128';	
10. Find all the pairs of classes that meet at the same time (produce pairs in alphabetic order)	SELECT c1.cname AS name1, c2.cname AS name2 FROM Class c1, Class c2 WHERE c1.meets_at IS NOT NULL AND c2.meets_at IS NOT NULL AND c1.meets_at = c2.meets_at AND c1.cname < c2.cname;	

cname	room	meets_at
Air Quality Engineering	R15	TuTh 10:30-11:45
American Political Parties	20 AVW	TuTh 2-3:15
Archaeology of the Incas	R128	MWF 3-4:15
Artificial Intelligence	UP328	
Aviation Accident Investigation	Q3	TuTh 1-2:50
Communication Networks	20 AVW	MW 9:30-10:45
Dairy Herd Management	R128	TuTh 12:30-1:45
Data Structures	R128	MWF 10
Database Systems	1320 DCL	MWF 12:30-1:45
Intoduction to Math	R128	TuTh 8-9:30
Introductory Latin	R12	MWF 3-4:15
Marketing Research	1320 DCL	MW 10-11:15
Multivariate Analysis	R15	TuTh 2-3:15
Operating System Design	20 AVW	TuTh 12-1:20
Optical Electronics	R15	TuTh 12:30-1:45
Orbital Mechanics	1320 DCL	MWF 8
Organic Chemistry	R12	TuTh 12:30-1:45
Patent Law	R128	F 1-2:50
Perception	Q3	MTuWTh 3
Psychology		
Seminar in American Art	R15	M 4
Social Cognition	R15	Tu 6:30-8:40
Urban Economics	20 AVW	MWF 11

fname
Barbara Wilson
Robert Brown
Linda Davis
Richard Jackson
Elizabeth Taylor

name1	name2
American Political Parties	Multivariate Analysis
Archaeology of the Incas	Introductory Latin
Artificial Intelligence	Psychology
Dairy Herd Management	Optical Electronics
Dairy Herd Management	Organic Chemistry
Optical Electronics	Organic Chemistry

Step 5: submit the Word document containing the table in step 4 to dropbox Lab 1 by midnight of the due date.