

## Exercise 5

In this exercise, you will begin to run simple SQL statements in order to retrieve data from a table.

Before you start the exercise, do the following:

*IF YOU ARE USING MySQL IN THIS EXERCISE:*

1. Start the MySQL server by typing **mysqld** at the DOS prompt.
  - Open up a Command Prompt by going to Start --> All Programs --> Accessories --> Command Prompt.
  - Type the following at the DOS prompt: **cd c:\mysql\bin**
  - Then type the following at the next DOS prompt: **mysqld**
  - You now started the server (the “daemon”) from which you can access the database.
2. Start MySQL client by typing **mysql** at the DOS prompt.
  - Open up another Command Prompt.
  - Type the following at the DOS prompt: **cd c:\mysql\bin**
  - Then type the following at the next DOS prompt: **mysql**
  - You now started a client from which you will run the database.

You are now ready to begin the exercise. We will use a database called “sarsdbase”. At the MySQL prompt, type the following: **use sarsdbase;**

```
mysql> use sarsdbase;
```

For this exercise, I created a simple table called “pttble” (so as to not confuse it with the “patients” table from exercise 4 in case some of you still want to work with your table from last time). The table “pttble” has the following specifications:

```
CREATE TABLE pttble (  
  CDCID VARCHAR(7) NOT NULL,  
  stateID VARCHAR(7) NOT NULL,  
  city VARCHAR(30),  
  county VARCHAR(30),  
  state CHAR(2),  
  age TINYINT(2) UNSIGNED,  
  ageyrs CHAR(3),  
  agemos CHAR(3),  
  gender VARCHAR(6),  
  ethnic VARCHAR(12),  
  raceamerind CHAR(3),  
  raceasian CHAR(3),  
  raceblack CHAR(3),  
  racehawaii CHAR(3),  
  racewhite CHAR(3),
```

```
raceunkn CHAR(3),
residency CHAR(16),
lname VARCHAR(30),
fname VARCHAR(30),
hcw VARCHAR(12),
hcwtype VARCHAR(30),
ptdirect CHAR(3),
occupation VARCHAR(30),
PRIMARY KEY(CDCID,stateID)
);
```

*IF YOU ARE USING MS ACCESS IN THIS EXERCISE:*

1. Start the MS Access and open the database called "sarsdbase.mdb".

I entered fake data on SARS cases into this table so that we could do the following exercises.

1. Display first name and last name for all patients. How many patients are in the table?
2. Display all of the columns in the table using the "all" operator (\*).
3. Display the first name with the alias "First Name" and last name with the alias "Last Name".
4. Display the first and last name for all patients whose last name is "Smith".
5. Display the first names, last names, genders, and ages of all males. Repeat this query but now display all females.
6. Display a list of all cities for the patients and eliminate duplicates.
7. Display first name, last name, city and state for all patients and order by city (in ascending order) and last name (in descending order).
8. Repeat the answer for (7) but now use relative column positions instead of column names in the ORDER BY clause.
9. Display the first and last names of everyone that does NOT have the last name "Smith".
10. Display the first and last names of patients who are white and US residents.
11. Display the first and last names and cities of all those

who live in Oakland or Berkeley.

12.Repeat (11) but now use the IN clause.

13.Continue using MySQL and make up some of your own examples to illustrate the material we covered in lecture.