Andy Wang

CSCI 391

Homework 2

1. What makes SQL a nonprocedural language?

SQL is a nonprocedural language because the user inputs commands and SQL executes them. In procedural languages whatever the programmer enters will happen.

1. How can you tell whether a database is truly relational?

A relational database will have mathematical basis. Where a non-relational database will store key values and graph based.

1. What can you do with SQL?

You can store a huge data in a database and if you know what you are doing you could search through that database very fast.

1. Name the process that separates data into distinct, unique sets.

Normalization.

1. Do the following statements return the same or different output?

SQL isn’t case sensitive so it will return the same results.

1. None of the following queries work. Why not?

For the first one you didn’t specify what you are selecting. For the second one you didn’t specify where (matching conditions) in the query.

1. Which of the following SQL statements will work?

All of them will work except for the last one because you added the extra “/” at the end.

1. Write a query to return just the check officerID and the topCharge.

Select \* officerID;

From arrest

Where officerID = officerID;

Select \* topCharge;

From arrest

Where topCharge = topCharge;

1. Rewrite the query from exercise 1 so that the topCharge will appear as the first column in your query results.

Select topCharge, check from arrest;

1. Using the arrest table, write a query to return all the unique topCharges.

Select distinct remarks from topCharges;

1. Write a query that returns everyone in the database whose last name begins with M.

Select lastname

From doubleAgents

Where lastname like ‘M%’;

1. Write a query that returns everyone who lives in Illinois with a first name of AL.

Select st and firstname

From doubleAgent

Where firstname = ‘AL’ and st = ‘IL’;

1. What shorthand could you use instead of where a >= 10 and a <=30?

Where a between ‘10’ and ‘30’

1. What will this query return?

It will return everyone whose first name starts with AL and also peoples whose last name is Bulher.

1. Using the doubleagent table write a query that returns the following.

Select firstname and st

From doubleagent

Where firstname = ‘AL’ and st = ‘IL’;

1. Using the doubleagents table write a query that returns the following.

Select firstname and lastname and phone

Form doubleagent

Where firstname = ‘Bud’ , ‘JD’, ‘Ferris’ and lastname = ‘Merrick’, ‘Mast’, ‘Bulher’ and phone = ‘300-555-6666’, ‘381-555-6767’, ‘345-555-3223’;

1. Which function capitalizes the first letter of a character string and makes the rest lowercase?

Initcap

1. Which function are also known by the same name?

Aggregate and group functions.

1. Will this query work?

Yes, it will return the total of the rows.

1. How about this one?

No, it will not work because the lastname is all characters.

1. Assuming that they are separate columns which functions would splice together firstname and lastname?

You can use the || symbol and the concat function.

1. What does the answer 37 mean from the following select?

It counts the number of drone strikes, which is 37.

1. Will the following statement work?

It will not work because it is written wrong. Should be like this select substr(lastname,1,5) from name\_tbl;

1. Using a table called shootstats table, write a query to determine who is on target less than .25.

Select members

From shootstats

Where target < .25;

1. Using today’s officers table write a query that will return the following.

Select substr (first, 1, 1) || ‘.’ ||

Substr (middle, 1, 1) || ‘.’ ||

Substr (last, 1, 1) || ‘.’ ||

From officers

Where code = 32;

1. Which clause works just like like(%)?

Starting with.

1. What is the function of the group by clause and what other clause does it act like?

The group by clause basically groups all data results that are manipulated by many other variables/functions. The group by clause is similar to the order by clause.

1. Will this select work?

It will not work because the group by clause must be first followed by the order by clause.

1. When using the having clause do you always have to use a group by also?

Yes you do.

1. Can you use order by on a column that is not one of the columns in the select statement?

Yes, you don’t have to use the select statement when using the order by clause.

1. Using the orgchart table from the following examples find out how many people on each team have 30 or more days of sick leave.

Select sickleave

From orgchart

Where sickleave >= 30;

The result you get should be: 5