CSS225 Lab 2

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Basic SELECT statements

Display a table's structure

- **use** sakila;

- **desc** film;

- **describe** film;

Retrieving data from a table using the SELECT Statement

- **SELECT** * **FROM** actor;

- **SELECT** first_name, last_name **FROM** actor;

- **SELECT** payment_id, customer_id, amount+1 **FROM** payment;

- **SELECT** payment_id, customer_id, round(amount) **FROM** payment;

Retrieving data from a table using the SELECT Statement

- **SELECT** payment_id, customer_id, round(amount) rounding **FROM** payment;

- **SELECT** payment_id, customer_id, round(amount) **AS** 'rounding amount' **FROM** payment;

Selecting rows with conditional restrictions

SYMBOL	MEANING
=	Equal to
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to
<> or !=	Not equal to
BETWEEN	Used to check if an attribute is within a range.
IN	Used to check if an attribute value matches any value within a list.
LIKE	Used to check if an attribute value matches a given string pattern.
IS NULL / IS NOT NULL	Used to check if an attribute is NULL / is not NULL.

Selecting rows with conditional restrictions

- **SELECT** payment_id, customer_id, amount **FROM** payment **WHERE** amount > 1.99;

- Modify the query to display total amount of the payments with amount more than 10.99.

Selecting rows with conditional restrictions

- **SELECT** film_id, title, release_year **FROM** film **WHERE** title < 'B';

- **SELECT * FROM** film **WHERE** title **BETWEEN** 'B' AND 'C';

- Write a query which displays the payment_id, payment_date, amount where the payment is not equal to 0.99.

Selecting rows with conditional restrictions

- **SELECT** * **FROM** film **WHERE** rating **IN** ('R', 'NC-17');

- **SELECT** * **FROM** film **WHERE** title **LIKE** 'B%';

- **SELECT** * **FROM** address **WHERE** address2 **IS NULL**;

- Write a query which displays all attributes in address where the address2 is not null.

Logical Operators

- **SELECT** * **FROM** city **WHERE** city **LIKE** 'a%' **AND** city **LIKE** '%a';

- **SELECT** * **FROM** city **WHERE** city **LIKE** 'a%' **OR** city **LIKE** '%a';

- **SELECT** * **FROM** city **WHERE NOT** city **LIKE** 'a%';

- Display title and length of film having length less than 60 or more than 100.

Sorting Data

- **SELECT * FROM** film **ORDER BY** rating;

- **SELECT * FROM** film **ORDER BY** rating, title;

- **SELECT * FROM** film **ORDER BY** rating, title **DESC**;

Aggregate Functions

Function	Output
COUNT	The **number of rows** containing **non-null values**
MIN	The **minimum** attribute value encountered in a given column
MAX	The **maximum** attribute value encountered in a given column
SUM	The **sum of all values** for a given column
AVG	The **arithmetic mean** (average) for a specified column

Aggregate Functions

- **SELECT DISTINCT(**rating**) FROM** film;

- **SELECT COUNT(*) FROM** address;

- **SELECT COUNT(**address2**) FROM** address;

- **SELECT COUNT(DISTINCT(**rating**)) FROM** film;

Aggregate Functions

- **SELECT MIN**(amount),**MAX**(amount) **FROM** payment;

- **SELECT AVG**(amount), **SUM**(amount) **FROM** payment;

- **SELECT** staff_id, **AVG**(amount) **FROM** payment **GROUP BY** staff_id ;

- **SELECT** staff_id, **AVG**(amount) **FROM** payment **GROUP BY** staff_id **HAVING AVG**(amount) >= 4.2;

Date and Time stamp

- **SELECT** rental_id, rental_date **FROM** rental
  WHERE rental_date > '2005-05-25';

- **SELECT** rental_id, rental_date **FROM** rental
  WHERE rental_date **BETWEEN** '2005-05-25' and '2005-05-26';

- **SELECT** rental_id, rental_date **FROM** rental
  WHERE rental_date = '2005-05-25';

Date and Time stamp

- Display rental_id and return_date in rental table with return date is in June 2005.

- Show rental_id, rental_date, and staff_id in rental table that recorded from 10 pm of May 26,2005 to Midnight by staff_id 2.

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Homework

- Write a query to display all unique rental_duration that exist in the film table.

- Display the maximum, minimum, and average number of length of all film having length between 60 and 100

- Show the city that start with G or contain Z in the city table.

- Write a query to show the total amount of each customer from payment table.

- Display all information from the film table in descending order of the rental price.