Utkarsha Abhang

Roll no-35001

TE IT- A

Assignment No. 3

Title: Queries

Problem Statement: Execute the aggregate function like

count,sum,avge consuitable database.Make use of built in function according to need of the data base choosen.Retrive the data from the database based on time and date function like now(),date(),day(),time()etc.group by clause and having clause

Requirements: Mysql

Prerequisites : Basic knowledge of Mysql

Theory:

1. Aggregate function: In database management an aggregate function is a function where the values of multiple rows are grouped together as input on certain criteria to form a single value of more significant meaning

**Various Aggregate Functions:**

1) Count() : Returns total number of records.

2) Sum(): Sum all Non Null values of Column

3) Avg(): Return Average of the column.

4) Min():Minimum value in the column

5) Max(): Maximum value in the column.

### 2.Group by Clause:The GROUP BY clause is a SQL command that is used to **group rows that have the same values**.

### GROUP BY Syntax:

### SELECT statements... GROUP BY column\_name1[,column\_name2,...] .

3.Having Clause:

It's not always that we will want to perform groupings on all the data in a given table. There will be times when we will want to restrict our results to a certain given criteria.  In such cases , we can use the HAVING clause

Suppose we want to know all the release years for movie category id 8. We would use the following script to achieve our results.

Having Syntax:

SELECT \* FROM `movies` GROUP BY `category\_id`,`year\_released` HAVING `category\_id` = 8;

4.Set operations:

Set operations like UNION, INTERSECTION, MINUS etc are implemented using join methods.

* UNION (U) This operation combines the records in both the tables and eliminates the duplicate records.
* INTERSECTION (∩) This operation selects the records which are common to both the tables.
* MINUS (-) This operation selects the record from first table which does not exist in the second table.

5.Join operations:

The SQL Joins clause is used to combine records from two or more tables

in a database. A JOIN is a means for combining fields from two tables by

using values common to each.

Types of JOIN

1. Inner

2.Outer

3.Left

4.Right

5.Full Outer Join

INNER Join or EQUI Join

This type of JOIN returns rows from all tables in which the join

condition is true

syntax:

SELECT columns FROM table\_1 INNER JOIN table\_2 ON

table\_1.column = table\_2.column

LEFT OUTER JOIN

This type of join will return all rows from the left-hand table plus

records in the right-hand table with matching values.

Syntax:

SELECT column-name-list FROM table-name1 LEFT OUTER JOIN

table-name2 ON table-name1.column-name = table-

name2.column-name;

RIGHT OUTER JOIN

This type of join returns all rows from the right-hand table and

only those with matching values in the left-hand table.

Syntax:

SELECT column-name-list FROM table-name1 RIGHT

OUTER JOIN table-name2 ON table-name1.column-name

= table-name2.column-name;

FULL OUTER JOIN

This type of join returns all rows from both tables with NULL

values where the JOIN condition is not true.

Syntax:

SELECT column-name-list FROM table-name1 FULL

OUTER JOIN table-name2 ON table-name1.column-

name = table-name2.column-name;

6.All inbuilt function(Date and Time Function):

Date and Time Functions Function That Return System Date and Time Values. Functions That Return Date and Time Parts. Functions That Return Date and Time Values from Their Parts. Functions That Return Date and Time Difference Values.

1)Date:

**NOW():** Returns the current date and time.

Example: SELECT NOW();

**CURDATE()**: Returns the current date.

Example:SELECT CURDATE();

**CURTIME():**Returns the current time.

Example:SELECT CURTIME();

**DATE()**: Extracts the date part of a date or date/time expression.

2)Time:

TIME()

This function displays the time part of a time or date time expression in the form of a string. For example

Conclusion:In this assignment we learn different type of Functions,Clause,Opeartion.