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Wo7 paper

CIT 225 Database Design and Development

By grouping data, a GROUP BY command is used to group the result set and in most cases, it is used with aggregate functions such as MAX(), MIN|(), COUNT(), and extra, where the MAX() function returns the highest value from the data set, MIN() function returns the lowest value from the data set and the COUNT() function returns the number of values in a data set based on the SELECT statement. i.e

SELECT customer\_id, payments

FROM customers,

GROUP BY payments;

Here aggregate becomes a key factor in that they give out the exact value after looping through a given data set and giving out one single value from a large database.

Example: Finding the maximum and minimum age values from a 1500 data set.

SELECT MAX(age) Highest age,

MIN(age) Lowest age,

SUM(age) Total\_ages

FROM people;

This returns the maximum, minimum, and sum of the age of people from the people table.

Using the COUNT() function, this finds the number of all members/data in a group/table with distinct values. The DISTINCT keyword eliminates all duplicate records from the results. In brief, it returns different values from a table with duplicate data(repetitive data)

i.e

SELECT DISTINCT column 1, column 2,….

FROM table\_name;

Counting numbers with/without NULL, with the COUNT() function returns only non-NULL values from a selected table and all NULL values will be ignored whereas using COUNT(\*) \*=> specifies that all values will be returned including NULL values.

For single\_column grouping is the most efficiently used type of grouping, it is used to find the number of Items in a selected table associated with each id/name of the same table, and multi-column grouping uses more than one table by using a JOIN() function to group data.

For single;

SELECT table\_column, COUNT(\*)

FROM table\_name,

GROUP BY table\_column;

For multi-column;

SELECT column1, column2, COUNT(\*)

FROM table\_1,

JOIN table\_2,

ON tables 1&2 condition,

GROUP BY column1, column2;