**C-406** DAY-1

**Foundations of SRE -RDBMS and SQL**

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* Today I have learned about the SQL queries and implemented through the MySql.
* Got a different view about table creation through a cupboard example which was given by the trainer. helped to identify how the SQL works in searching.
* To create a DATABASE and use it
  + CREATE DATABASE SCHOOL;
    - This creates a database SCHOOL.
  + USE SCHOOL;
    - This uses the specific database SCHOOL.
* To create a table under the DATABASE SCHOOL

CREATE TABLE STUDENT (

ID INT,

NAME VARCHAR2(20),

STREAM VARCHAR2(20),

PRIMARY KEY(ID)

);

* In most of the cases DDL commands are faster than the DML commands
  + For e.g. TRUNCATE is faster than the DELETE just takes 0.000 sec to be executed.
* Used RENAME for renaming the table by 2 ways.
  + RENAME TABLE STUDENT TO NEW\_STUDENT;
  + ALTER TABLE STUDENT RENAME TO NEW\_STUDENT;
* Learned how the deep copies and shallow copies are created in the SQL.
  + 2 Ways for copying the old student relation data to new student relation.
  + For the Deep copy we use
    - CREATE TABLE OLD\_STUDENT SELECT \* FROM OLD\_STUDENT;
  + For the Shallow copy we use
    - CREATE TABLE NEW\_STUDENT LIKE OLD\_STUDENT;
      * It just creates the schema only no data is copied.
* To get a view of the table as per requirements we use SELECT.
  + SELECT \* FROM STUDENT;
    - This query will get all the columns of the STUDENT table.
* By default if we do sorting of table rows
  + it is ASCENDING ALWAYS just mention ORDER BY COLUMN\_NAME.
  + to get descending order use ORDER BY COLUMN\_NAME DESC.
* To get the description about the table e.g. columns, datatypes.
  + DESC STUDENT;
* To create a temporary table
  + CREATE TEMPORARY TABLE TEMP\_STUDENT(

… COLUMN AND DATATYPE DECLARATION

)

* Whenever we use HAVING It is mandatory to use GROUP BY otherwise it will not work. But when using GROUP BY it is optional to use HAVING.
* The primary key will be the first default key while retrieving the data from the table
* The data is aggregated by how it is spread across on the memory disk .if we specify the GROUP BY . then it will be of specific order.
* When we use GROUP BY so there are multiple table are created with the UNIQUE COLUMN values and have multiple related rows. And after that result are filtered out.
* Using the HAVING with GROUP BY is just like using the WHERE with FROM for the filter of the results.
* Used the wildcard for the searching patterns
  + e.g. SELECT NAME FROM STUDENT LIKE ‘P%’
    - it will print the student name starts with the P.
* Learned the aggregation functions such as COUNT,AVG,MIN,MAX with the GROUP BY and having
* Done today 10 SQL queries today on leetcode basics.