**Instructions:**

Please share your answers filled in line in the Word document. Submit code separately wherever applicable.

Please ensure you update all the details:

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**Topic: Introduction to sql and sql commands**

1. What is SQL, and what are some common uses for it in database management?

SQL, or Structured Query Language, is a standard programming language used for managing relational databases, including tasks such as creating, querying, updating, and deleting data.

1. What is a foreign key in SQL, and how is it used to establish relationships between tables?

A foreign key in SQL is a column or set of columns in a table that establishes a relationship with the primary key or a unique key column(s) in another table, ensuring data integrity by enforcing referential constraints between related tables.

**DATABASE CREATE:-**

1. Create a database ‘classroom’
2. Create a table named ‘science\_class’ with the following properties

3 columns(enrollment\_no int, name varchar, science\_marks int)

**INSERTING & IMPORTING:-**

1. Insert the following data into science\_class using insert into command

|  |  |  |
| --- | --- | --- |
| 1 | popeye | 33 |
| 2 | olive | 54 |
| 3 | brutus | 98 |

CREATE DATABASE classroom;

USE classroom;

CREATE TABLE science\_class (

enrollment\_no INT,

name VARCHAR(30),

science\_marks INT

);

INSERT INTO science\_class VALUES

(1, 'popeye', 33),

(2, 'olive', 54),

(3, 'brutus', 98);

1. Import data from CSV file ‘student.csv’ attached in resources to science\_class to insert data of next 8 students

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.3/Uploads/Student.csv'

into table science\_class

fields terminated by ','

enclosed by ''''

lines terminated by '\n'

ignore 1 rows;

**SELECT & WHERE:-**

1. Retrieve all data from the table ‘Science\_Class’

SELECT \* FROM science\_class;

1. Retrieve the name of students who have scored more than 60 marks

SELECT name FROM science\_class WHERE science\_marks > 60;

1. Retrieve all data of students who have scored more than 35 but less than 60 marks

SELECT \* FROM science\_class WHERE science\_marks > 35 AND science\_marks < 60;

1. Retrieve all other students i.e. who have scored less than or equal to 35 or more than or equal to 60.

SELECT \* FROM science\_class WHERE science\_marks <= 35 OR science\_marks >= 60;

**UPDATING TABLES:-**

1. Update the marks of popeye to 45

UPDATE science\_class SET science\_marks = 45 WHERE name = 'popeye';

1. Delete the row containing details of the student named ‘robb’

DELETE FROM science\_class WHERE name = 'robb';

1. Rename column ‘name’ to ‘student\_name’

ALTER TABLE science\_class CHANGE COLUMN name student\_name VARCHAR(30);