

LESSON PLAN

CLASS- XII	SUBJECT- COMPUTER SCIENCE	DATE:
CHAPTER: 10	CHAPTER NAME: Structure Query Language	

SUMMARY SHEET	
Pedagogical Approach: Instruction, Practical and mixed participation-based learning	
Learner Previous Knowledge	DBMS concepts and about data types of MY SQL
Target Knowledge	➤ Create tables in SQL ➤ How to add information to tables? ➤ SELECT ... FROM...WHERE (with aggregate functions) ➤ GROUP BYHAVING ➤ ORDER BY ➤ UPDATE AND DELETE Command ➤ ALTER TABLE AND DROP TABLE Command

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Period No. (approx. 40 min each)	Lesson Objectives
1	- What is SQL? - How to create tables in SQL? - How to add information to tables? - SELECT ... FROM...WHERE (with aggregate functions)
2	- GROUP BYHAVING - ORDER BY
3	- UPDATE AND DELETE Command - ALTER TABLE AND DROP TABLE Command
Pre-requisite for the course (KNOWLEDGE)	This lesson requires the following pre-knowledge: - Knowledge of basic concept of DBMS. - Data Types of MY SQL
Learning Objectives	Students will be able to: - Understand the purpose of MY SQL. - Create , Modify and Drop table. - Perform different operation on tables. - Retrieve information from tables.
Life Skills	➤ Critical thinking ➤ Problem solving
Teachers' activity (Methodology used)	Demonstration based active-learning instructional strategies: ➤ Teacher will introduce the topic by the purpose of Numerical Python. Explain Types of NumPy Array. ➤ Describe operation on table. ➤ Perform different DDL and DML Commands. ➤ Explain how to maintain Database. Activity: ➤ Give command to write queries based on different DDL and DML Commands. ➤ Give Queries to find the outputs. Problem solving method : Give some programs to write query:- ➤ Neha has created a table 'student' with rollno, name, class and section. Now she is confused to set the primary key. So identify the primary key column. ➤ Write SQL query to add a column totalprice with data type numeric and size 10, 2 in a table product. ➤ The name column of a table 'student' is given below.

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	<table><tr><td>Neha</td></tr><tr><td>Nisha</td></tr><tr><td>Nikhil</td></tr><tr><td>Mohan</td></tr></table>	Neha	Nisha	Nikhil	Mohan
	Neha				
	Nisha				
	Nikhil				
	Mohan				
Based on the information, find the output of the following queries: 1. Select name from student where name like "%a"; 2. Select name from student where name like "%h%"; ➤ A customer table is created with cno,cname, and address columns. Evaluate the following statement whether it is correct or not? Delete cname from customer; Discussion points: • Need and purpose of DBMS. • Difference between DDL and DML Commands. ➤ Perform Alter command to change structure of table. Inquiry based learning (Critical thinking and Problem solving): • To maintain Database of the School with all constraint.					
Recapitulation (Collaborative learning): • Frame a MIND-MAP of all DDL and DML Command. • Create a small project where MY SQL as a BACKEND .					
Teaching Learning Aids	➤ e-book ➤ Power Point Presentation ➤ Videos ➤ White Board ➤ MY SQL				
Students' Learning Outcomes	Students would be able to: • Know the purpose of DBMS. • Apply the concept of Constraints on data. • Retrieve Information from raw facts. • Understand about the backend of any Software.				
Assessment	• Continuously monitor student's learning growth by asking oral questions. • Promoting active involvement of students in their own learning by asking students to focus on written practice of coding in the class. • Written test • Questionnaire • Group discussion				
Self-Study, Assignments, Homework	• Self-Study (reinforcing the concepts by going through the chapter in the book)-The teacher would ensure that each student should execute all programs on python interpreter. • Performing simple projects under the guidance of the teacher. • Discussion of last year questions by the teacher in the class.				

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Students will write the answers in their classwork notebooks.
Teacher will take rounds in the class to ensure that all the students do written practice and practical also.

Homework (Question Bank):

On completion of the chapter, students will be answer the following revision questions in their homework notebooks:

- Study the following table(s)

Courier

CNO	CRec	CSen	Amount	CDat	City
159	Vicky	Jack	250	01-Jan-2018	Los Angeles
245	Sam	Kate	220	11-Feb-2019	Paris
358	Alex	Sam	315	30-Apr-2018	London
468	Louis	Simmy	160	01-Mar-2018	Los Angeles
576	Terry	Jane	190	01-Aug-2019	Mexico
688	Lima	Roger	200	03-Nov-2019	Mexico
790	Rosy	Richard	200	21-Jul-2019	Los Angeles
894	Luke	Richard	325	17-May-2018	London
940	Elizabeth	Nicole	150	15-Jan-2019	Paris
999	Nicolas	Longmen	100	10-Jul-2019	Paris

Write the queries of the following:

- To display crec, cdate and city of all the couriers in decreasing order or amount
- To view cno, amount from the table courier having cdat between 01-apr-2018 and 01-jun-2018
- To view the number of couriers with amount more than 200.
- To view total amount for each city from the table courier

Write the output of the following:

- Select cno, crec, from courier where city like 'P%';
- Select count(cno) from courier where csen like 'R%';
- Select max(amount). Min(amount) from courier;

- Short Note on

- DDL Command
- DML Command
- Group By

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	4. Having Clause 5. Where Clause ➤ Difference Between 1. DDL and DML 2. Primary Key and Foreign Key 3. Where clause and Having Clause 4. Single row functions and multi row functions ➤ Write the syntax of creating table command. ➤ Write the syntax of dropping table command. ➤ What all are the clause possible in select statement. ➤ What is the default value of order by command? ➤ Differentiate between delete and drop table command.
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