MYSQL Lab Questions

Level 1

1.13.1.1 Write the MYSQL statement to create a new database called testDB and show all the database created. Then write query to delete the database testDB

1.13.1.2 Write the MYSQL statement to create a new table called Persons that contains five columns: PersonID, LastName, FirstName, Address, and City.

a. Write MySql statement to change the name of the attribute City to District.

b. Write the MYSQL statement to add a new column named Age.

c. Write MySql statement to change the data type of age to tiny int.

d. Write MySql statement to delete the table named Persons

1.13.1.3 Write the MYSQL statement to insert values into a new table called Student that contains five columns:

Reg No, Name, Blood group, age, mobile number.

a. Display the details
b. Add a new column named mark and input values to it
c. Display all the details of students whose age is greater than 18.
d. Display all the details of students sorted in the order of their names.
e. Delete all the contents of the table.
f. Delete the structure of the table.

Level 2

1.13.1.4**.**Create a table Student with the following fields and insert at least 5 records into the table except for the column Total.

Roll Number Integer Primary key

Name Varchar (25)

Batch Varchar (15)

Mark1 Integer

Mark2 Integer

Mark3 Integer

Total Integer

a. Update the column Total with the sum of Mark1, Mark2 and Mark3.

b. List the details of students in science batch.

c. Display the name and total marks of students who are failed (Total < 90).
d. Delete the student who scored below 30 Marks

1.13.1.5.Create a table Employee with the following fields and insert at least 5 records into the table except the column Gross_pay and DA.

Emp_code Integer Primary key

Emp_name Varchar (20)

Designation Varchar (25)

Basic_pay Decimal (10,2)

DA Decimal (10,2)

Gross_pay Decimal (10,2)

a. Update DA with 24% of Basic.

b. Display the details of employees with designation 'Manager'

c. Update the Gross_pay with the sum of Basic and DA.

d. Display the details of employee with gross pay below 10000.

e. Delete all the clerks from the table.

1.13.1.6.Create a table Book with the following fields and insert at least 5 records into the table.

Book_ID Integer Primary key

Book_Name Varchar (20)

Author_Name Varchar (25)

Pub_Name Varchar (25)

Price Decimal (10,2)

a. Create a view containing the details of books published by Spectrum.

b. Display the average price of books published by each publisher.

c. Display the details of book with the highest price.

d. Display the publisher and number of books of each publisher in the descending order of the count.

e. Display the title, current price and the price after a discount of 10% in the alphabetical order of book title.

1.13.1.7.Create a table Bank with the following fields and insert at least 5 records into the table.

Acc_No Integer Primary key

Acc_Name Varchar (20)

Branch_Name Varchar (25)

Acc_ Type Varchar (10)

Amount Decimal (10,2)

a. Display the branch-wise details of account holders in the ascending order of the amount.

b. Insert a new column named Minimum_Amount into the table with default value 1000.

c. Update the Minimum_Amount column with the value 500 for the customers in branches other than Alappuzha and Malappuram.

d. Find the number of customers who do not have the minimum amount 1000.

e. Remove the details of SB accounts from Vaikom branch who have zero (0) balance in their account.

1.13.1.8.Given the following Employee Form:

No	Name	Age	Department	Dateofrtd	Salary	Sex
1	Pankaj	54	Engg.	10/01/97	1200	M
2	Shalini	41	Estbl	24/03/98	2000	F
3	Sanjay	32	Engg.	12/12/96	3500	M
4	Sudha	25	Science	01/07/99	4700	F
5	Rakesh	32	Engg.	05/09/97	2500	M
6	Shakeel	40	Language	27/06/98	3000	M
7	Surya	44	Estbl.	25/02/97	2100	M
8	Shikha	33	Science	31/07/97	2600	F

Write SQL commands

a. To show all information about the employees of Engg. Branch
b. To list the names of female employees who are in Science branch
c. To list the names of all employees with their date of retirement in ascending order.
d. To display Employee's name , Salary ,Age for male employees only
e. To count the number of employees with AGE > 33.

1.13.1.9. Create a table Stock, which stores daily sales of items in a shop, with the following fields and insert at least 5 records into the table.

Item_code Integer Primary key

Item_name Varchar (20)

Manufacturer_Code Varchar (5)

Qty Integer

Unit_Price Decimal (10,2)

Exp_Date Date

a. Display the details of items which expire after 31/3/2023 in the order of expiry date.

b. Find the number of items manufactured by the company "TATA".

c. Remove the items which expire between 31/12/2022 and 01/02/2023.

d. Add a new column named Reorder in the table to store the reorder level of items.

e. Update the column Reorder with value obtained by deducting 10% of the current stock

1.13.1.10. The structure of a table is given to store the details of marks scored by students in an examination.

Data	Type	Description
Register number	Numeric	A unique and essential data to identify a student
Name	String	A maximum of 30 characters
Course	String	It can be Science, Commerce or Humanities
Marks of six subjects	Numeric each	Six separate columns are required

Write SQL statements for the creation of the table and execute the following:

a. Insert data into the fields (at least 10 records).
b. Display the details of all students.
c. List the details of Science group students.
d. Count the number of students in each course.
e. Add a new column named Total to store the total marks.
f. Fill the column Total with the sum of the six marks of each student.
g. Display the highest total in each group.

h. Find the highest, lowest and average score in Subject 6 in Commerce group.
i. Display the names in the alphabetical order in each course.
j. Display the name of the student with the highest total.

1.13.1.11. WRITE AN SQL STATEMENT TO CREATE A SIMPLE TABLE 'STUDENT_TBL' INCLUDING COLUMNS ID, NAME, PLACE, GENDER AND SET ID AS THE PRIMARY KEY WHICH CANNOT CONTAIN NULL VALUES.

STUDENT_TBL			
STUD_ID	STUD_NAME	STUD_PLACE	STUD_GEN
7	ARUN	KTM	M
3	MEENU	EKM	F
9	AISWARYA	TVM	F
1	RAHUL	TCR	M
5	AMAL	EKM	M
2	RITHU	EKM	F
4	ARJUN	KTM	M
6	RENJITH	EKM	M

a. Write MYSQL statement to display table.
b. Add a new column named 'Email' and add provide Email Id rahul@gmail.com where stud_id=1' .
c. Delete the column email.
d. Delete the record where stud_name is Amal.

1.13.1.12. Create a database named "employees" with a table named "employee_info" that contains the following fields: employee_id, first_name, last_name, email, and hire_date.

a. Insert the following data into the employee_info table:
   - 001, John, Doe, john.doe@email.com, 2021-01-01
   - 002, Jane, Smith, jane.smith@email.com, 2021-02-01
   - 003, Bob, Johnson, bob.johnson@email.com, 2021-03-01
b. Write a query to retrieve all the employee information from the employee_info table.
c. Write a query to retrieve the employee information for the employee with an employee_id of 002.
d. Write a query to update the email address for the employee with an employee_id of 001 to john.doe@newemail.com.
e. Write a query to delete the employee with an employee_id of 003 from the employee_info table.
f. Create a new table named "employee_salary" with fields employee_id and salary.

g. Insert the following data into the employee_salary table:
    - 001, 50000
    - 002, 60000
    - 003, 70000
h. Write a query to retrieve the total salary for all employees.
i. Write a query to retrieve the average salary for employees.

1.13.1.13**.** Create a database named "university" with two tables named "students" and "courses". The "students" table should have the following fields: student_id, first_name, last_name, and email. The "courses" table should have the following fields: course_id, course_name, and course_description.

a. Insert the following data into the "students" table:

001, Sachin, Tendulkar, sachin@email.com

002, Yuvraj, Singh, yuvi@email.com

003, Rohit, Sharma, rohit@email.com

b. Insert the following data into the "courses" table:

101, Introduction to Computer Science, An introduction to the fundamentals of computer science.

201, Data Structures and Algorithms, covers data structures and algorithms used in computer programming.

301, Web Development, An introduction to web development using HTML, CSS, and JavaScript

c. Write a query using INNER JOIN to retrieve the course information and student information for all students.

d. Write a query using LEFT JOIN to retrieve the course information and student information for all students, including those without a corresponding course.

e. Write a query using RIGHT JOIN to retrieve the course information and student information for all courses, including those without a corresponding student.

f. Write a query using OUTER JOIN to retrieve the course information and student information for all courses and students, including those without a corresponding course or student.

1.13.1.14. Create two tables: "employees" and "departments". The "employees" table has columns for employee ID, first name, last name, and department ID. The "departments" table has columns for department ID and department name.

Display the names of all employees who work in the "Sales" department.