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Q. creation of Database in MYSQL

To create a database in MYSQL, 'Create Database' statement is used.

Syntax:-

Create Database database_name;

Execution :

Create Database mydatabase ;

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Q Use a Database in MYSQL

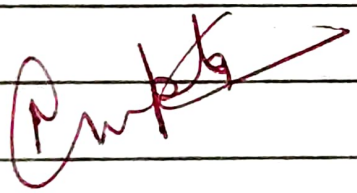
To use an existing Database, 'Use' keyword is used

Syntax:-

Use database_name;

Execution:-

Use mydatabase;



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7) It is possible to have a identifier name that is only one character long, more 32 character long.

8) must not be a duplicate of the name of another object owned by the same user/ schema / database.

Syntax:-

Create table < Table_name > (columnName, Datatype, Constraints);

Execution:-

```
Create table Student(
        sid number(2),
        sname varchar(20),
        s_address varchar(50)
        );
```

To view the structure of the table

Syntax:-

```
desc tablename;
```

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Output:-

Field	type	Null	Key	Default	Extra
Sid	int	Yes		Null	
S_name	varchar(20)	Yes		Null	
S_address	varchar(50)	Yes		Null	

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Execution:- desc student;

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Create Table Statement

Q1. Write SQL Statement to create the following table: table name: DEPT

DEPTNO	DNAME	LOC
numeric datatype with size 2	varchar datatype with size 15	varchar datatype with size 13

DEPTNO - PRIMARY KEY
DNAME - REQUIRED

Ans
```
Create table DEPT (
    DEPTNO   numeric (2)   PRIMARY KEY,
    DNAME    varchar (15)  not null,
    Loc      varchar (15));
```

Q2. Create the following table EMP with constraint declaration.

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
Numeric(4) Primary key	Varchar(10) NotNull	Varchar (9)	Numeric (4)	Date	Numeric (7,2)	Numeric (7,2)	Numeric(2) FOREIGN KEY, REFERENCE DEPT

```
Create table EMP (
    EMPNO   numeric (4)   PRIMARY KEY,
    ENAME   varchar (10)  NOT NULL,
```

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JOB varchar(9)
MGR numeric(4),
HIREDATE date,
SAL numeric(7,2),
COMM numeric(7,2),
DEPTNO numeric(2), FOREIGN KEY(DEPTNO) REFERENCES DEPT(DEPTNO) ON DELETE CASCADE);

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Data manipulation language statement allows you to query, edit, add and remove data stored in database objects.

The primary DML command, you can perform powerful action on the actual data stored in your system.

Insert query

Insert the appropriate data in the employee table. Write an SQL statement.

Insert table employee (empno, ename, Job, dob, Salary, bonus, deptno) VALUES (1001, 'RUCHI', 'MANAGER', '2020-05-23', 10000, 500, 10);

Update query

Write the SQL statement for update the loc who: PUNE where deptno is 10, from department.

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Update department,
SET LOC = 'PUNE'
where deptno = 10;

Delete query

Write the SQL statement for deleting the data where LOC is DELHI in department table.

Delete from , department
where LOC, 'DELHI';

Select Statement

To query information from the database select database statement are used to retrieve data from SQL tables.

Semicolon (;) is the execution (or termination point of the SQL statement)

Retrieve name of all the employees along with their Job.

Select ename , Job from employee;

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Relational Operation

Retrieves names of all employees who in department number.

```
Select ename from employee
where deptno =10;
```

Retrieve names of all employees with their salary who are earning 4000 and more.

```
select ename, salary from employee where
salary >= 4000;
```

Logical Operation

Retrieve names of all employees salary and their department number who are earning more than 5000 who work in department number 20.

```
Select ename, salary, deptno
from employee where
salary > 5000 AND deptno =20;
```

Retrieve name of all employees department number and their salary who are working in department number 20 are who are Manager.

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Select ename, salary, deptno
from employee where deptno = 20 OR job = MANAGER;

Output

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Other Operations

like operation

Display all the employee name whose names start with 'R'.

```
Select ename from employees
where ename like 'R%';
```

NOT Operation

Display all the employee names and their and salaries whose salaries are not in the range of 5000 and 6000.

```
Select ename, salary from employee
where salary NOT BETWEEN 5000 AND 6000;
```

Between operation

Display all the employees name and their date of joining who have joined between '17-Jan-98' AND '17-Dec-98'

```
Select ename , doj from employee where doj
Between '17-JAN-98' AND '17-Dec-98';
```

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NVL() in Select Statement

Write SQL statement to display to increase the bonus with ₹100.

Select ename, bonus, NVL(Bonus,0) +100 from employee

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Group By

Retrive the total salary of all employees in each department.

```
Select deptno, SUM(salary) from department
    ORDER BY deptno DESC;
```

Having Clause

Display the average salary of each job, jobwise excluding manager.

```
Select job, Avg(salary) from employee where
  job != 'MANAGER' GROUP BY job
```

Display the total salary of each department whose total salary is greater than 13000

```
Select deptno, SUM(salary) from employee GROUP BY
  deptno HAVING SUM(Salary)>13000;
```

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Joins

Retrive all employee names along with their department names

```
Select e.ename, d.dname from employee e,
department d where e.deptno = d.deptno;
```

Retrive all employee numbers and their names who work in RESEARCH department

```
Select e.empno, e.ename from employee e,
department d where e.deptno = d.deptno AND
d.dname = 'RESEARCH';
```

Retrive table Employee by using full outer Join with department.

```
select e.employee , e.deptno , e.name , d.deptno,
d.dname
from employee e full OUTER JOIN department
d on e.deptno = d.deptno;
```

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Retrive table department and employee by using RIGHT OUTER JOIN

```
Select d.dname , e. ename , d. deptno.
from employee e RIGHT OUTER JOIN Department
d on e. deptno = d. deptno;
```

Retrive table employee and department by using LEFT OUTER JOIN.

```
Select d. deptno , e . employee , e. ename
from department d LEFT OUTER JOIN
employee e ON d. deptno = e. deptno;
```

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