PRACTICAL 3

AIM: Perform Data Definition Language (DDL) commands and change the existing schema as per given information.

Constraints -

- Not Null Constraints: Ensure critical fields are not null.
- Unique Constraints: Ensure data integrity by limiting column values.
- Check Constraints: Ensure columns have unique values where required.

DESCRIPTION:

- 1) Select column_name from table_name This command retireves all the data from that particular columns and display in the output. For whole data we can simply use * instead of column_names.
- 2) Where This clause is used with select command, to store / display / change a particular data. For eg. Where no.=22, where name = "akfbasb" etc.
- 3) Between, and this command / clause are used when we want to find the data between the particular given things. Eg. Between 2 dates, between 2 days, between 2 years etc.
- 4) Update, set This are used when we want to change something in a table, when we want to update some data and set it to another data.
- 5) Delete-This query is used to permanently delete a tuple/row from a table.
- **6)** MAX, MIN ,AVG This are all used when we want to find maximum, minimum or avg from a particular column. Simple write MAX/MIN/AVG(column_name).
- 7) >,<,= This are all the operators which are used with a where clause for finding some particular data.
- **8**) Order by , desc , asc This is used when we want to display that data in a particular order, ascending or descending. Order by column_name asc/desc .
- 9) Concat This is used for merging the data of the 2 column Into a column, which can be helpful many a times.

OUTPUT:

1) Retrieve all data from employee, jobs and deposit.

QUERY:

select * from employee, job , deposit;

EMP_NO	EMP_NAME	EMP_SAL	EMP_COMM	DEPT_NO	PHONE	JOB_ID	JOB_TITEL	MIN_SAL	MAX_SAL	EMP_NO	NAME	BNAME	AMOUNT	A_DATE
13	dharmik	99999	123	2	-	23dit01	it	1500	15000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	23dit02		-	-	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	it_prog	programer	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	mk_mgr	marketing manger	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	fi_mgr	finance manger	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	fi_acc	account	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	lec	lecter	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
13	dharmik	99999	123	2	-	comp_op	computer opreter	4000	10000	13	dharmik gohil	depstar	15000	01-JUN-23
101	smith	800	500	20	-	23dit01	it	1500	15000	13	dharmik gohil	depstar	15000	01-JUN-23
101	smith	800	500	20	-	23dit02		-	-	13	dharmik gohil	depstar	15000	01-JUN-23
More than 10	rows available. Inc	crease rows sele	ctor to view more r	OWS.										

10 rows returned in 0.01 seconds

2) Display job title and maximum salary of all jobs.

QUERY:

select job_titel , max_sal from job1;

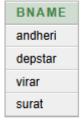
JOB_TITEL	MAX_SAL
it	15000
-	-
programer	10000
marketing manger	10000
finance manger	10000
account	10000
lecter	10000
computer opreter	10000

8 rows returned in 0.02 seconds

3) Write a query to find out all the branches.

QUERY:

SELECT DISTINCT bname FROM deposit;



4 rows returned

4) Display all the account no. into which rupees are between dates 01-01-06 and 25-07-06.

QUERY:

SELECT emp_no,a_date FROM deposit WHERE a_date between '01-jun-23' and '03-jun-23';



5) Display names of all customers whose account is deposited after 09-oct-06.

QUERY:

IT260 DATABASE MANAGEMENT SYSTEM select name, amount from deposit where a_date>'09-jan-06';

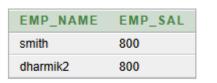
_	
NAME	AMOUNT
dharmik gohil	15000
sunil	70
jay	5000

³ rows returned in 0.00 seconds

6) Display name and salary of employee whose department no is 20. Give alias name to name of employee.

QUERY:

select emp_name,emp_sal from employee
where dept_no = '20';



2 rows returned in 0.00 seconds

7) Display employee no, name and department details of those employee whose department lies in(10,20).

QUERY:

select emp_no,emp_name,dept_no from employee where dept_no in(10,20);

EMP_NO	EMP_NAME	DEPT_NO
101	smith	20
103	dharmik2	20
105	amita	10

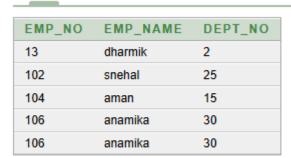
3 rows returned in 0.01 seconds

CSV Export

8) Display employee no, name and department details of those employee whose department not in(15,30) except 25.

QUERY:

select emp_no,emp_name,dept_no from employee where not dept_no in(10,20) or dept_no = 25;



5 rows returned in 0.02 seconds

9) Display employee no, name and department details of those employee whose department no is between 15 and 25.

QUERY:

 $select\ emp_no, emp_name, dept_no\ from\ employee$

where dept_no between '15' and '25';

EMP_NO	EMP_NAME	DEPT_NO
101	smith	20
102	snehal	25
103	dharmik2	20
104	aman	15

4 rows returned in 0.00 seconds

10) Display name of all employee whose emp_comm contains the non-null values.

QUERY:

select emp_name,emp_comm from employee where emp_comm is not null;

EMP_NAME	EMP_COMM
dharmik	123
smith	500
snehal	0
dharmik2	500
aman	0
amita	0
anamika	50000
anamika	50000

8 rows returned in 0.02 seconds

CSV Export

11) Combine two columns min_sal and max_sal and display it one column using common alias name.

QUERY:

SELECT CONCAT(min_sal, max_sal) AS salary_range

FROM job1;

SALARY_RANGE
150015000
-
400010000
400010000
400010000
400010000
400010000
400010000

8 rows returned in 0.00 seconds

16) Update the value of employee name whose employee number is 103.

QUERY:

insert into sup2 select * from employee; select * from sup2;

S
5

1 row(s) updated.

0.03 seconds

EMP_NO	EMP_NAME	EMP_SAL	EMP_COMM	DEPT_NO	PHONE
13	dharmik	99999	123	2	-
101	smith	800	500	20	-
102	snehal	800	0	25	-
103	dharmik2	800	500	20	-
104	aman	800	0	15	-
105	amita	800	0	10	-
106	anamika	800	50000	30	-
106	anamika	800	50000	30	-

8 rows returned in 0.00 seconds

17) Find out the maximum and minimum salary form job table.

QUERY: select max_sal,min_sal from job1;

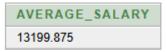
MAX_SAL	MIN_SAL
15000	1500
-	-
10000	4000
10000	4000
10000	4000
10000	4000
10000	4000
10000	4000

8 rows returned in 0.00 seconds

18) Find out the average salary of employee.

QUERY:

SELECT AVG(emp_sal) AS average_salary FROM employee;



1 rows returned in 0.01 seconds

19) Count the total no as well as distinct rows in dept_no column with a condition of salary greater than 1000 of employee.

QUERY:

select count (dept_no) as count, count(*) as count2 from employee where emp_sal > 1000;



20)Display the detail of all employees in ascending order, descending order of their name and no.

QUERY:

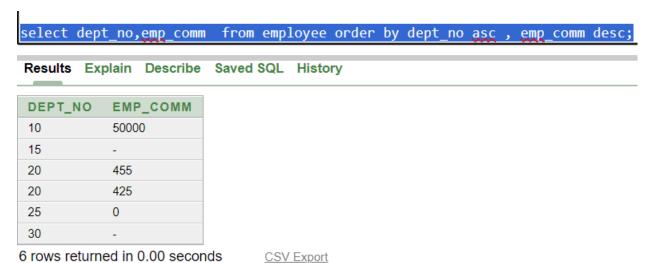
select emp_no from employee order by emp_no desc; select emp_name from employee order by emp_name desc; select emp_name from employee order by emp_name asc; select emp_no from employee order by emp_no asc;



21)Display the dept_no in ascending order and accordingly display emp_comm in descending order.

QUERY:

select dept_no,emp_comm from employee order by dept_no asc , emp_comm desc;



22)Update the value of emp_comm to 500 where dept_no is 20.

QUERY:

update employee set emp_comm=500 where dept_no=20; select * from employee;

Results E	xplain Describ	e Saved SQ	L History		
EMP_NO	EMP_NAME	EMP_SAL	EMP_COMM	DEPT_NO	PHONE
101	smith	800	500	20	-
102	snehal	1600	0	25	-
103	ANITAA	1100	500	20	-
104	aman	3000	-	15	-
105	aman	5000	50000	10	-
106	anamika	2975	-	30	-

6 rows returned in 0.00 seconds CSV Export

23) Display the emp_comm in ascending order with null value first and accordingly sort employee salary in descending order.

QUERY:

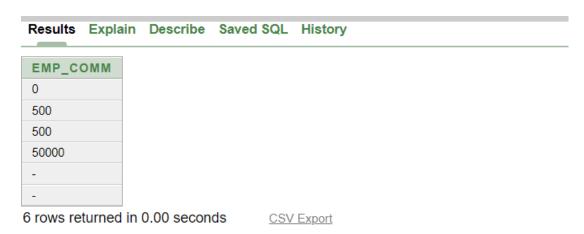
select emp_sal,emp_comm from employee order by emp_comm asc nulls first, emp_sal desc;

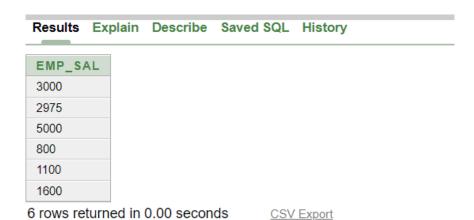


24) Display the emp_comm in ascending order with null value last and accordingly sort emp_no in descending order.

QUERY:

select emp_comm from employee order by emp_comm asc nulls last; select emp_sal from employee order by emp_sal desc;





CONCLUSION:

I have learnt how to delete respective rows/tuples using Delete query. Then I learned how to update data using Update and Set clauses. Then I learned how to sort and display data using "order by", "desc" and "asc" queries. Then I learnt mathematical count, average, min and max queries required to process one column at a time in database. Combining/merging two columns can be done using Concat query. You can also find data from a table between two specific things.