

Database Management Systems(DBMS)

LAB ASSIGNMENT - 6

Submitted By:

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ENC-6

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Q1.) Create a table emp which has the following attributes (empno,ename,job,sal,deptno)

Code –

```
1 BEGIN TRANSACTION;
2
3 create table emp (
4 empno int(8),
5 ename varchar(30),
6 job varchar(50),
7 sal int(10),
8 deptno int(5)
9 );
10 insert into emp values(1,'Deepak'
11 , 'Salesperson',2500,9);
12 insert into emp values(2,'Anuj','Clerk',3500
13 ,10);
14 insert into emp values(3,'Ritik'
15 , 'Salesperson',1900,50);
16 insert into emp values(4,'Rajat','Clerk',2000
17 ,30);
18 insert into emp values(5,'Poorav'
19 , 'Salesperson',1500,20);
20 insert into emp values(6,'Aneesh','Clerk'
21 ,2600,23);
22 insert into emp values(7,'Charlie','Clerk'
23 ,2700,20);
24 insert into emp values(8,'Abhay'
25 , 'Salesperson',2900,30);
26 insert into emp values(9,'Eric','Salesperson'
27 ,1800,20);
28
29 Select * from emp;
```

```
$sqlite3 database.sdb < main.sql
```

```
1|Deepak|Salesperson|2500|9
2|Anuj|Clerk|3500|10
3|Ritik|Salesperson|1900|50
4|Rajat|Clerk|2000|30
5|Poorav|Salesperson|1500|20
6|Aneesh|Clerk|2600|23
7|Charlie|Clerk|2700|20
8|Abhay|Salesperson|2900|30
9|Eric|Salesperson|1800|20
```

- 1 Get employee no and name who work in dept 10.

```
select empno,ename from emp where deptno=10;
```

```
$sqlite3 database.sdb < main.sql  
2|Anuj
```

- 2 Display name of those clerk whose sal>2000.

```
SELECT ename from emp where sal>2000 And  
lower(job)='clerk';|
```

```
$sqlite3 database.sdb < main.sql  
Anuj  
Aneesh  
Charlie
```

- 3 Display name and sal of salesperson and clerk.

```
select ename,sal from emp where lower(job  
)='clerk' or lower(job)='salesperson';|
```

```
$sqlite3 database.sdb < main.sql  
Deepak|2500  
Anuj|3500  
Ritik|1900  
Rajat|2000  
Poorav|1500  
Aneesh|2600  
Charlie|2700  
Abhay|2900  
Eric|1800
```

ename	sal
Deepak	2500
Anuj	3500
Ritik	1900
Rajat	2200
Poorav	1500
Aneesh	1600
Charlie	1700
Abhay	2900
Eric	1800

- 4 Display all details of emp with salary between 2000 and 3000.

```
select * from emp where sal BETWEEN 2000 and 3000;|
```

```
$sqlite3 database.sdb < main.sql
1|Deepak|Salesperson|2500|9
4|Rajat|Clerk|2000|30
6|Aneesh|Clerk|2600|23
7|Charlie|Clerk|2700|20
8|Abhay|Salesperson|2900|30
```

- 5 Display all details of empl whose dept no is 10 20 or 30.

```
select * from emp where deptno=10 or deptno=20 or deptno=30;|
```

```
$sqlite3 database.sdb < main.sql
2|Anuj|Clerk|3500|10
4|Rajat|Clerk|2000|30
5|Poorav|Salesperson|1500|20
7|Charlie|Clerk|2700|20
8|Abhay|Salesperson|2900|30
9|Eric|Salesperson|1800|20
```

- 6 Display dept no and sal in ascending order of dept no and with in each dept no.

```
select deptno,sal from emp ORDER BY deptno ASC, sal DESC ;|
```

```
$sqlite3 database.sdb < main.sql
9|2500
10|3500
20|2700
20|1800
20|1500
23|2600
30|2900
30|2000
50|1900
```

- 7 Disp name of emp starts with 'C'

```
select ename from emp where ename like 'C%';|
```

```
$sqlite3 database.sdb < main.sql
Charlie
```

8 Disp name of emp end with 'C'.

```
select ename from emp where lower(ename) like '%c';
```

```
$sqlite3 database.sdb < main.sql  
Eric
```

9 Disp names having 2 'a' or 'A'.

```
select ename from emp where lower(ename) like '%a%a%';
```

```
$sqlite3 database.sdb < main.sql  
Rajat  
Abhay
```

10 Disp name having second char as 'b' or 'B'.

```
select ename from emp where lower(ename) like '_b%';
```

```
$sqlite3 database.sdb < main.sql  
Abhay
```

11 Disp name whose first or last char is 'a' or 'A'.

```
select ename from emp where ename like 'a%' or '%a';
```

```
$sqlite3 database.sdb < main.sql  
Anuj  
Aneesh  
Abhay
```

Q2.) Write the sql queries for the following:

1 Display the system date:

```
Select sysdate from dual;
```

SYSDATE
18-APR-21

2 Display the current day:

```
Select to_char(sysdate,'day') from dual;
```

TO_CHAR(SYSDATE, 'DAY')
sunday

3 Disp current month and spell out the year:

;

```
Select to_char(sysdate,'month'), to_char(sysdate,'YEAR') from dual;
```

TO_CHAR(SYSDATE, 'MONTH')	TO_CHAR(SYSDATE, 'YEAR')
april	TWENTY TWENTY-ONE

4 Disp spell out current date:

```
select to_char(sysdate,'Ddspth Month Year') from dual  
;|
```

TO_CHAR(SYSDATE, 'DDSPTHMONTH/YEAR')
Eighteenth April Twenty Twenty-One

5 Display date of next Friday:

```
select next_day(sysdate,'Friday') from dual;
```

NEXT_DAY(SYSDATE, 'FRIDAY')
23-APR-21

6 Round the system date on month:

```
select round(sysdate,'month') from dual;
```

ROUND(SYSDATE, 'MONTH')

01-MAY-21

7 Truncate the system date on month:

```
select trunc(sysdate,'month') from dual;
```

TRUNC(SYSDATE, 'MONTH')

01- APR- 21

8 Round system date on year:

```
select round(sysdate,'year') from dual;
```

ROUND(SYSDATE, 'YEAR')

01- JAN- 21

9 Truncate system date on year:

```
select trunc(sysdate,'year') from dual;
```

TRUNC(SYSDATE, 'YEAR')

01- JAN- 21

10 Find the day after 3 days:

```
select to_char(sysdate+3,'day') from dual;
```

TO_CHAR(SYSDATE+3, 'DAY')

wednesday

Q3.) Queries based on Emp Table:

1 Display date of joining column:

```
select doj from emp;
```

doj
2021-02-02
2021-03-15
2021-03-25
2021-04-04
2021-04-12
2021-03-27
2021-03-28
2021-04-10
2021-03-11

2 Display those employees who joined the company on Monday:

```
SELECT * FROM emp WHERE lower(DAYNAME(doj))='monday';
```

empno	ename	job	sal	deptno	doj
2	Anuj	Clerk	3500	10	2021-03-15
5	Poorav	Salesperson	1500	20	2021-04-12

3 Display those employees who join the company this month:

```
SELECT * FROM emp WHERE lower(MONTHNAME(doj))=MONTHNAME(sysdate());
```

Or

Use company;

Select * from emp where to_char(doj,'month')=to_char(sysdate,'month'); (not working on wamp)

empno	ename	job	sal	deptno	doj
4	Rajat	Clerk	2200	30	2021-04-04
5	Poorav	Salesperson	1500	20	2021-04-12
8	Abhay	Salesperson	2900	30	2021-04-10

4 Display those employees who join in last 30 days:

```
SELECT * FROM emp WHERE doj BETWEEN subdate(sysdate(),interval 30 day) AND sysdate();
```

empno	ename	job	sal	deptno	doj
3	Alex	Salesperson	1900	50	2021-03-25
4	Rajat	Clerk	2200	30	2021-04-04
5	Poorav	Salesperson	1500	20	2021-04-12
6	Aneesh	Clerk	1600	23	2021-03-27
7	Charlie	Clerk	1700	20	2021-03-28
8	Abhay	Salesperson	2900	30	2021-04-10

Q3.) Create a table train having 4 columns:

```
create table train( trno integer(8), dod date, tod time, toa time);
```

1 Insert 5 rows in the table:

```
insert into train values(1,'2021-03-04','03:30:00',
                        '09:00:00');
insert into train values(2,'2021-04-03','10:00:00',
                        '21:00:00');
insert into train values(3,'2021-04-18','16:30:00',
                        '09:00:00');
insert into train values(4,'2021-04-23','10:00:00',
                        '21:00:00');
insert into train values(5,'2021-03-24','03:30:00',
                        '09:00:00');
```

2 Display all records:

```
select * from train;
```

trno	dod	tod	toa
1	2021-03-04	03:30:00	09:00:00
2	2021-04-03	10:00:00	21:00:00
3	2021-04-18	16:30:00	09:00:00
4	2021-04-23	10:00:00	21:00:00
5	2021-03-24	03:30:00	09:00:00

3 Display those train which arrived on PM:

```
select * from train where toa>'12:00:00';
```

trno	dod	tod	toa
2	2021-04-03	10:00:00	21:00:00
4	2021-04-23	10:00:00	21:00:00

4 Display train no. which is going to depart in the next hour:

```
select trno from train where dod=curdate() AND (tod BETWEEN curtime() and  
addtime(curtime(),'01:00:00'));
```

trno
3

Q4.)Demonstrate the following functions:

1 Chr(n):

```
select chr(98) from dual;
```

CHR(98)
b

2 Concat(char1,char2):

```
Select concat('abc','def') from dual;
```

CONCAT('ABC','DEF')
abcdef

3 Instr(string,char):

Select instr('devgan','n') from dual;

6

4 Length(n):

Select length(10) from dual;

LENGTH(10)

2

5 Lpad(char1,n[,char2]):

select lpad('1000',10,'*') from dual;

6 Ltrim(string[,char(s)]):

select ltrim('shit','s') from dual;

hit

7 Rpad(char1,n[,char2]):

select rpad(1000,8,'*') from dual;

RPAD(1000,8,'*')

1000*****

8 Rtrim(string,char[s]):

select rtrim ('ball','all') from dual;

rtrim ('ball','all')

b

9 Replace(char,search_string,replacement_string):

select replace('amazing','ing','e') from dual;

```
REPLACE('AMAZING','ING','E')
```

```
amaze
```

10 Substr(string,pos,substring length):

```
select substr('Rakesh',1,3) from dual;
```

```
Rak
```

11 Initcap(char):

```
select initcap('my name is kuvam') from dual;
```

```
INITCAP('MYNAMEISRAKSHIT')
```

```
My Name Is Rakshit
```

12 Lower(string):

```
select lower('RAKSHIT') from dual;
```

```
lower('KUVAM')
```

```
kuvam
```

13 Upper(string):

```
select upper('rakshit') from dual;
```

```
upper('kuvam')
```

```
KUVAM
```

14 Translate(char,from string, to string):

```
select translate('3*[8+10]*(12*9)', '[*]', '()()') from dual;
```

```
TRANSLATE('3*[8+10]*(12*9)', '[*]', '()()')
```

```
3*(8+10)*(12*9)
```

15 Abs(n):

```
select abs(-100.31) from dual;
```

ABS(-100.31)
100.31

16 **Ceil(n):**

```
select ceil(100.31) from dual;
```

CEIL(100.31)
101

17 **Cos(n):**

```
select cos(0) from dual;
```

COS(0)
1

18 **Exp(n):**

```
select exp(2) from dual;
```

EXP(2)
7.3890560989306502272304274605750078132

19 **Floor(n):**

```
select floor(2.93) from dual;
```

FLOOR(2.93)
2

20 **Mod(m,n):**

```
select mod(10,3) from dual;
```

MOD(10, 3)

1

21 **Power(x,y):**

```
select power(10,3) from dual;
```

POWER(10, 3)

1000

22 **Round(x,[y]):**

```
select round(10.3123123123,3) from dual;
```

ROUND(10. 3123123123, 3)

10.312

23 **Sign(n):**

```
select sign(-10.3123123123) from dual;
```

SIGN(- 10. 3123123123)

-1

24 **Sqrt(n):**

```
select sqrt(25) from dual;
```

SQRT(25)

5

25 **Trunc(x,n):**

```
select trunc(25.123123123,4) from dual;
```

TRUNC (25.123123123,4)
25.1231

26 Sysdate:

```
select sysdate from dual;
```

SYSDATE
18- APR- 21

27 Add_months(d,n):

```
select add_months(SYSDATE,1) from dual;
```

ADD_MONTHS(SYSDATE, 1)
18-MAY- 21

28 Last_day():

```
select last_day(sysdate) from dual;
```

LAST_DAY(SYSDATE)
30- APR- 21

29 Months_between(date1,date2):

```
select months_between('21-dec-2021',sysdate) from dual;
```

MONTHS_BETWEEN(' 21-DEC- 2021', SYSDATE)
8.08152255077658303464755077658303464755

30 Next_day(date,char):

```
select next_day('26-april-2021','monday') from dual;
```

NEXT_DAY(' 26-APRIL- 2021', 'MONDAY')
03-MAY- 21

31 Greatest(expr);

```
select greatest(3,10,1,2,5,19,20) from dual;
```

GREATEST(3, 10, 1, 2, 5, 19, 20)
--

20

32 **Least(expr):**

```
select least(3,10,1,2,5,19,20) from dual;
```

LEAST(3, 10, 1, 2, 5, 19, 20)

1

Q6.) Write the sql queries for the following:

1 Display current time in HH:MM:SS

```
select curtime() from dual;
```

curtime()

16:56:14

2 Display salary+commission of emp table:

```
select sal,commission,sal+commission as TOTAL from emp;
```

▼	sal	commission	TOTAL
Delete	2500	200	2700
Delete	3500	500	4000
Delete	1900	700	2600
Delete	2200	200	2400
Delete	1500	900	2400
Delete	1600	650	2250
Delete	1700	150	1850
Delete	2900	250	3150
Delete	1800	450	2250

3 Store any value in hiredate column of table:

```
insert into emp (empno, doj) values(10,'1995-04-04');
```

4 **Display name of employee who joined company in 1985:**

```
select ename from emp where to_char(doj,'year')='1985';
```

	ename
Delete	Charlie

5 **Display name of employees who joined this year:**

```
mp where to_char(doj,'year')=to_char(sysdate(),'year');
```

	ename
Delete	Anuj
Delete	Ritik
Delete	Rajat
Delete	Poorav
Delete	Aneesh
Delete	Abhay
Delete	Eric