



## ASSIGNMENT -5 (Winter Sem 2021-2022)

Course Code: CSE2007

Course Title: DBMS

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Date : 06-05-2022

Student Name: MAJJIGA JASWANTH

Reg No: 20BCD7171

Consider the following schema:

**Table Name: Employee**

Attribute	Data Type
First Name	VARCHAR2(15)
Mid Name	CHAR(2)
Last Name	VARCHAR2(15)
SSN Number	CHAR(9)
Birthday	DATE
Address	VARCHAR2(50)
Sex	CHAR(1)
Salary	NUMBER (7)
Supervisor SSN	CHAR(9)
Department Number	NUMBER (5)

**Employee**

FIRST_NAME	MID_NAME	LAST_NAME	SSN_NUMBER	BIRTHDAY	ADDRESS	SEX	SALARY	SUPERVISOR_SSN	DEPARTMENT_NUMBER
Doug	E	Gilbert	554433221	09-06-60	11 S 59 E, Salt Lake City, UT	M	80000 (null)		3
Joyce	(null)	PAN	543216789	07-02-78	35 S 18 E, Salt Lake City, UT	F	70000 (null)		2
Frankin	T	Wong	333445555	08-12-45	638 Voss, Houston, TX	M	40000554433221		5
Jennifer	S	Wallace	987654321	20-06-31	291 Berry, Bellaire, TX	F	43000554433221		4
Johnny	B	Smith	123456789	09-01-55	731 Fondren, Houston, TX	M	30000333445555		5
Ramesh	K	Narayan	666884444	15-09-52	975 Fire Oak, Humble, TX	M	38000333445555		5
Joyce	A	English	453453453	31-07-62	5631 Rice, Houston, TX	F	25000333445555		5
James	E	Borg	888665555	10-11-27	450 Stone, Houston, TX	M	55000543216789		1
Alicia	J	Zelaya	999887777	19-07-58	3321 Castle, Spring, TX	F	25000987654321		4
Ahmad	V	Jabbar	987987987	29-03-59	980 Dallas, Houston, TX	M	25000987654321		4

```
CREATE TABLE EMPLOYEE_20BCD7171 (FIRST_NAME VARCHAR(15),MID_NAME
CHAR(2),LAST_NAME VARCHAR(15),SSN_NUMBER CHAR(9),
```

```
BIRTHDAY DATE,ADDRESS VARCHAR2(50),SEX CHAR(1),SALARY
NUMBER(7),SUPERVISOR_SSN CHAR(9),DEPARTMENT_NUMBER NUMBER(5));
```

```
CREATE TABLE DEPARTMENT_20BCD7171 (DEPT_NAME VARCHAR2(15),DEPT_NO
NUMBER (5),MANAGERSSN CHAR (9),MANAGESTARTDATE DATE);
```

```
CREATE TABLE PROJECT_20BCD7171(PROJECTNAME
VARCHAR(15),PROJECTNUMBER NUMERIC(5),PROJECTLOCATION
VARCHAR(15),DEPT_NO NUMERIC(5));
```

Table Name: Department

Attribute	Data Type
Department Name	Varchar2(15)
Department Number	Number(5)
ManagerSSN	CHAR(9)
ManageStartDate	DATE

### Department

DEPT_NAME	DEPT_NO	MANAGERSSN	MANAGESTARTDATE
Administration	2	543216789	04-01-99
Headquarter	3	554433221	22-09-55
Finance	4	987654321	01-01-85
Research	5	333445555	22-05-78

Table Name: Project

Attribute	Data Type
Project Name	VARCHAR2(15)
Project Number	NUMBER(5)
Project Location	VARCHAR2(15)
Department Number	NUMBER(5)

Find & Replace: Q| 20BCE7171

Replace All: 20BCE7236

```

1 CREATE TABLE EMPLOYEE_20BCD7171 (FIRST_NAME VARCHAR(15),MID_NAME CHAR(2),LAST_NAME VARCHAR(15),SSN_NUMBER CHAR(9),
2 BIRTHDAY DATE,ADDRESS VARCHAR(50),SEX CHAR(1),SALARY NUMERIC(7),SUPERVISOR_SSN CHAR(9),DEPARTMENT_NUMBER NUMERIC(
3 CREATE TABLE DEPARTMENT_20BCD7171 (DEPT_NAME VARCHAR(15),DEPT_NO NUMERIC(5),MANAGERSSN CHAR(9),MANAGESTARTDATE DA
4 CREATE TABLE PROJECT_20BCD7171(PROJECTNAME VARCHAR(15),PROJECTNUMBER NUMERIC(5),PROJECTLOCATION VARCHAR(15),DEPT_
5
6 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Doug', 'E', 'Gilbert', 554433221, '1960-06-09', '11 S 59 E, Salt Lake City.
7 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Joyce', NULL, 'PAN', 543216789, '1978-02-07', '35 S 18 E, Salt Laku
8 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Frankin', 'T', 'Wong', 333445555, '1945-12-08', '638 Voss, Houston, TX', 'I
9 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Jennifer', 'S', 'Wallace', 987654321, '1931-06-20', '291 Berry, Bellaire, '
10 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Johnny', 'B', 'Smith', 123456789, '1955-01-09', '731 Fondren, Housti
11 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Ramesh', 'K', 'Narayan', 666884444, '1952-09-15', '975 Fire Oak,
12 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Joyce', 'A', 'English', 453453453, '1962-07-31', '5631 Rice, Houston, TX',
13 INSERT INTO EMPLOYEE_20BCD7171 VALUES('James', 'E', 'Borg', 888665555, '1927-11-10', '450 Stone, Houston, TX', 'M
14 INSERT INTO EMPLOYEE_20BCD7171 VALUES('Alicia', 'J', 'Zelava', 999887777, '1958-07-19', '3321 Castle, Spring, TX'

```

Output: Action Output

#	Time	Action	Message
✗	22:30:41	CREATE TABLE EMPLOYEE_20BCD7171 (FIRST_NAME VARCHAR(15),MID_NAME CHA...	Error Code: 1050. Table 'employee_20bcd7171' already exists
✓	22:31:12	DROP TABLE 'world'.employee_20bcd7171'	0 row(s) affected
✓	22:31:18	DROP TABLE 'world'.project_20bcd7171'	0 row(s) affected
✓	22:31:24	CREATE TABLE EMPLOYEE_20BCD7171 (FIRST_NAME VARCHAR(15),MID_NAME CHA...	0 row(s) affected
✓	22:31:25	CREATE TABLE DEPARTMENT_20BCD7171 (DEPT_NAME VARCHAR(15),DEPT_NO NU...	0 row(s) affected

### Project

PROJECTNAME	PROJECTNUMBER	PROJECTLOCATION	DEPT_NO
ProjectA	3388	Houston	1
ProjectB	1945	Salt Lake City	3
ProjectC	6688	Houston	5
ProjectD	2423	Bellaire	4
ProjectE	7745	Sugarland	5
ProjectF	1566	Salt Lake City	3
ProjectG	1234	New York	2
ProjectH	3467	Stafford	4
ProjectI	4345	Chicago	1
ProjectJ	2212	San Francisco	2

INSERT INTO EMPLOYEE\_20BCD7171 VALUES('Doug', 'E', 'Gilbert', 554433221, '1960-06-09', '11 S 59 E, Salt Lake City, UT', 'M', 80000, NULL, 3);

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Joyce', NULL, 'PAN', 543216789,
'1978-02-07', '35 S 18 E, Salt LakeCity, UT', 'F', 70000, NULL, 2);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Frankin', 'T', 'Wong', 333445555,
'1945-12-08', '638 Voss, Houston, TX', 'M', 40000, 554433221, 5);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Jennifer', 'S', 'Wallace', 987654321,
'1931-06-20', '291 Berry, Bellaire, TX', 'F', 43000, 554433221, 4);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Johny', 'B', 'Smith', 123456789,
'1955-01-09', '731 Fondren, Houston, TX', 'M', 30000, 333445555, 5);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Ramesh', 'K', 'Narayan',
666884444, '1952-09-15', '975 Fire Oak, Humble, TX', 'M', 38000, 333445555,
5);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Joyce', 'A', 'English', 453453453,
'1962-07-31', '5631 Rice, Houston, TX', 'F', 25000, 333445555, 5);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('James', 'E', 'Borg', 888665555,
'1927-11-10', '450 Stone, Houston, TX', 'M', 55000, 543216789, 1);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Alicia', 'J', 'Zelaya', 999887777,
'1958-07-19', '3321 Castle, Spring, TX', 'F', 25000, 987654321, 4);
```

```
INSERT INTO EMPLOYEE_20BCD7171 VALUES('Ahmad', 'V', 'Jabbar', 987987987,
'1959-03-29', '980 Dallas, Houston, TX', 'M', 25000, 987654321, 4);
```

```
INSERT INTO DEPARTMENT_20BCD7171 VALUES('Administration', 2, 543216789,
'1999-01-04');
```

```
INSERT INTO DEPARTMENT_20BCD7171 VALUES('Headquarter', 3, 554433221,
'1955-09-22');
```

```
INSERT INTO DEPARTMENT_20BCD7171 VALUES('Finance', 4, 987654321, '1985-
01-01');
```

```
INSERT INTO DEPARTMENT_20BCD7171 VALUES('Research', 5, 333445555, '1978-05-22');
```

LAB 04\* x SQL File 3\*

Limit to 1000 rows

```

13 • INSERT INTO EMPLOYEE_20BCD7171 VALUES('James', 'E', 'Borg', 888665555, '1927-11-10', '450 Stone, Houston, TX', 'M
14 • INSERT INTO EMPLOYEE_20BCD7171 VALUES('Alicia', 'J', 'Zelaya', 999887777, '1958-07-19', '3321 Castle, Spring, TX'
15 • INSERT INTO EMPLOYEE_20BCD7171 VALUES('Ahmad', 'V', 'Jabbar', 987987987, '1959-03-29', '980 Dallas, Houston, TX',
16
17 • INSERT INTO DEPARTMENT_20BCD7171 VALUES('Administration', 2, 543216789, '1999-01-04');
18 • INSERT INTO DEPARTMENT_20BCD7171 VALUES('Headquarter', 3, 554433221, '1955-09-22');
19 • INSERT INTO DEPARTMENT_20BCD7171 VALUES('Finance', 4, 987654321, '1985-01-01');
20 • INSERT INTO DEPARTMENT_20BCD7171 VALUES('Research', 5, 333445555, '1978-05-22');
21
22 • INSERT INTO PROJECT_20BCD7171 VALUES('ProjectA', 3388, 'Houston', 1 );
23 • INSERT INTO PROJECT_20BCD7171 VALUES('ProjectB', 1945, 'Salt Lake City', 3 );
24 • INSERT INTO PROJECT_20BCD7171 VALUES('ProjectC', 6688, 'Houston', 5 );
25 • INSERT INTO PROJECT_20BCD7171 VALUES('ProjectD', 2423, 'Bellaire', 4 );

```

Output

Action Output

#	Time	Action	Message
✓ 18	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectC', 6688, 'Houston', 5)	1 row(s) affected
✓ 19	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectD', 2423, 'Bellaire', 4)	1 row(s) affected
✓ 20	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectE', 7745, 'Sugarland', 5)	1 row(s) affected
✓ 21	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectF', 1566, 'Salt Lake City', 3)	1 row(s) affected
✓ 22	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectG', 1234, 'New York', 2)	1 row(s) affected
✓ 23	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectH', 3467, 'Stafford', 4)	1 row(s) affected
✓ 24	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectI', 4345, 'Chicago', 1)	1 row(s) affected
✓ 25	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectJ', 2212, 'San Francisco', 2)	1 row(s) affected

## Questions

1. Find the female employee names having salary greater than Rs.25000.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171
WHERE SEX='F' AND SALARY>25000;
```

32

33 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SEX='F' AND SALARY>25000;`  
 34 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SALARY BETWEEN 30000 AND 70000;`

Result Grid Filter Rows:  Export: Wrap Cell Content:

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Joyce	NULL	PAN
	Jennifer	S	Wallace

EMPLOYEE\_20BCD7171 2 x

Output

Action Output

#	Time	Action	Message
✓ 19	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectD', 2423, 'Bellaire', 4 )	1 row(s) affected
✓ 20	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectE', 7745, 'Sugarland', 5 )	1 row(s) affected
✓ 21	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectF', 1566, 'Salt Lake City', 3 )	1 row(s) affected
✓ 22	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectG', 1234, 'New York', 2 )	1 row(s) affected
✓ 23	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectH', 3467, 'Stafford', 4 )	1 row(s) affected
✓ 24	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectI', 4345, 'Chicago', 1 )	1 row(s) affected
✓ 25	22:43:02	INSERT INTO PROJECT_20BCD7171 VALUES('ProjectJ', 2212, 'San Francisco', 2)	1 row(s) affected
✓ 26	22:44:03	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned

2.Find the employee names whose salary falls in the range of 30000 and 70000.

`SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171  
WHERE SALARY > 30000 AND SALARY <70000;`

34 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE SALARY BETWEEN 30000 AND 70000;`  
 35 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE SUPERVISOR_SSN IS NULL;`  
 36 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE BIRTHDAY<'1962-01-01';`  
 37 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE LENGTH(FIRST_NAME)=5 AND FIRST_NAME`  
 38  
 39 • `SELECT * FROM EMPLOYEE_20BCE7236 WHERE MID_NAME IS NULL;`

Result Grid Filter Rows:  Export: Wrap Cell Content:

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Joyce	NULL	PAN
	Frankin	T	Wong
	Jennifer	S	Wallace
	Johny	B	Smith
	Ramesh	K	Narayan
	James	E	Borg

3. Find all the employees who have no supervisor.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171  
WHERE SUPERVISOR_SSN IS NULL;
```

35 • `SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SUPERVISOR_SSN IS NULL;`

36 • `SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE BIRTHDAY < '1962-01-01';`

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Doug	E	Gilbert
	Joyce	NULL	PAN

EMPLOYEE\_20BCD7171 7 x

Output

Action Output

#	Time	Action	Message
✓ 1	22:44:48	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	6 row(s) returned
✓ 2	22:45:31	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned

4. Get the employee names whose birthday is not later than 1962.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171  
WHERE BIRTHDAY < '01-JAN-1962';
```



```

36 • SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE BIRTHDAY<'1962-01-01';
37 • SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE LENGTH(FIRST_NAME)=5 AND FIRST_NAME LIKE 'J%';
38
39 • SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL;
40 • SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SEX = 'M' AND ADDRESS LIKE ('%HOUSTON%');

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Doug	E	Gilbert
	Franklin	T	Wong
	Jennifer	S	Wallace
	Johnny	B	Smith
	Ramesh	K	Narayan

EMPLOYEE\_20BCD7171 6 ×

Output

Action Output

#	Time	Action	Message
✓ 1	22:44:48	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	6 row(s) returned
✓ 2	22:45:31	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	8 row(s) returned

5.Retrieve the employee names whose first name start with 'J' and have 5 characters intotal.

```

SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171
WHERE LENGTH(FIRST_NAME)=5 AND FIRST_NAME LIKE 'J%_';

```

```

37 • SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE LENGTH(FIRST_NAME)=5 AND FIRST_NAME LIKE 'J%_';
38
39 • SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL;
40 • SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SEX = 'M' AND ADDRESS LIKE ('%HOUSTON%');

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Joyce	NULL	PAN
	Johnny	B	Smith
	Joyce	A	English
	James	E	Borg

EMPLOYEE\_20BCD7171 5 ×

Output

Action Output

#	Time	Action	Message
✓ 1	22:44:48	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	6 row(s) returned
✓ 2	22:45:31	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned

6. Find the employee details whose middle initial is null.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171  
WHERE MID_NAME IS NULL;
```

The screenshot displays a database management interface. At the top, a SQL query is entered in a text area: `SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL;`. Below the query, a 'Result Grid' is shown with columns: FIRST\_NAME, MID\_NAME, LAST\_NAME, SSN\_NUMBER, BIRTHDAY, ADDRESS, SEX, SALARY, SUPERVISOR\_SSN, and DEPARTMENT. The first row of data shows 'Joyce' as the first name, 'NULL' as the middle name, and 'PAN' as the last name. Below the result grid, an 'Output' section is visible, showing a list of actions and their results. The actions are SQL queries, and the results indicate the number of rows returned for each query.

#	Time	Action	Message
✓ 1	22:44:48	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	6 row(s) returned
✓ 2	22:45:31	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned

7. Get the male employee details whose address contains sub string 'Houston'.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171  
WHERE SEX = 'M' AND ADDRESS LIKE ('%HOUSTON%');
```

The screenshot shows a database management tool interface. At the top, a SQL query is entered in a text area: `SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SEX = 'M' AND ADDRESS LIKE ('%HOUSTON%');`. Below the query area, there is a 'Result Grid' tab. The grid displays the results of the query in a table with three columns: FIRST\_NAME, MID\_NAME, and LAST\_NAME. The data rows are: Frankin, T, Wong; Johnny, B, Smith; James, E, Borg; and Ahmad, V, Jabbar. Below the result grid, there is an 'Output' section with a tab labeled 'Action Output'. This tab shows a log of database actions, including the execution of the query and the number of rows returned.

#	Time	Action	Message
1	22:44:48	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	6 row(s) returned
2	22:45:31	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
3	22:46:07	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned
4	22:47:49	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	8 row(s) returned
5	22:49:13	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	2 row(s) returned
6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
7	22:50:39	SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE...	4 row(s) returned

8. Display the department names that ends with 'e'.

```
SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171  
WHERE DEPT_NAME LIKE '_e%';
```

40 • SELECT FIRST\_NAME,MID\_NAME,LAST\_NAME FROM EMPLOYEE\_20BCD7171 WHERE DEPT\_NAME = 'e' AND ADDRESS LIKE 'e';

41 • SELECT DEPT\_NAME FROM DEPARTMENT\_20BCD7171 WHERE DEPT\_NAME LIKE 'e%';

42 • SELECT FIRST\_NAME,MID\_NAME,LAST\_NAME FROM EMPLOYEE\_20BCD7171 WHERE SUPERVISOR\_SSN = 554433221 OR SUPERVISOR\_SSN = 333445555;

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

DEPT_NAME
Headquarter
Research

DEPARTMENT 20BCD7171 10 x

Output

Action Output

#	Time	Action	Message
✓ 1	22:44:48	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	6 row(s) returned
✓ 2	22:45:31	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHER...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE 'e%';	2 row(s) returned

9.Display the names of all the employees having supervisor with any of the followingSSN 554433221, 333445555.

```
SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171
WHERE SUPERVISOR_SSN = 554433221 OR SUPERVISOR_SSN = 333445555 ;
```

42 • `SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHERE SUPERVISOR_SSN = 554433221 OR SUPERVISOR_SSN = 554433221`

43 • `SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7171;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	FIRST_NAME	MID_NAME	LAST_NAME
▶	Frankin	T	Wong
	Jennifer	S	Wallace
	Johny	B	Smith
	Ramesh	K	Narayan
	Joyce	A	English

EMPLOYEE\_20BCD7171 11 x

Output

Action Output

#	Time	Action	Message
✓ 2	22:45:31	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned
✓ 3	22:46:07	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE '...	2 row(s) returned
✓ 9	22:52:02	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	5 row(s) returned

10. Display all the department names in upper case and lower case.

`SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM  
DEPARTMENT_20BCD7171;`

43 • `SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7171;`

44 • `SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM DEPARTMENT_20BCD7171;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	UPPER(DEPT_NAME)	LOWER(DEPT_NAME)
▶	ADMINISTRATION	administration
	HEADQUARTER	headquarter
	FINANCE	finance
	RESEARCH	research

Result 12 x

Output

Action Output

#	Time	Action	Message
✓ 3	22:46:07	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 4	22:47:49	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE '...	2 row(s) returned
✓ 9	22:52:02	SELECT FIRST_NAME,MID_NAME, LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	5 row(s) returned
✓ 10	22:52:31	SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7...	4 row(s) returned

11.Display the first four characters and last four characters of the department names using substring function.

```
SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM  
DEPARTMENT_20BCD7171;
```

```
44 • SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM DEPARTMENT_20BCD7171;  
45 • SELECT SUBSTR(ADDRESS,5,11) FROM EMPLOYEE_20BCD7171;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	SUBSTR(DEPT_NAME,1,4)	SUBSTR(DEPT_NAME,-4)
▶ Admin	tion	
Head	rter	
Finance	ance	
Research	arch	

Result 13 ×

Output

Action Output

#	Time	Action	Message
✓ 4	22:47:49	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	8 row(s) returned
✓ 5	22:49:13	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE '...	2 row(s) returned
✓ 9	22:52:02	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	5 row(s) returned
✓ 10	22:52:31	SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7...	4 row(s) returned
✓ 11	22:53:43	SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM DEPARTMENT_...	4 row(s) returned

12.Display the substring of the address (starting from 5th position to 11th position) of all employees.

```
SELECT SUBSTR(ADDRESS,5,11) FROM EMPLOYEE_20BCD7171;
```

45 • `SELECT SUBSTR(ADDRESS,5,11) FROM EMPLOYEE_20BCD7171;`  
 46 • `SELECT MANAGESTARTDATE,DATE_ADD(MANAGESTARTDATE, INTERVAL 2 MONTH) FROM DEPARTMENT_20BCE7236;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	SUBSTR(ADDRESS,5,11)
▶	59 E, Salt
	18 E, Sa
	Voss, Houst
	Berry, Bell
	Fondren,

Result 14 ×

Output

Action Output

#	Time	Action	Message
✓ 5	22:49:13	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	2 row(s) returned
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE '...	2 row(s) returned
✓ 9	22:52:02	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	5 row(s) returned
✓ 10	22:52:31	SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7...	4 row(s) returned
✓ 11	22:53:43	SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM DEPARTMENT_...	4 row(s) returned
✓ 12	22:54:17	SELECT SUBSTR(ADDRESS,5,11) FROM EMPLOYEE_20BCD7171 LIMIT 0, 1000	10 row(s) returned

13.Display the ManagStartDateon adding two months to it.

`SELECT ADD_MONTHS(MANAGESTARTDATE, 2) FROM DEPARTMENT_20BCD7171;`

46 • `SELECT MANAGESTARTDATE,DATE_ADD(MANAGESTARTDATE, INTERVAL 2 MONTH) FROM DEPARTMENT_20BCE7236;`  
 47

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	MANAGESTARTDATE	DATE_ADD(MANAGESTARTDATE, INTERVAL 2 MONTH)
▶	1999-01-04	1999-03-04
	1955-09-22	1955-11-22
	1985-01-01	1985-03-01
	1978-05-22	1978-07-22

Result 15 ×

Output

Action Output

#	Time	Action	Message
✓ 6	22:50:11	SELECT * FROM EMPLOYEE_20BCD7171 WHERE MID_NAME IS NULL LIMIT 0, 1000	1 row(s) returned
✓ 7	22:50:39	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	4 row(s) returned
✓ 8	22:51:06	SELECT DEPT_NAME FROM DEPARTMENT_20BCD7171 WHERE DEPT_NAME LIKE '...	2 row(s) returned
✓ 9	22:52:02	SELECT FIRST_NAME,MID_NAME,LAST_NAME FROM EMPLOYEE_20BCD7171 WHE...	5 row(s) returned
✓ 10	22:52:31	SELECT UPPER(DEPT_NAME),LOWER(DEPT_NAME) FROM DEPARTMENT_20BCD7...	4 row(s) returned
✓ 11	22:53:43	SELECT SUBSTR(DEPT_NAME,1,4),SUBSTR(DEPT_NAME,-4) FROM DEPARTMENT_...	4 row(s) returned
✓ 12	22:54:17	SELECT SUBSTR(ADDRESS,5,11) FROM EMPLOYEE_20BCD7171 LIMIT 0, 1000	10 row(s) returned
✓ 13	22:54:52	SELECT MANAGESTARTDATE,DATE_ADD(MANAGESTARTDATE, INTERVAL 2 MON...	4 row(s) returned