



*School Of Computer Science and  
Engineering*

**Aim:** To study Data Definition and Data Manipulation commands.

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)

**Table Name: Department**

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

**Table Name: Project**

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

# Questions

## 1. Create the tables Employee, department, and Project.

Sol)

```
CREATE TABLE EMPLOYEE_20BCE7236 (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_20BCE7236 (DEPT_NAME VARCHAR2(15),DEPT_NO NUMBER  
(5),MANAGERSSN CHAR (9),MANAGESTARTDATE DATE);  
CREATE TABLE PROJECT_20BCE7236(PROJECTNAME VARCHAR2(15),PROJECTNUMBER  
NUMBER(5),PROJECTLOCATION VARCHAR2(15),DEPT_NO NUMBER(5));
```

Photos

The first screenshot shows the SQL script for creating the three tables and three SELECT statements to verify their creation. The table list at the bottom includes FIRST\_NAME, MID\_NAME, LAST\_NAME, SSN\_NUMBER, BIRTHDAY, ADDRESS, SEX, SALARY, SUPERVISOR\_SSN, and DEPARTMENT\_NUMBER.

The second screenshot shows the same SQL script with the SELECT statements highlighted. The table list at the bottom includes DEPT\_NAME, DEPT\_NO, MANAGERSSN, and MANAGESTARTDATE.

The third screenshot shows the same SQL script with the SELECT statements highlighted. The table list at the bottom includes PROJECTNAME, PROJECTNUMBER, PROJECTLOCATION, and DEPT\_NO.

2. Insert the data given in employee, department and project tables as given below:

### 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	40000 554433221		5
Jennifer	S	Wallace	987654321	20-06-31	291 Berry, Bellaire, TX	F	43000 554433221		4
Johnny	B	Smith	123456789	09-01-55	731 Fondren, Houston, TX	M	30000 333445555		5
Ramesh	K	Narayan	666884444	15-09-52	975 Fire Oak, Humble, TX	M	38000 333445555		5
Joyce	A	English	453453453	31-07-62	5631 Rice, Houston, TX	F	25000 333445555		5
James	E	Borg	888665555	10-11-27	450 Stone, Houston, TX	M	55000 543216789		1
Alicia	J	Zelaya	999887777	19-07-58	3321 Castle, Spring, TX	F	25000 987654321		4
Ahmad	V	Jabbar	987987987	29-03-59	980 Dallas, Houston, TX	M	25000 987654321		4

### 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

### 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

### //FOR TABLE EMPLOYEE

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Doug', 'E', 'Gilbert', 554433221, '09-JUN-60', '11 S 59 E, Salt Lake City, UT', 'M', 80000, NULL, 3);

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Joyce', NULL, 'PAN', 543216789, '07-FEB-78', '35 S 18 E, Salt Lake City, UT', 'F', 70000, NULL, 2);

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Frankin', 'T', 'Wong', 333445555, '08-DEC-45', '638 Voss, Houston, TX', 'M', 40000, 554433221, 5);

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Jennifer', 'S', 'Wallace', 987654321, '20-JUN-31', '291 Berry, Bellaire, TX', 'F', 43000, 554433221, 4);

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Johnny', 'B', 'Smith', 123456789, '09-JAN-55', '731 Fondren, Houston, TX', 'M', 30000, 333445555, 5);

INSERT INTO EMPLOYEE\_20BCE7236 VALUES('Ramesh', 'K', 'Narayan', 666884444, '15-

```
SEP-52', '975 Fire Oak, Humble, TX', 'M', 38000, 333445555, 5);  
INSERT INTO EMPLOYEE_20BCE7236 VALUES('Joyce', 'A', 'English', 453453453  
INSERT INTO EMPLOYEE_20BCE7236 VALUES('James', 'E', 'Borg', 888665555, '10-NOV-27',  
'450 Stone, Houston, TX', 'M', 55000, 543216789, 1);  
INSERT INTO EMPLOYEE_20BCE7236 VALUES('Alicia', 'J', 'Zelaya', 999887777, '19-JUL-58',  
'3321 Castle, Spring, TX', 'F', 25000, 987654321, 4);  
INSERT INTO EMPLOYEE_20BCE7236 VALUES('Ahmad', 'V', 'Jabbar', 987987987, '29-MAR-  
59', '980 Dallas, Houston, TX', 'M', 25000, 987654321, 4);
```

**//FOR TABLE DEPARTMENT**

```
INSERT INTO DEPARTMENT_20BCE7236 VALUES('Administration', 2,  
543216789, '04-JAN-99');  
INSERT INTO DEPARTMENT_20BCE7236 VALUES('Headquarter', 3,  
554433221, '22-SEP-55');  
INSERT INTO DEPARTMENT_20BCE7236 VALUES('Finance', 4, 987654321,  
'01-JAN-85');  
INSERT INTO DEPARTMENT_20BCE7236 VALUES('Research', 5, 333445555,  
'22-MAY-78');
```

**//FOR TABLE PROJECT**

```
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectA', 3388,  
'Houston', 1 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectB', 1945,  
'Salt Lake City', 3 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectC', 6688,  
'Houston', 5 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectD', 2423,  
'Bellaire', 4 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectE', 7745,  
'Sugarland', 5 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectF', 1566,  
'Salt Lake City', 3 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectG', 1234,  
'New York', 2 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectH', 3467,  
'Stafford', 4 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectI', 4345,  
'Chicago', 1 );  
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectJ', 2212, 'San  
Francisco', 2 );
```

### 3. Retrieve all the employees' information who are working in department number 1.

**SELECT \* FROM EMPLOYEE\_20BCE7236 WHERE DEPARTMENT\_NUMBER=1;**

```

INSERT INTO PROJECT_20BCE7236 VALUES('ProjectF', 1566, 'Salt Lake City', 3 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectG', 1234, 'New York', 2 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectH', 3467, 'Stafford', 4 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectI', 4345, 'Chicago', 1 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectJ', 2212, 'San Francisco', 2 );
SELECT * FROM EMPLOYEE_20BCE7236 WHERE DEPARTMENT_NUMBER=1;
SELECT FIRST_NAME, MID_NAME, LAST_NAME, SSN_NUMBER, SUPERVISOR_SSN FROM EMPLOYEE_20BCE7236;
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE BIRTHDAY='29-MAR-1959';
SELECT DISTINCT SALARY FROM EMPLOYEE_20BCE7236;
SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT_20BCE7236 WHERE DEPT_NAME='Research';

```

Script Output x Query Result x Query Result 1 x Query Result 2 x Query Result 3 x Query Result 4 x Query...

SQL | All Rows Fetched: 1 in 0.004 seconds

	FIRST_NAME	MID_NAME	LAST_NAME	SSN_NUMBER	BIRTHDAY	ADDRESS	SEX	SALARY	SUPERVISOR_SSN	DEPARTMEN
1	James	E	Borg	888665555	10-11-27	450 Stone, Houston, TX M		55000	543216789	

### 4. Get Employee name along with his SSN and Supervisor SSN

**SELECT FIRST\_NAME, MID\_NAME, LAST\_NAME, SSN\_NUMBER, SUPERVISOR\_SSN FROM EMPLOYEE\_20BCE7236;**

Worksheet Query Builder

```

INSERT INTO PROJECT_20BCE7236 VALUES('ProjectF', 1566, 'Salt Lake City', 3 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectG', 1234, 'New York', 2 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectH', 3467, 'Stafford', 4 );
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectI', 4345, 'Chicago', 1 );

```

Script Output x Query Result x Query Result 1 x Query Result 2 x Query Result 3 x Query Result

SQL | All Rows Fetched: 10 in 0.002 seconds

	FIRST_NAME	MID_NAME	LAST_NAME	SSN_NUMBER	SUPERVISOR_SSN
1	Doug	E	Gilbert	554433221	(null)
2	Joyce	(null)	PAN	543216789	(null)
3	Frankin	T	Wong	333445555	554433221
4	Jennifer	S	Wallace	987654321	554433221
5	Johny	B	Smith	123456789	333445555
6	Ramesh	K	Narayan	666884444	333445555
7	Joyce	A	English	453453453	333445555
8	James	E	Borg	888665555	543216789
9	Alicia	J	Zelaya	999887777	987654321
10	Ahmad	V	Jabbar	987987987	987654321

## 5. Retrieve the employee names whose bdate is '29-MAR-1959'.

```
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE BIRTHDAY='29-MAR-1959';
```

```
INSERT INTO DEPARTMENT_20BCE7236 VALUES('Research', 5, 333445555, '22-MAY-78');
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectA', 3388, 'Houston', 1);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectB', 1945, 'Salt Lake City', 3);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectC', 6688, 'Houston', 5);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectD', 2423, 'Bellaire', 4);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectE', 7745, 'Sugarland', 5);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectF', 1566, 'Salt Lake City', 3);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectG', 1234, 'New York', 2);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectH', 3467, 'Stafford', 4);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectI', 4345, 'Chicago', 1);
INSERT INTO PROJECT_20BCE7236 VALUES('ProjectJ', 2212, 'San Francisco', 2);
SELECT * FROM EMPLOYEE_20BCE7236 WHERE DEPARTMENT_NUMBER=1;
SELECT FIRST_NAME, MID_NAME, LAST_NAME, SSN_NUMBER, SUPERVISOR_SSN FROM EMPLOYEE_20BCE7236;
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE BIRTHDAY='29-MAR-1959';
SELECT DISTINCT SALARY FROM EMPLOYEE_20BCE7236;
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Result 4 x | Query...

SQL | All Rows Fetched: 1 in 0.002 seconds

	FIRST_NAME	MID_NAME	LAST_NAME
1	Ahmad	V	Jabbar

## 6. Get salaries of the employees without duplications.

```
SELECT DISTINCT SALARY FROM EMPLOYEE_20BCE7236;
```

```
SELECT * FROM EMPLOYEE_20BCE7236 WHERE DEPARTMENT_NUMBER=1;
SELECT FIRST_NAME, MID_NAME, LAST_NAME, SSN_NUMBER, SUPERVISOR_SSN FROM EMPLOYEE_20BCE7236;
SELECT FIRST_NAME, MID_NAME, LAST_NAME FROM EMPLOYEE_20BCE7236 WHERE BIRTHDAY='29-MAR-1959';
SELECT DISTINCT SALARY FROM EMPLOYEE_20BCE7236;
SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT_20BCE7236 WHERE DEPT_NAME='P
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query...

SQL | All Rows Fetched: 8 in 0.004 seconds

	SALARY
1	55000
2	70000
3	80000
4	38000
5	30000
6	40000
7	43000
8	25000



```
SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT_20BCE7236 WHERE DEPT_NAME='Research';
```

```
SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT_20BCE7236 WHERE DEPT_NAME='Research';
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Result 4 x | Query Result 5 x

SQL | All Rows Fetched: 1 in 0.002 seconds

	MANAGERSSN	MANAGESTARTDATE
1	333445555	22-05-78

```
UPDATE EMPLOYEE_20BCE7236 SET DEPARTMENT_NUMBER=3 WHERE FIRST_NAME='Joyce';
```

```
UPDATE EMPLOYEE_20BCE7236 SET DEPARTMENT_NUMBER=3 WHERE FIRST_NAME='Joyce';
```

FIRST_NAME	MID_NAME	LAST_NAME	SSN_NUMBER	BIRTHDAY	ADDRESS	SEX	SALARY	SUPERVISOR_SSN	DEPARTMENT_NUMBER
1 Doug	E	Gilbert	554433221	09-06-60	11 S 59 E, Salt Lake City, UT	M	80000 (null)		3
2 Joyce	(null)	PAN	543216789	07-02-78	35 S 18 E, Salt Lake City, UT	F	70000 (null)		3
3 Frankin	T	Wong	333445555	08-12-45	638 Voss, Houston, TX	M	40000	554433221	5
4 Jennifer	S	Wallace	987654321	20-06-31	291 Berry, Bellaire, TX	F	43000	554433221	4
5 Johny	B	Smith	123456789	09-01-55	731 Fondren, Houston, TX	M	30000	333445555	5
6 Ramesh	K	Narayan	666884444	15-09-52	975 Fire Oak, Humble, TX	M	38000	333445555	5
7 Joyce	A	English	453453453	31-07-62	5631 Rice, Houston, TX	F	25000	333445555	3
8 James	E	Borg	888665555	10-11-27	450 Stone, Houston, TX	M	55000	543216789	1
9 Alicia	J	Zelaya	999887777	19-07-58	3321 Castle, Spring, TX	F	25000	987654321	4
10 Ahmad	V	Jabbar	987987987	29-03-59	980 Dallas, Houston, TX	M	25000	987654321	4

```
ALTER TABLE DEPARTMENT_20BCE7236 ADD CONTACT_NUMBER NUMBER(10);
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2;
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3;
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4;
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5;
```

<pre> SELECT * FROM EMPLOYEE_20BCE7236 ; ALTER TABLE DEPARTMENT_20BCE7236 ADD CONTACT_NUMBER NUMBER(10); UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5; SELECT * FROM DEPARTMENT_20BCE7236 ; ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11); ALTER TABLE DEPARTMENT_20BCE7236 RENAME COLUMN CONTACT_NUMBER TO MOBILENO; SELECT * FROM DEPARTMENT_20BCE7236 ; </pre>				
<p>Script Output x   Query Result x   Query Result 1 x   Query Result 2 x   Query Result 3 x   Query Result 4 x   Query Result 5 x</p> <p>SQL   All Rows Fetched: 4 in 0.009 seconds</p>				
DEPT_NAME	DEPT_NO	MANAGERSSN	MANAGESTARTDATE	CONTACT_NUMBER
1 Administration	2	543216789	04-JAN-99	1234567890
2 Headquarter	3	554433221	22-SEP-55	1234567890
3 Finance	4	987654321	01-JAN-85	1234567890
4 Research	5	333445555	22-MAY-78	1234567890

## 10. Change table department by modifying the size of field ContactNo.

```

SELECT * FROM DEPARTMENT_20BCE7236 ;
ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11);

```

<pre> UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5; SELECT * FROM DEPARTMENT_20BCE7236 ; ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11); ALTER TABLE DEPARTMENT_20BCE7236 RENAME COLUMN CONTACT_NUMBER TO MOBILENO; SELECT * FROM DEPARTMENT_20BCE7236 ; ALTER TABLE DEPARTMENT_20BCE7236 DROP COLUMN MobileNo; SELECT * FROM DEPARTMENT_20BCE7236 ; ALTER TABLE DEPARTMENT_20BCE7236 ADD CONTACT_NUMBER NUMBER(10); UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4; UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5; ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11); </pre>				
<p>Script Output x   Query Result x   Query Result 1 x   Query Result 2 x   Query Result 3 x   Query Result 4 x   Query Result 5 x</p> <p>SQL   All Rows Fetched: 4 in 0.008 seconds</p>				
DEPT_NAME	DEPT_NO	MANAGERSSN	MANAGESTARTDATE	MOBI...
1 Administration	2	543216789	04-JAN-99	1234567890
2 Headquarter	3	554433221	22-SEP-55	1234567890
3 Finance	4	987654321	01-JAN-85	1234567890
4 Research	5	333445555	22-MAY-78	1234567890



## 11. Modify the field name ContactNo of departments table to MobileNo.

```
ALTER TABLE DEPARTMENT_20BCE7236 RENAME COLUMN CONTACT_NUMBER TO MOBILENO;  
SELECT * FROM DEPARTMENT_20BCE7236 ;
```

```
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11);  
ALTER TABLE DEPARTMENT_20BCE7236 RENAME COLUMN CONTACT_NUMBER TO MOBILENO;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
ALTER TABLE DEPARTMENT_20BCE7236 DROP COLUMN MobileNo;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
ALTER TABLE DEPARTMENT_20BCE7236 ADD CONTACT_NUMBER NUMBER(10);  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5;  
ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11);
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Result 4 x | Query Result 5 x

SQL | All Rows Fetched: 4 in 0.008 seconds

DEPT_NAME	DEPT_NO	MANAGERSSN	MANAGESTARTDATE	MOBILENO
1 Administration	2	543216789	04-JAN-99	1234567890
2 Headquarter	3	554433221	22-SEP-55	1234567890
3 Finance	4	987654321	01-JAN-85	1234567890
4 Research	5	333445555	22-MAY-78	1234567890

## 12. Alter Table department by removing column MobileNo.

```
ALTER TABLE DEPARTMENT_20BCE7236 DROP COLUMN MobileNo;  
SELECT * FROM DEPARTMENT_20BCE7236 ;
```

```
SELECT * FROM DEPARTMENT_20BCE7236 ;  
ALTER TABLE DEPARTMENT_20BCE7236 DROP COLUMN MobileNo;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
ALTER TABLE DEPARTMENT_20BCE7236 ADD CONTACT_NUMBER NUMBER(10);  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=2;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=3;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=4;  
UPDATE DEPARTMENT_20BCE7236 SET CONTACT_NUMBER=1234567890 WHERE DEPT_NO=5;  
ALTER TABLE DEPARTMENT_20BCE7236 MODIFY CONTACT_NUMBER NUMBER(11);
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Result 4 x | Query Result 5 x

SQL | All Rows Fetched: 4 in 0.012 seconds

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

### 13. Create a table COPYOFDEPT as a copy of the table DEPARTMENT.

```
CREATE TABLE COPYOFDEPT_20BCE7236 AS SELECT * FROM DEPARTMENT_20BCE7236;
```

The screenshot shows a SQL script window with the following commands:

```
ALTER TABLE DEPARTMENT_20BCE7236 DROP COLUMN MobileNo;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
CREATE TABLE COPYOFDEPT_20BCE7236 AS SELECT * FROM DEPARTMENT_20BCE7236;  
DELETE FROM COPYOFDEPT_20BCE7236 WHERE DEPT_NO=5;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
TRUNCATE TABLE COPYOFDEPT_20BCE7236 ;  
SELECT * FROM COPYOFDEPT_20BCE7236 ;  
DROP TABLE COPYOFDEPT_20BCE7236;  
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJECTNAME, PROJECTNUMBER FROM PROJECT_20BCE7236;
```

The Script Output window shows the following messages:

```
Table DEPARTMENT_20BCE7236 altered.  
  
Table DEPARTMENT_20BCE7236 altered.  
  
Table COPYOFDEPT_20BCE7236 created.
```

### 14. Remove the rows from COPYOFDEPT table with department number as 5.

```
DELETE FROM COPYOFDEPT_20BCE7236 WHERE DEPT_NO=5;  
SELECT * FROM DEPARTMENT_20BCE7236 ;
```

The screenshot shows a SQL script window with the following commands:

```
SELECT * FROM DEPARTMENT_20BCE7236 ;  
CREATE TABLE COPYOFDEPT_20BCE7236 AS SELECT * FROM DEPARTMENT_20BCE7236;  
DELETE FROM COPYOFDEPT_20BCE7236 WHERE DEPT_NO=5;  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
TRUNCATE TABLE COPYOFDEPT_20BCE7236 ;  
SELECT * FROM COPYOFDEPT_20BCE7236 ;  
DROP TABLE COPYOFDEPT_20BCE7236;  
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJECTNAME, PROJECTNUMBER FROM PROJECT_20BCE7236;  
SELECT * FROM PROJECT_DETAILS_20BCE7236 ;  
RENAME DEPARTMENT_20BCE7236 TO DEPT_20BCE7236;  
SELECT * FROM DEPT_20BCE7236 ;
```

The Script Output window shows the following messages:

```
Table DEPARTMENT_20BCE7236 altered.  
  
Table DEPARTMENT_20BCE7236 altered.  
  
Table COPYOFDEPT_20BCE7236 created.
```

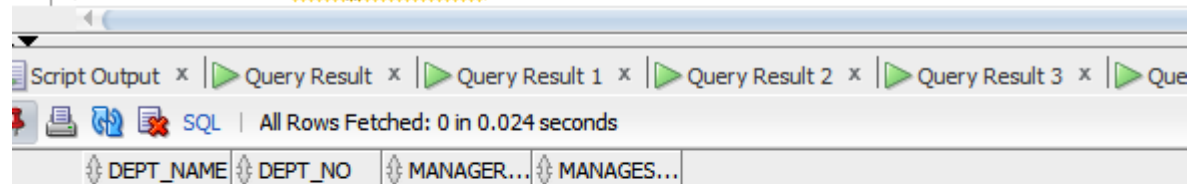
The Query Result window shows the following data:

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

**15. Delete all rows from COPYOFDEPT.**

```
TRUNCATE TABLE COPYOFDEPT_20BCE7236 ;  
SELECT * FROM COPYOFDEPT_20BCE7236 ;
```

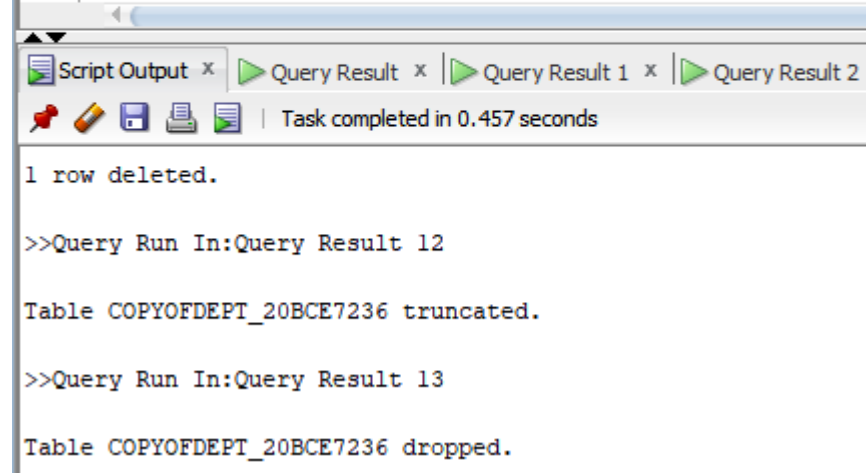
```
DELETE FROM COPYOFDEPT_20BCE7236 WHERE DEPT_NO=3,  
SELECT * FROM DEPARTMENT_20BCE7236 ;  
TRUNCATE TABLE COPYOFDEPT_20BCE7236 ;  
SELECT * FROM COPYOFDEPT_20BCE7236 ;  
DROP TABLE COPYOFDEPT_20BCE7236;  
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJECTNAME, PROJECTNUMBER FROM  
SELECT * FROM PROJECT_DETAILS_20BCE7236 ;  
RENAME DEPARTMENT_20BCE7236 TO DEPT_20BCE7236;  
SELECT * FROM DEPT_20BCE7236 ;
```



**16. Remove COPYOFDEPT table.**

```
DROP TABLE COPYOFDEPT_20BCE7236;
```

```
TRUNCATE TABLE COPYOFDEPT_20BCE7236 ;  
SELECT * FROM COPYOFDEPT_20BCE7236 ;  
DROP TABLE COPYOFDEPT_20BCE7236;  
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJEC  
SELECT * FROM PROJECT_DETAILS_20BCE7236 ;  
RENAME DEPARTMENT_20BCE7236 TO DEPT_20BCE7236;  
SELECT * FROM DEPT_20BCE7236 ;
```



```
1 row deleted.  
  
>>Query Run In:Query Result 12  
  
Table COPYOFDEPT_20BCE7236 truncated.  
  
>>Query Run In:Query Result 13  
  
Table COPYOFDEPT_20BCE7236 dropped.
```

- handled by department number 1.**

```
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJECTNAME, PROJECTNUMBER FROM
PROJECT_20BCE7236 WHERE DEPT_NO= 1;
```

```
DROP TABLE COPYOFDEPT_20BCE7236;  
CREATE VIEW PROJECT_DETAILS_20BCE7236 AS SELECT PROJECTNAME, PROJECTNUMBER FROM PROJECT_20BCE7236 WHERE DEPT_NO= 1;  
SELECT * FROM PROJECT_DETAILS_20BCE7236 ;  
RENAME DEPARTMENT_20BCE7236 TO DEPT_20BCE7236;  
SELECT * FROM DEPT_20BCE7236 ;
```

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x | Query Re... x | x | x | x | x | x | x | x | x | x | x |

SQL | All Rows Fetched: 2 in 0.021 seconds

	PROJECTNAME	PROJECTNUMBER
1	ProjectA	3388
2	ProjectI	4345

- 18. Change name of Table Department to DEPT.**

```
RENAME DEPARTMENT_20BCE7236 TO DEPT_20BCE7236;  
SELECT * FROM DEPT_20BCE7236 ;
```

SELECT \* FROM PROJECT\_DETAILS 20BCE7236 ;  
RENAME DEPARTMENT\_20BCE7236 TO DEPT\_20BCE7236;  
SELECT \* FROM DEPT\_20BCE7236 ;

Script Output x | Query Result x | Query Result 1 x | Query Result 2 x | Query Result 3 x |

SQL | All Rows Fetched: 4 in 0.017 seconds

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

**S.B.ASHRITH**  
**20BCE7236**