I. Create the tables EMP and DEPT with the following fields.

EMP

Column Name	Data Type	Description	Constraints
EMPNO	Number	Employee number	Primary Key, Values between 1000 and 2000
ENAME	Varchar	Employee name	Not null
JOB	Char	Designation	Not null
MGR	Number	Manager's EMPNO	-
HIREDATE	Date	Date of joining	-
SAL	Number	Basic salary	
COMM	Number	Commission	
DEPTNO	Number	Department number	Foreign Key References DEPT(DEPTNO)

DEPT

| Column Name	Data Type	Description	Constraints
DEPTNO	Number	Department number	Primary Key
DNAME	Varchar	Department name	Unique
LOC	Varchar	Department Location	-

ANS:-

Statement 1

```
create table EMP(EMPNO number(4) constraint pk primary key,ENAME varchar(20) not null,JOB char(10) not null,MGR number(2),HIREDATE date,SAL number(7),COMM number(6),DEPTNO numb
```

Table created.

Statement 2

```
desc EMP
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(4,0)
ENAME	NOT NULL	VARCHAR2(20)
JOB	NOT NULL	CHAR(10)
MGR	-	NUMBER(2,0)
HIREDATE	-	DATE
SAL	-	NUMBER(7,0)
COMM	-	NUMBER(6,0)
DEPTNO	-	NUMBER(2,0)

Download CSV
8 rows selected.

Statement 3

```
create table DEPT(DEPTNO number(2) constraint pk1 primary key,DNAME varchar(10),LOC varchar(10))
```

Table created.

II. Add the columns DOB (Date of Birth) and MISC (Miscellaneous) into the EMP table.

ANS:-

Statement 4

```
alter table EMP add(foreign key(DEPTNO) references DEPT(DEPTNO))
```

Table altered.

Statement 5

```
alter table EMP add(DOB date, MISC varchar(20))
```

Table altered.

III. Add the column NOM (Number of Members) into the DEPT table.

ANS:-

Statement 6

```
alter table DEPT add(NOM number(2))
```

Table altered.

IV. Modify the column COMM, SAL from Number to Float.

ANS:-

Statement 7

```
alter table EMP modify(COMM float(3),SAL float(7))
```

Table altered.

V. Remove the columns DOB and MISC from the table EMP.

ANS:-

Statement 8

```
alter table EMP drop column DOB
```

Table altered.

Statement 9

```
alter table EMP drop column MISC
```

Table altered.

VI. Display the structure of the tables EMP and DEPT.

ANS:-

Statement **10**

```
desc EMP
```

TABLE EMP

Column	Null?	Type
EMPNO	NOT NULL	NUMBER(4,0)
ENAME	NOT NULL	VARCHAR2(20)
JOB	NOT NULL	CHAR(10)
MGR	-	NUMBER(2,0)
HIREDATE	-	DATE
SAL	-	FLOAT(7)
COMM	-	FLOAT(3)
DEPTNO	-	NUMBER(2,0)

Download CSV

8 rows selected.

Statement **11**

```
desc DEPT
```

TABLE DEPT

Column	Null?	Type
DEPTNO	NOT NULL	NUMBER(2,0)
DNAME	-	VARCHAR2(10)
LOC	-	VARCHAR2(10)
NOM	-	NUMBER(2,0)

Download CSV

****

I. Insert ten records into the EMP table and DEPT table.

ANS:-

Statement 14		Statement 38	
`insert into DEPT values(1,'ACC','Area 1')`		`insert into EMP values(1689,'Devangi','Intern',89,'01-Mar-2021',70000,1000,1)`	
1 row(s) inserted.		1 row(s) inserted.	
Statement 15		Statement 39	
`insert into DEPT values(2,'MAR','Area 2')`		`insert into EMP values(1690,'Roopu','Intern',90,'02-Mar-2021',80000,1000,2)`	
1 row(s) inserted.		1 row(s) inserted.	
Statement 16		Statement 40	
`insert into DEPT values(3,'QUA','Area 3')`		`insert into EMP values(1691,'Shubham','Intern',90,'03-Mar-2021',85000,1000,3)`	
1 row(s) inserted.		1 row(s) inserted.	

RESULT:-

`select * from DEPT`

`select * from EMP`

DEPTNO	DNAME	LOC
2	MAR	Area 2
3	QUA	Area 3
4	HED	Area 4
5	SAL	Area 5
6	DIS	Area 6
7	RET	Area 7
8	SHA	Area 8
9	TEA	Area 9
10	LEA	Area 10
1	ACC	Area 1

Download CSV

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
1689	Devangi	Intern	89	01-MAR-21	70000	1000	1
1690	Roopu	Intern	90	02-MAR-21	80000	1000	2
1691	Shubham	Intern	90	03-MAR-21	85000	1000	3
1692	Varun	Intern	90	04-MAR-21	60000	1000	4
1693	Eshan	Intern	90	05-MAR-21	65000	1000	5
1694	Hemant	Intern	91	06-MAR-21	55000	1000	5
1695	Riya	Intern	90	07-MAR-21	50000	1000	6
1696	Ajay	Intern	91	08-MAR-21	45000	1000	7
1697	Harshal	Intern	91	09-MAR-21	40000	1000	8
1698	Ritvick	Intern	91	09-MAR-21	70000	1000	9

Download CSV

II. Change the salary of employees who earns 80000 to 100000.

ANS:-

Statement **49**

```
update EMP set SAL=100000 where SAL=80000
```

1 row(s) updated.

III. Change the location of department 2 from one location to another location in DEPT table.
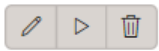
ANS:-

Statement **51**

```
update DEPT set LOC='Area 10' where DEPTNO=2
```

1 row(s) updated.

IV. Change the commission of an employee to 2500.

ANS:-

Statement **53**

```
update EMP set COMM=2500 where EMPNO=1691
```

1 row(s) updated.

V. List all the records from EMP table.

ANS:-

Statement **54**

```
select * from EMP
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
1689	Devangi	Intern	89	01-MAR-21	70000	1000	1
1690	Roopu	Intern	90	02-MAR-21	100000	1000	2
1691	Shubham	Intern	90	03-MAR-21	85000	3000	3
1692	Varun	Intern	90	04-MAR-21	60000	1000	4
1693	Eshan	Intern	90	05-MAR-21	65000	1000	5
1694	Hemant	Intern	91	06-MAR-21	55000	1000	5
1695	Riya	Intern	90	07-MAR-21	50000	1000	6
1696	Ajay	Intern	91	08-MAR-21	45000	1000	7
1697	Harshal	Intern	91	09-MAR-21	40000	1000	8
1698	Ritvick	Intern	91	09-MAR-21	70000	1000	9

Download CSV

VI. Display employee number, name and salary of EMP table.

ANS:-

Statement 55

```sql
select EMPNO,ENAME,SAL from EMP
```

EMPNO	ENAME	SAL
1689	Devangi	70000
1690	Roopu	100000
1691	Shubham	85000
1692	Varun	60000
1693	Eshan	65000
1694	Hemant	55000
1695	Riya	50000
1696	Ajay	45000
1697	Harshal	40000
1698	Ritvick	70000

Download CSV

VII. Display the distinct employee names of EMP table.

ANS:-

Statement 57

```sql
select distinct ENAME from EMP
```

ENAME
Ajay
Roopu
Hemant
Devangi
Varun
Harshal
Eshan
Shubham
Riya
Ritvick

Download CSV

VIII. Find out the employee names whose salary> 55000.

ANS:-

Statement 58

```sql
select ENAME,SAL from EMP where SAL>55000
```

ENAME	SAL
Devangi	70000
Roopu	100000
Shubham	85000
Varun	60000
Eshan	65000
Ritvick	70000

Download CSV

IX. Without duplication, list all the designations of EMP table.

ANS:-

Statement **59**

```
select distinct JOB from EMP
```

| JOB |
| --- |
| Intern |

Download CSV

X. Display ENAME and SAL of EMP table with the column headings NAME

and SALARY.

ANS:-

Statement **60**

```
select ENAME as NAME,SAL as SALARY from EMP
```

| NAME | SALARY |
| --- | --- |
| Devangi | 70000 |
| Roopu | 100000 |
| Shubham | 85000 |
| Varun | 60000 |
| Eshan | 65000 |
| Hemant | 55000 |
| Riya | 50000 |
| Ajay | 45000 |
| Harshal | 40000 |
| Ritvick | 70000 |

Download CSV

XI. Delete any one row with their ENAME

ANS:-

Statement **61**

```
delete from EMP where ENAME='Hemant'
```

1 row(s) deleted.

****

I. Add NOT NULL Constraint to the columns ENAME and JOB of EMP table.

ANS:-

```
SQL> alter table emp modify(ename varchar(20) not null);

Table altered.

SQL> alter table emp modify(job varchar(20) not null);
```

Statement 64

```
alter table EMP modify(ENAME varchar(28) not null)
```

ORA-01442: column to be modified to NOT NULL is already NOT NULL

II. Add PRIMARY key constraint to the column EMPNO of EMP table.

ANS:-

Statement 1

```
create table EMP(EMPNO number(4) constraint pk primary key,
```

Table created.

III. Add PRIMARY KEY constraints to the column DEPTNO of DEPT table.

ANS:-

Statement 3

```
create table DEPT(DEPTNO number(2) constraint pk1 primary key,DNAME varchar(10),LOC varchar(10))
```

Table created.

Statement 65

```
alter table EMP modify(JOB varchar(20) not null)
```
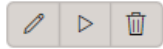
ORA-01442: column to be modified to NOT NULL is already NOT NULL

IV. Add UNIQUE key constraint to the column DNAME of DEPT table.

ANS-

Statement **62**

```
alter table DEPT add(constraint nn unique(DNAME))
```

Table altered.

V. Add check constraint to the table EMP to restrict the values of EMPNO lies between 1000 and 2000.
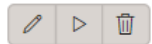
ANS:-

Statement **63**

```
alter table EMP add check(EMPNO>=1000 and EMPNO<=2000)
```

Table altered.

VI. Add FOREIGN key constraint to the column DEPTNO of EMP referring the DEPTNO of DEPT table.

Statement **4**

```
alter table EMP add(foreign key(DEPTNO) references DEPT(DEPTNO))
```

Table altered.

****