1. TABLE Employee

SQL> CREATE TABLE Employee(Empno NUMBER(10) PRIMARY KEY,Ename VARCHAR(20),Job VARCHAR(20),sal NUMBER(10));

Table created.

SQL> DESC Employee;

Name Null? Type

----------------------------------------- -------- ----------------------------

EMPNO NOT NULL NUMBER(10)

ENAME VARCHAR2(20)

JOB VARCHAR2(20)

SAL NUMBER(10)

a.) Insert any 5 records into the table.

SQL> INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal);

Enter value for empno: 201

Enter value for ename: Joe

Enter value for job: manager

Enter value for sal: 30000

old 1: INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal)

new 1: INSERT INTO Employee VALUES(201,'Joe','manager',30000)

1 row created.

SQL> INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal);

Enter value for empno: 202

Enter value for ename: shalu

Enter value for job: administrator

Enter value for sal: 25000

old 1: INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal)

new 1: INSERT INTO Employee VALUES(202,'shalu','administrator',25000

1 row created

SQL> INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal);

Enter value for empno: 203

Enter value for ename: seby

Enter value for job: HR manager

Enter value for sal: 32000

old 1: INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal)

new 1: INSERT INTO Employee VALUES(203,'seby','HR manager',32000)

1 row created.

SQL> INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal);

Enter value for empno: 204

Enter value for ename: george

Enter value for job: developer

Enter value for sal: 26000

old 1: INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal)

new 1: INSERT INTO Employee VALUES(204,'george','developer',26000)

1 row created.

SQL> INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal);

Enter value for empno: 205

Enter value for ename: CEO

Enter value for job: senior developer

Enter value for sal: 28000

old 1: INSERT INTO Employee VALUES(&Empno,'&Ename','&Job',&sal)

new 1: INSERT INTO Employee VALUES(205,'Anu','senior developer',28000)

1 row created.

SQL> SELECT \* FROM Employee;

EMPNO ENAME JOB SAL

---------- -------------------- -------------------- ----------

201 Joe manager 30000

202 shalu administrator 25000

203 seby HR manager 32000

204 george developer 26000

1. Anu senior developer 28000

b.) Update the column details of job.

SQL> UPDATE Employee SET Job='Trainee' WHERE Empno=205;

1 row updated.

SQL> SELECT \* FROM Employee;

EMPNO ENAME JOB SAL

---------- -------------------- -------------------- ----------

201 Joe manager 30000

202 shalu administrator 25000

203 seby HR manager 32000

204 george developer 26000

205 Anu Trainee 28000

c.) Rename the column of employee table using alter command.

SQL> ALTER TABLE Employee RENAME COLUMN sal to salary;

Table altered.

SQL> DESC Employee;

Name Null? Type

----------------------------------------- -------- ----------------------------

EMPNO NOT NULL NUMBER(10)

ENAME VARCHAR2(20)

JOB VARCHAR2(20)

SALARY NUMBER(10)

d.) Add a column Commission with domain to the employee table.

SQL> ALTER TABLE Employee ADD(Commission NUMBER(15));

Table altered.

e.) Delete the employee whose empno is 202.

SQL> DELETE Employee WHERE Empno=202;

1 row deleted.

SQL> SELECT \* FROM Employee;

EMPNO ENAME JOB SAL

---------- -------------------- -------------------- ----------

201 Joe manager 30000

203 seby HR manager 32000

204 george developer 26000

205 Anu Trainee 28000

2. TABLE Department

SQL> CREATE TABLE Department(Deptno NUMBER(15) PRIMARY KEY,Deptname VARCHAR(20),Location VARCHAR(20));

Table created.

SQL> DESC Department;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEPTNO NOT NULL NUMBER(15)

DEPTNAME VARCHAR2(20)

LOCATION VARCHAR2(20)

1. Add a column designation to the Department Table.

SQL> ALTER TABLE Department ADD(Designation VARCHAR(20));

Table altered.

SQL> DESC Department;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEPTNO NOT NULL NUMBER(15)

DEPTNAME VARCHAR2(20)

LOCATION VARCHAR2(20)

DESIGNATION VARCHAR2(20)

1. Insert values into the table.

SQL> INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation');

Enter value for deptno: 101

Enter value for deptname: BCA

Enter value for location: alphonsa block

Enter value for designation: HOD

old 1: INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation')

new 1: INSERT INTO Department VALUES (101,'BCA','alphonsa block','HOD')

1 row created.

SQL> INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation');

Enter value for deptno: 102

Enter value for deptname: MCA

Enter value for location: st.francis block

Enter value for designation: Faculty

old 1: INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation')

new 1: INSERT INTO Department VALUES (102,'MCA','st.francis block','Faculty')

1 row created.

SQL> INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation');

Enter value for deptno: 103

Enter value for deptname: mtech

Enter value for location: St.thomas block

Enter value for designation: Ass.professor

old 1: INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation')

new 1: INSERT INTO Department VALUES (103,'mtech','St.thomas block','Ass.professor')

1 row created.

SQL> INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation');

Enter value for deptno: 9

Enter value for deptname: mathematics

Enter value for location: st.peters block

Enter value for designation: Guest lecture

old 1: INSERT INTO Department VALUES (&Deptno,'&Deptname','&Location','&Designation')

new 1: INSERT INTO Department VALUES (9,'mathematics','st.peters block','Guest lecture')

1 row created.

SQL> SELECT \* FROM department;

DEPTNO DEPTNAME LOCATION DESIGNATION

---------- -------------------- -------------------- --------------------

101 BCA alphonsa block HOD

102 MCA st.francis block Faculty

103 mtech St.thomas block Ass.professor

1. mathematics st.peters block Guest lecture
2. List the record of Dept table grouped by Deptno.

SQL> SELECT Deptno,Deptname FROM Department GROUP BY Deptno,deptname;

DEPTNO DEPTNAME

---------- --------------------

9 mathematics

102 MCA

103 mtech

101 BCA

1. Update the record where deptno is 9.

SQL> UPDATE Department SET Deptname='MCA' WHERE Deptno=9;

1 row updated.

SQL> SELECT \* FROM Department;

DEPTNO DEPTNAME LOCATION DESIGNATION

---------- -------------------- -------------------- --------------------

101 BCA alphonsa block HOD

102 MCA st.francis block Faculty

103 mtech St.thomas block Ass.professor

9 MCA st.peters block Guest lecture

1. Delete any column data from the table.

SQL> ALTER TABLE Department DROP COLUMN Location;

Table altered.

SQL> DESC Department;

Name Null? Type

----------------------------------------- -------- ----------------------------

DEPTNO NOT NULL NUMBER(15)

DEPTNAME VARCHAR2(20)

DESIGNATION VARCHAR2(20)

3. TABLE Customer

SQL> CREATE TABLE Customer(Cust\_name VARCHAR(20),Cust\_street VARCHAR(20),Cust\_city VARCHAR(20));

Table created.

SQL> DESC Customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUST\_NAME VARCHAR2(20)

CUST\_STREET VARCHAR2(20)

CUST\_CITY VARCHAR2(20)

1. Insert records into a table.

SQL> INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city');

Enter value for cust\_name: Anu

Enter value for cust\_street: payappar

Enter value for cust\_city: pala

old 1: INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city')

new 1: INSERT INTO Customer VALUES('Anu','payappar','pala')

1 row created.

SQL> INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city');

Enter value for cust\_name: sreyas

Enter value for cust\_street: kattappana

Enter value for cust\_city: idukki

old 1: INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city')

new 1: INSERT INTO Customer VALUES('sreyas','kattappana','idukki')

1 row created.

SQL> INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city');

Enter value for cust\_name: seby

Enter value for cust\_street: mundankal

Enter value for cust\_city: thodupuzha

old 1: INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city')

new 1: INSERT INTO Customer VALUES('seby','mundankal','thodupuzha')

1 row created.

SQL> INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city');

Enter value for cust\_name: aaron

Enter value for cust\_street: thidanad

Enter value for cust\_city: kaanjar

old 1: INSERT INTO Customer VALUES('&Cust\_name','&cust\_street','&cust\_city')

new 1: INSERT INTO Customer VALUES('aaron','thidanad','kaanjar')

1 row created.

SQL> SELECT \* FROM Customer;

CUST\_NAME CUST\_STREET CUST\_CITY

-------------------- -------------------- --------------------

Anu payappar pala

sreyas kattappana idukki

seby mundankal thodupuzha

aaron thidanad kaanjar

1. Add a salary column to the table.

SQL> ALTER TABLE Customer ADD(Salary NUMBER(20));

Table altered.

SQL> DESC Customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUST\_NAME VARCHAR2(20)

CUST\_STREET VARCHAR2(20)

CUST\_CITY VARCHAR2(20)

SALARY NUMBER(20)

1. Alter the table column domain.
2. Drop salary column of Customer table.

SQL> ALTER TABLE Customer DROP COLUMN Salary;

Table altered.

SQL> DESC Customer;

Name Null? Type

----------------------------------------- -------- ----------------------------

CUST\_NAME VARCHAR2(20)

CUST\_STREET VARCHAR2(20)

CUST\_CITY VARCHAR2(20)

1. Delete the rows of Customer table whose cust\_city is ‘kaanjar ’.

SQL> DELETE FROM Customer WHERE Cust\_city='kaanjar';

1 row deleted.

SQL> SELECT \* FROM Customer;

CUST\_NAME CUST\_STREET CUST\_CITY

-------------------- -------------------- --------------------

Anu payappar pala

sreyas kattappana idukki

seby mundankal thodupuzha

4. TABLE Branch

SQL> CREATE TABLE Branch(Branch\_name VARCHAR(20),Branch\_city VARCHAR(20),Asserts NUMBER(20));

Table created.

SQL> DESC Branch;

Name Null? Type

----------------------------------------- -------- ----------------------------

BRANCH\_NAME VARCHAR2(20)

BRANCH\_CITY VARCHAR2(20)

ASSERTS NUMBER(20)

1. Increase the size of data type for Asserts to the Branch.

SQL> ALTER TABLE Branch MODIFY Asserts NUMBER(25);

Table altered.

SQL> DESC Branch;

Name Null? Type

----------------------------------------- ------- ----------------------------

BRANCH\_NAME VARCHAR2(20)

BRANCH\_CITY VARCHAR2(20)

ASSERTS NUMBER(25)

1. Add and drop a column to the Branch table.

SQL> ALTER TABLE Branch ADD(Salary NUMBER(20));

Table altered.

SQL> DESC Branch;

Name Null? Type

----------------------------------------- -------- ----------------------------

BRANCH\_NAME VARCHAR2(20)

BRANCH\_CITY VARCHAR2(20)

ASSERTS NUMBER(25)

SALARY NUMBER(20)

SQL> ALTER TABLE Branch DROP(Asserts);

Table altered.

SQL> DESC Branch;

Name Null? Type

----------------------------------------- -------- ----------------------------

BRANCH\_NAME VARCHAR2(20)

BRANCH\_CITY VARCHAR2(20)

SALARY NUMBER(20)

1. Insert values to the table.

SQL> INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary);

Enter value for branch\_name: Pravithanm

Enter value for branch\_city: pala

Enter value for salary: 30000

old 1: INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary)

new 1: INSERT INTO Branch VALUES ('Pravithanm','pala',30000)

1 row created.

SQL> INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary);

Enter value for branch\_name: valavoor

Enter value for branch\_city: payappar

Enter value for salary: 20000

old 1: INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary)

new 1: INSERT INTO Branch VALUES ('valavoor','payappar',20000)

1 row created.

SQL> INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary);

Enter value for branch\_name: elappara

Enter value for branch\_city: kattappana

Enter value for salary: 10000

old 1: INSERT INTO Branch VALUES ('&Branch\_name','&Branch\_city',&Salary)

new 1: INSERT INTO Branch VALUES ('elappara','kattappana',10000)

1 row created.

SQL> SELECT \* FROM Branch;

BRANCH\_NAME BRANCH\_CITY SALARY

-------------------- -------------------- ----------

Pravithanm pala 30000

valavoor payappar 20000

elappara kattappana 10000

1. Update the branch name Column.
2. Delete any two column from the table.

5. TABLE EMP

SQL> CREATE TABLE EMP(empno NUMBER(4) PRIMARY KEY,ename VARCHAR(25),job VARCHAR(12),salary NUMBER(10,2),commission NUMBER(7,2),depno NUMBER(2));

Table created.

2. SQL> DESC EMP;

Name Null? Type

--------------------------- -------- ----------------------------

EMPNO NOT NULL NUMBER(4)

ENAME VARCHAR2(25)

JOB VARCHAR2(12)

SALARY NUMBER(10,2)

COMMISSION NUMBER(7,2)

DEPNO NUMBER(2)

3. Insert records into the table.

SQL>INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno);

Enter value for empno: 101

Enter value for ename: steffi

Enter value for job: manager

Enter value for salary: 50000

Enter value for commission: 1000

Enter value for depno: 10

old 1: INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno)

new 1: INSERT INTO EMP VALUES(101,'steffi','manager',50000,1000,10)

1 row created.

SQL> INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno);

Enter value for empno: 102

Enter value for ename: anu

Enter value for job: clerk

Enter value for salary: 30000

Enter value for commission: 1050

Enter value for depno: 20

old 1: INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno)

new 1: INSERT INTO EMP VALUES(102,'anu','clerk',30000,1050,20)

1 row created.

SQL> INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno);

Enter value for empno: 103

Enter value for ename: alphy

Enter value for job: data analyst

Enter value for salary: 40000

Enter value for commission: 3000

Enter value for depno: 30

old 1: INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno)

new 1: INSERT INTO EMP VALUES(103,'alphy','data analyst',40000,3000,30)

1 row created.

SQL> INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno);

Enter value for empno: 104

Enter value for ename: adorn

Enter value for job: tester

Enter value for salary: 20000

Enter value for commission: 800

Enter value for depno: 40

old 1: INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno)

new 1: INSERT INTO EMP VALUES(104,'adorn','tester',20000,800,40)

1 row created.

SQL> INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno);

Enter value for empno: 105

Enter value for ename: mariya

Enter value for job:

Enter value for salary: 45000

Enter value for commission: 3500

Enter value for depno: 50

old 1: INSERT INTO EMP VALUES(&empno,'&ename','&job',&salary,&commission,&depno)

new 1: INSERT INTO EMP VALUES(105,'mariya','',45000,3500,50)

1 row created.

4. Display all the records.

SQL> SELECT \* FROM EMP;

EMPNO ENAME JOB SALARY COMMISSION DEPNO

-------------- ------------- --------------------- ------------ ---------------------- ----------

101 steffi manager 50000 1000 10

102 anu clerk 30000 1050 20

103 alphy data analyst 40000 3000 30

104 adorn tester 20000 800 40

105 mariya 45000 3500 50

5. Insert job as ‘PA’ for all ‘NULL’ job types.

SQL> UPDATE EMP SET JOB='PA' WHERE JOB IS NULL;

1 row updated.

SQL> SELECT \* FROM EMP;

EMPNO ENAME JOB SALARY COMMISSION DEPNO

---------- ------------------------- ------------ ---------- ---------- ----------

101 steffi manager 50000 1000 10

102 anu clerk 30000 1050 20

103 alphy data analyst 40000 3000 30

104 adorn tester 20000 800 40

105 mariya PA 45000 3500 50

6. Change the job type ‘data analyst’ to ‘analyst’.

SQL> UPDATE EMP SET JOB='analyst' WHERE JOB='data analyst';

1 row updated.

SQL> SELECT \* FROM EMP;

EMPNO ENAME JOB SALARY COMMISSION DEPNO

---------- ------------------------- ------------ ---------- ---------- ----------

101 steffi manager 50000 1000 10

102 anu clerk 30000 1050 20

103 alphy analyst 40000 3000 30

104 adorn tester 20000 800 40

105 mariya PA 45000 3500 50

7. Add a new field ‘doj’ to the table and insert the date ’17-DEC-80’ to all the record.

SQL> ALTER TABLE EMP ADD (doj DATE);

Table altered.

SQL> SET LINESIZE 100

SQL> DESC EMP;

Name Null? Type

---------------------------------------------- -------- ------------------------------------

EMPNO NOT NULL NUMBER(4)

ENAME VARCHAR2(25)

JOB VARCHAR2(12)

SALARY NUMBER(10,2)

COMMISSION NUMBER(7,2)

DEPNO NUMBER(2)

DOJ DATE

SQL> UPDATE EMP SET doj='17-DEC-80' WHERE doj IS NULL;

5 rows updated.

SQL> SELECT \* FROM EMP;

EMPNO ENAME JOB SALARY COMMISSION DEPNO DOJ

---------- -------------------- ------------ ---------- ---------------- ---------- ------

101 steffi manager 50000 1000 10 17-DEC-80

102 anu clerk 30000 1050 20 17-DEC-80

103 alphy analyst 40000 3000 30 17-DEC-80

104 adorn tester 20000 800 40 17-DEC-80

105 mariya PA 45000 3500 50 17-DEC-80

8. Display all distinct job types.

SQL> SELECT DISTINCT job FROM EMP;

JOB

------------

tester

clerk

manager

analyst

PA

9. Display empno,ename,job from table emp.

SQL> SELECT empno,ename,job FROM EMP;

EMPNO ENAME JOB

---------- ------------------------- ------------

101 steffi manager

102 anu clerk

103 alphy analyst

104 adorn tester

105 mariya PA

10. Display names of all employees in depno 20 and 30.

SQL> SELECT ename FROM EMP WHERE depno=20 OR depno=30;

ENAME

-------------------------

anu

alphy

11.

A) Find the total salary of all employes.

SQL> SELECT SUM(salary) FROM EMP;

SUM(SALARY)

-----------

185000

B) List name and total of salary.

SQL> SELECT ename,SUM(salary),SUM(salary+commission) FROM EMP GROUP BY ename;

ENAME SUM(SALARY) SUM(SALARY+COMMISSION)

------------------------- ------------------- -------------------------------

steffi 50000 51000

anu 30000 31050

alphy 40000 43000

adorn 20000 20800

mariya 45000 48500

C) List job and total of salary.

SQL> SELECT job,SUM(salary)FROM EMP GROUP BY job;

JOB SUM(SALARY)

------------ -----------

tester 20000

clerk 30000

manager 50000

analyst 40000

PA 45000