```
SQL> --DELETE Command--
SQL> DELETE FROM EMPLOYEES
  2  WHERE EMPNO=7936;

0 rows deleted.

SQL> DELETE FROM EMPLOYEES
  2  WHERE EMPNO >7934;

0 rows deleted.

SQL> DELETE FROM EMPLOYEES
  2  WHERE DEPTNO=30;

6 rows deleted.

SQL> SELECT * FROM EMPLOYEES;

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7369 SMITH  CLERK      7902 17-DEC-80   800          20
 7566 JONES  MANAGER    7839 02-APR-81                20
 7782 CLARK  MANAGER    7839 09-JUN-81  3465          20
 7788 SCOTT  ANALYST    7566 19-APR-87  3000          20
 7839 KING   PRESIDENT       17-NOV-81  3465          20
 7876 ADAMS  CLERK      7788 23-MAY-87  1100          20
 7902 FORD   ANALYST    7566 03-DEC-81  3000          20
 7934 MILLER CLERK      7782 23-JAN-82  3465          20
 7782 CLARK  MANAGER    7839 09-JUN-81  3450          10
 7839 KING   PRESIDENT       17-NOV-81  6000          10
 7934 MILLER CLERK      7782 23-JAN-82  2300          10

11 rows selected.

SQL> DELETE FROM EMPLOYEES
  2  WHERE DEPTNO=10;

3 rows deleted.

SQL> SELECT * FROM EMPLOYEES;

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7369 SMITH  CLERK      7902 17-DEC-80   800          20
 7566 JONES  MANAGER    7839 02-APR-81                20
 7782 CLARK  MANAGER    7839 09-JUN-81  3465          20
 7788 SCOTT  ANALYST    7566 19-APR-87  3000          20
 7839 KING   PRESIDENT       17-NOV-81  3465          20
 7876 ADAMS  CLERK      7788 23-MAY-87  1100          20
 7902 FORD   ANALYST    7566 03-DEC-81  3000          20
 7934 MILLER CLERK      7782 23-JAN-82  3465          20

8 rows selected.
```

```
SQL> DELETE FROM EMPLOYEES
  2  WHERE DEPTNO=
  3  (
  4  SELECT DEPTNO
  5  FROM DEPT
  6  WHERE DNAME='SALES'
  7  );

0 rows deleted.

SQL> ROLLBACK;

Rollback complete.

SQL> SELECT * FROM EMPLOYEES;

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7900 JAMES  CLERK      7698 03-DEC-81  1045          30
 7369 SMITH  CLERK      7902 17-DEC-80   800          20
 7499 ALLEN  SALESMAN   7698 20-FEB-81  1760   300    30
 7521 WARD   SALESMAN   7698 22-FEB-81  1375   500    30
 7566 JONES  MANAGER    7839 02-APR-81                20
 7654 MARTIN SALESMAN   7698 28-SEP-81  1375  1400    30
 7698 BLAKE  SALESMAN   7839 01-MAY-81                30
 7782 CLARK  MANAGER    7839 09-JUN-81  3465          20
 7788 SCOTT  ANALYST    7566 19-APR-87  3000          20
 7839 KING   PRESIDENT       17-NOV-81  3465          20
 7844 TURNER SALESMAN   7698 08-SEP-81  1650     0    30

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7876 ADAMS  CLERK      7788 23-MAY-87  1100          20
 7902 FORD   ANALYST    7566 03-DEC-81  3000          20
 7934 MILLER CLERK      7782 23-JAN-82  3465          20
 7782 CLARK  MANAGER    7839 09-JUN-81  3450          10
 7839 KING   PRESIDENT       17-NOV-81  6000          10
 7934 MILLER CLERK      7782 23-JAN-82  2300          10

17 rows selected.

SQL> DELETE FROM EMPLOYEES
  2  WHERE DEPTNO=
  3  (
  4  SELECT DEPTNO
  5  FROM DEPT
  6  WHERE DNAME='SALES'
  7  );

6 rows deleted.

SQL> SELECT * FROM EMPLOYEES;

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
```

```
----- ------ ---------- ----- --------- ----- ----- ------
 7369 SMITH  CLERK       7902 17-DEC-80   800          20
 7566 JONES  MANAGER     7839 02-APR-81                20
 7782 CLARK  MANAGER     7839 09-JUN-81  3465          20
 7788 SCOTT  ANALYST     7566 19-APR-87  3000          20
 7839 KING   PRESIDENT        17-NOV-81  3465          20
 7876 ADAMS  CLERK       7788 23-MAY-87  1100          20
 7902 FORD   ANALYST     7566 03-DEC-81  3000          20
 7934 MILLER CLERK       7782 23-JAN-82  3465          20
 7782 CLARK  MANAGER     7839 09-JUN-81  3450          10
 7839 KING   PRESIDENT        17-NOV-81  6000          10
 7934 MILLER CLERK       7782 23-JAN-82  2300          10

11 rows selected.

SQL> ----SAVEPOINT----
SQL> SAVEPOINT DEPTDEL;

Savepoint created.

SQL> DELETE FROM DEPT
  2  WHERE DEPTNO=40;

1 row deleted.

SQL> SAVEPOINT EMPUPD;

Savepoint created.

SQL> UPDATE EMPLOYEES
  2  SET SAL =SAL + 1000
  3  WHERE DEPTNO=30;

6 rows updated.

SQL> UPDATE EMPLOYEES
  2  SET SAL = SAL + 1500
  3  WHERE ENAME='JONES';

1 row updated.

SQL> SAVEPOINT DEPTINS;

Savepoint created.

SQL> INSERT INTO DEPT
  2  VALUES(50,'SHIPPING','CHENNAI');

1 row created.

SQL> INSERT INTO DEPT
  2  VALUES(60,'CARGO','MUMBAI');

1 row created.
```

```
SQL> INSERT INTO DEPT
  2  VALUES(70,'COURIER','DELHI');

1 row created.

SQL> SAVEPOINT DEPTINS;

SQL> SAVEPOINT EMPDEL;

Savepoint created.

SQL> DELETE FROM EMPLOYEES
  2  WHERE EMPNO=7654;

1 row deleted.

SQL> COMMIT TO SAVEPOINT EMPDEL;
COMMIT TO SAVEPOINT EMPDEL
        *
ERROR at line 1:
ORA-02185: a token other than WORK follows COMMIT


SQL> ROLLBACK TO SAVEPOINT EMPDEL;

Rollback complete.

SQL> ROLLBACK TO SAVEPOINT EMPUPD;

Rollback complete.

SQL> SELECT * FROM DEPT;

DEPTNO DNAME          LOC
------ -------------- -------------
    10 ACCOUNTING     NEW YORK
    20 RESEARCH       DALLAS
    30 SALES          CHICAGO

SQL> ROLLBACK TO SAVEPOINT DEPTDEL;

Rollback complete.

SQL> SELECT * FROM DEPT;

DEPTNO DNAME          LOC
------ -------------- -------------
    10 ACCOUNTING     NEW YORK
    20 RESEARCH       DALLAS
    30 SALES          CHICAGO
    40 OPERATIONS     BOSTON

SQL>
```

```
SQL> SELECT * FROM EMP;

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7900 JAMES  CLERK      7698 03-DEC-81   950          30
 7369 SMITH  CLERK      7902 17-DEC-80   800          20
 7499 ALLEN  SALESMAN   7698 20-FEB-81  1600   300    30
 7521 WARD   SALESMAN   7698 22-FEB-81  1250   500    30
 7566 JONES  MANAGER    7839 02-APR-81  2975          20
 7654 MARTIN SALESMAN   7698 28-SEP-81  1250  1400    30
 7698 BLAKE  MANAGER    7839 01-MAY-81  2850          30
 7782 CLARK  MANAGER    7839 09-JUN-81  2450          10
 7788 SCOTT  ANALYST    7566 19-APR-87  3000          20
 7839 KING   PRESIDENT       17-NOV-81  5000          10
 7844 TURNER SALESMAN   7698 08-SEP-81  1500     0    30

EMPNO ENAME  JOB         MGR HIREDATE    SAL  COMM DEPTNO
----- ------ ---------- ----- --------- ----- ----- ------
 7876 ADAMS  CLERK      7788 23-MAY-87  1100          20
 7902 FORD   ANALYST    7566 03-DEC-81  3000          20
 7934 MILLER CLERK      7782 23-JAN-82  1300          10

14 rows selected.

SQL> ROLLBACK TO SAVEPOINT DEPTINS;

Rollback complete.


SQL> CL SCR

SQL> ----ALTERING THE TABLE-----
SQL> CREATE TABLE SAMPLEALT01
  2  (
  3  SAMPID NUMBER(2)
  4  );

Table created.

SQL> ALTER TABLE SAMPLEALT01
  2  ADD
  3  (
  4  SAMPNAME VARCHAR2(10)
  5  DEFAULT 'NOT GIVEN'
  6  CONSTRAINT SAMPLEALT01_SAMPNAME_NN NOT NULL
  7  CONSTRAINT SAMPLEALT01_SAMPNAME_UNQ UNIQUE
  8  CONSTRAINT SAMPLEALT01_SAMPNAME_CHK
  9  CHECK(SAMPNAME=UPPER(SAMPNAME)),
 10  SAMPDATE  DATE
 11  DEFAULT SYSDATE
 12  CONSTRAINT SAMPLEALT01_SAMPDATE_NN NOT NULL,
 13  CONSTRAINT SAMPLEALT01_SAMPID_PK PRIMARY KEY(SAMPID)
 14  );
```

```
Table altered.

SQL> DESC SAMPLEALT01;
 Name                                       Null?     Type
 ------------------------------------------ -------- ---------------------
-------
 SAMPID                                     NOT NULL NUMBER(2)
 SAMPNAME                                   NOT NULL VARCHAR2(10)
 SAMPDATE                                   NOT NULL DATE

SQL> ALTER TABLE SAMPLEALT01
  2  MODIFY
  3  (
  4  SAMPNAME VARCHAR2(20)
  5  );

Table altered.

SQL> DESC SAMPLEALT01;
 Name                                       Null?     Type
 ------------------------------------------ -------- ---------------------
-------
 SAMPID                                     NOT NULL NUMBER(2)
 SAMPNAME                                   NOT NULL VARCHAR2(20)
 SAMPDATE                                   NOT NULL DATE

SQL> ----DROPPING A COLUMN----
SQL>
SQL> ALTER TABLE SAMPLEALT01
  2  DROP COLUMN(SAMPNAME,SAMPDATE);
DROP COLUMN(SAMPNAME,SAMPDATE)
          *
ERROR at line 2:
ORA-00904: : invalid identifier


SQL> ALTER TABLE SAMPLEALT01
  2  DROP COLUMN SAMPNAME;

Table altered.

SQL> CREATE TABLE SAMPLEALT02
  2  (
  3  SAMPID NUMBER(2),
  4  SAMPNAME VARCHAR2(10),
  5  SAMPDATE  DATE,
  6  SAMPDESC VARCHAR2(100),
  7  TRDONEBY VARCHAR2(30)
  8  );

Table created.

SQL> ALTER TABLE SAMPLEALT02
  2  SET UNUSED (SAMPDESC,TRDONEBY,SAMPDATE);
```

```
Table altered.

SQL> ALTER TABLE SAMPLEALT02
  2  DROP UNUSED COLUMNS;

Table altered.

SQL> SELECT * FROM TAB;

TNAME                           TABTYPE   CLUSTERID
------------------------------- ------- ----------
BONUS                           TABLE
CUSTOMER                        TABLE
DEPT                            TABLE
EMP                             TABLE
EMPLOYEES                       TABLE
EMP_SUM                         TABLE
ITEM                            TABLE
MYEMP01                         TABLE
ORD                             TABLE
PRICE                           TABLE
PRODUCT                         TABLE

TNAME                           TABTYPE   CLUSTERID
------------------------------- ------- ----------
SALGRADE                        TABLE
SAMPDEPT01                      TABLE
SAMPDEPT02                      TABLE
SAMPDEPT03                      TABLE
SAMPDEPT04                      TABLE
SAMPDEPT05                      TABLE
SAMPLE                          TABLE
SAMPLEALT01                     TABLE
SAMPLEALT02                     TABLE

20 rows selected.

SQL> DROP TABLE SAMPDEPT01;

Table dropped.

SQL> SELECT * FROM TAB;

TNAME                           TABTYPE   CLUSTERID
------------------------------- ------- ----------
BIN$L2y6nSgQRamLTNXbggu1zg==$0 TABLE
BONUS                           TABLE
CUSTOMER                        TABLE
DEPT                            TABLE
EMP                             TABLE
EMPLOYEES                       TABLE
EMP_SUM                         TABLE
ITEM                            TABLE
```

```
MYEMP01                         TABLE
ORD                             TABLE
PRICE                           TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------- -------- ----------
PRODUCT                         TABLE
SALGRADE                        TABLE
SAMPDEPT02                      TABLE
SAMPDEPT03                      TABLE
SAMPDEPT04                      TABLE
SAMPDEPT05                      TABLE
SAMPLE                          TABLE
SAMPLEALT01                     TABLE
SAMPLEALT02                     TABLE

20 rows selected.

SQL> DROP TABLE SAMPDEPT02;

Table dropped.

SQL> SELECT * FROM TAB;

TNAME                           TABTYPE  CLUSTERID
------------------------------- -------- ----------
BIN$L2y6nSgQRamLTNXbggu1zg==$0  TABLE
BIN$RpkxkkNpQzGGBmHMV/Yt/g==$0  TABLE
BONUS                           TABLE
CUSTOMER                        TABLE
DEPT                            TABLE
EMP                             TABLE
EMPLOYEES                       TABLE
EMP_SUM                         TABLE
ITEM                            TABLE
MYEMP01                         TABLE
ORD                             TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------- -------- ----------
PRICE                           TABLE
PRODUCT                         TABLE
SALGRADE                        TABLE
SAMPDEPT03                      TABLE
SAMPDEPT04                      TABLE
SAMPDEPT05                      TABLE
SAMPLE                          TABLE
SAMPLEALT01                     TABLE
SAMPLEALT02                     TABLE

20 rows selected.

SQL> PURGE RECYCLEBIN;
```

```
Recyclebin purged.

SQL> SELECT * FROM TAB;

TNAME                            TABTYPE   CLUSTERID
------------------------------   -------   ----------
BONUS                            TABLE
CUSTOMER                         TABLE
DEPT                             TABLE
EMP                              TABLE
EMPLOYEES                        TABLE
EMP_SUM                          TABLE
ITEM                             TABLE
MYEMP01                          TABLE
ORD                              TABLE
PRICE                            TABLE
PRODUCT                          TABLE

TNAME                            TABTYPE   CLUSTERID
------------------------------   -------   ----------
SALGRADE                         TABLE
SAMPDEPT03                       TABLE
SAMPDEPT04                       TABLE
SAMPDEPT05                       TABLE
SAMPLE                           TABLE
SAMPLEALT01                      TABLE
SAMPLEALT02                      TABLE

18 rows selected.

SQL> DROP TABLE SAMPDEPT03 PURGE;

Table dropped.

SQL> DROP TABLE DEPT;
DROP TABLE DEPT
           *
ERROR at line 1:
ORA-02449: unique/primary keys in table referenced by foreign keys


SQL> RENAME DEPT TO DEPARTMENTS;

Table renamed.

SQL> SELECT * FROM DEPT;
SELECT * FROM DEPT
              *
ERROR at line 1:
ORA-00942: table or view does not exist


SQL> RENAME DEPARTMENTS TO DEPT;
```

```
Table renamed.

SQL> --TRUNCATING A TABLE--
SQL> CREATE TABLE SAMPLETRUNC
  2  (
  3  SAMPID NUMBER(2),
  4  SAMPNAME VARCHAR2(10),
  5  SAMPDATE DATE
  6  );

Table created.

SQL> BEGIN
  2  INSERT INTO SAMPLETRUNC
  3  VALUES(1,'SAMPLE01',SYSDATE);
  4  INSERT INTO SAMPLETRUNC
  5  VALUES(2,'SAMPLE02',SYSDATE);
  6  INSERT INTO SAMPLETRUNC
  7  VALUES(3,'SAMPLE03',SYSDATE);
  8  INSERT INTO SAMPLETRUNC
  9  VALUES(4,'SAMPLE04',SYSDATE);
 10  INSERT INTO SAMPLETRUNC
 11  VALUES(5,'SAMPLE05',SYSDATE);
 12  COMMIT;
 13  END;
 14  /

PL/SQL procedure successfully completed.

SQL> SELECT * FROM SAMPLETRUNC;

    SAMPID SAMPNAME   SAMPDATE
---------- ---------- ---------
         1 SAMPLE01   09-JAN-24
         2 SAMPLE02   09-JAN-24
         3 SAMPLE03   09-JAN-24
         4 SAMPLE04   09-JAN-24
         5 SAMPLE05   09-JAN-24

SQL> SELECT ROWID, SAMPID, SAMPNAME, SAMPDATE FROM SAMPLETRUNC;

ROWID                  SAMPID SAMPNAME   SAMPDATE
------------------ ---------- ---------- ---------
AAASpfAAEAAAAIcAAA          1 SAMPLE01   09-JAN-24
AAASpfAAEAAAAIcAAB          2 SAMPLE02   09-JAN-24
AAASpfAAEAAAAIcAAC          3 SAMPLE03   09-JAN-24
AAASpfAAEAAAAIcAAD          4 SAMPLE04   09-JAN-24
AAASpfAAEAAAAIcAAE          5 SAMPLE05   09-JAN-24

SQL> DELETE FROM SAMPLETRUNC
  2  WHERE SAMPID >3;

2 rows deleted.
```

```
SQL> SELECT ROWID, SAMPID, SAMPNAME, SAMPDATE FROM SAMPLETRUNC;

ROWID                SAMPID SAMPNAME   SAMPDATE
------------------ ---------- ---------- ---------
AAASpfAAEAAAAIcAAA          1 SAMPLE01   09-JAN-24
AAASpfAAEAAAAIcAAB          2 SAMPLE02   09-JAN-24
AAASpfAAEAAAAIcAAC          3 SAMPLE03   09-JAN-24

SQL> COMMIT;

Commit complete.

SQL> INSERT INTO SAMPLETRUNC
  2  VALUES(10, 'SAMPLE10', SYSDATE);

1 row created.

SQL> COMMIT;

Commit complete.

SQL> SELECT ROWID, SAMPID, SAMPNAME, SAMPDATE FROM SAMPLETRUNC;

ROWID                SAMPID SAMPNAME   SAMPDATE
------------------ ---------- ---------- ---------
AAASpfAAEAAAAIcAAA          1 SAMPLE01   09-JAN-24
AAASpfAAEAAAAIcAAB          2 SAMPLE02   09-JAN-24
AAASpfAAEAAAAIcAAC          3 SAMPLE03   09-JAN-24
AAASpfAAEAAAAIcAAF         10 SAMPLE10   09-JAN-24

SQL> TRUNCATE TABLE SAMPLETRUNC;

Table truncated.

SQL> SPOOL OFF
```