```
create or replace trigger trig10 before insert on football for each row
begin
        dbms_output.put_line(:new.tname);
        dbms_output.put_line('New Record Added. Thank You');
end;
/


-------------------------------------------------------------------------
create or replace trigger trigg11 before insert on stock for each row
begin
        if :new.company is null then
                :new.company:='Lenovo';
        end if;
end;
/
-------------------------------------------------------------------------
create or replace trigger trig12 before insert on products for each row
begin
        if :new.price<0 then
                :new.price:=abs(:new.price);
        end if;
end;
/
-------------------------------------------------------------------------
create or replace trigger trig13 after insert on products for each row
begin
        insert into products3 values(:new.pno,:new.price);
end;
/


-------------------------------------------------------------------------
create or replace trigger trig14 before delete on products for each row
begin
        dbms_output.put_line(:old.pno || ',,' || :old.price);
end;
/
-------------------------------------------------------------------------
create or replace trigger trig15 before update on exam for each row
begin
        dbms_output.put_line('Exam table updated');
end;
/
-------------------------------------------------------------------------
create or replace trigger trig16  before update of m1 on exam for each row
begin
        dbms_output.put_line('Col M1 updated');
end;
/
-------------------------------------------------------------------------
create or replace trigger trig17 before update of m1  on exam for each row
```

```
when(new.m1>100)
begin
        dbms_output.put_line('Marks can not be more than 100');
end;
/
```

SQL*Plus: Release 10.2.0.1.0 - Production on Tue Dec 23 08:37:51 2025

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```
SQL> connect
Enter user-name: prince
Enter password:
Connected.
SQL> ed c:/oracle/trig1.sql

SQL> ed c:/oracle/trig10.sql

SQL> select * from ta;
select * from ta
              *
ERROR at line 1:
ORA-00942: table or view does not exist


SQL> select * from tab;
```

TNAME	TABTYPE	CLUSTERID
ESTUDENTS	TABLE	
ATTENDANCE	TABLE	
DEPT	TABLE	
EMPL	TABLE	
STUDENT	TABLE	
DOCTORS	TABLE	
PATIENTS	TABLE	
DEVELOPERS	TABLE	
SQUARES	TABLE	
EMPLOYEES	TABLE	
CUSTOMERS3	TABLE	

TNAME	TABTYPE	CLUSTERID
CUSTOMERS	TABLE	
CUSTOMERS2	TABLE	
CUSTOMERS4	TABLE	
CUSTOMERS5	TABLE	

```
CUSTOMERS6                      TABLE
CUSTOMERS7                      TABLE
CUST10                          TABLE
PRODUCTS                        TABLE
PRODUCTS2                       TABLE
ACCOUNTS                        TABLE
EMP                             TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------  -------  ----------
MARKSHEET                       TABLE
BILL                            TABLE
TRAINS                          TABLE
CRICKETERS                      TABLE
RESERVATION                     TABLE
WORKERS                         TABLE
SALARY                          TABLE
MEMBERS                         TABLE
BOOKS                           TABLE
ISSUE                           TABLE
EMPS                            TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------  -------  ----------
TEST                            TABLE
EXAM                            TABLE
SAMPLE                          TABLE
EMP1                            TABLE
SAMPLE2                         TABLE
PARENT                          TABLE
CHILD                           TABLE
EMP2                            TABLE
CITIES                          TABLE
STOCK                           TABLE
SALES                           TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------  -------  ----------
RES2                            TABLE
FOOTBALL                        TABLE

46 rows selected.

SQL> ed c:/oracle/trig10.sql

SQL> ed c:/oracle/trig1.sql

SQL> ed c:/oracle/trig10.sql

SQL> @ c:/oracle/trig10.sql
```

```
Trigger created.

SQL> select * from football;

       TCD TNAME          SCORED    AGAINST
---------- ---------- ---------- ----------
         1 India            10          4
         2 Germany           9          6
         3 Brazil           12          8
         4 Spain             3         10
         5 Italy             8         12
         6 Japan             2          9

6 rows selected.

SQL> set serveroutput on
SQL> insert into football values(7,'China',1,2);
New Record Added. Thank You

1 row created.

SQL> ed c:/oracle/trig10.sql

SQL> insert into football values(8,'Aa',1,2);
New Record Added. Thank You

1 row created.

SQL> create table football2 as select * from football;

Table created.

SQL> select * from football2;

       TCD TNAME          SCORED    AGAINST
---------- ---------- ---------- ----------
         1 India            10          4
         2 Germany           9          6
         3 Brazil           12          8
         4 Spain             3         10
         5 Italy             8         12
         6 Japan             2          9
         7 China             1          2
         8 Aa                1          2

8 rows selected.

SQL> insert into football (select * from football2);
New Record Added. Thank You
```

```
New Record Added. Thank You
New Record Added. Thank You
New Record Added. Thank You
New Record Added. Thank You
New Record Added. Thank You
New Record Added. Thank You
New Record Added. Thank You

8 rows created.

SQL> ed c:/oracle/trig10.sql

SQL> @ c:/oracle/trig10.sql

Trigger created.

SQL> insert into football (select * from football2);
New Record Added. Thank You

8 rows created.

SQL> ed c:/oracle/trig10.sql

SQL> @ c:/oracle/trig10.sql
create or replace trigger trig10 before insert on football
                                *
ERROR at line 1:
ORA-04082: NEW or OLD references not allowed in table level triggers


SQL> ed c:/oracle/trig10.sql

SQL> @ c:/oracle/trig10.sql

Trigger created.

SQL> insert into football values(9,'X',3,4);
X
New Record Added. Thank You

1 row created.

SQL> ed c:/oracle/trig10.sql

SQL> select * from tab;

TNAME                          TABTYPE  CLUSTERID
------------------------------ ------- ----------
ESTUDENTS                      TABLE
ATTENDANCE                     TABLE
```

```
DEPT                            TABLE
EMPL                            TABLE
STUDENT                         TABLE
DOCTORS                         TABLE
PATIENTS                        TABLE
DEVELOPERS                      TABLE
SQUARES                         TABLE
EMPLOYEES                       TABLE
CUSTOMERS3                      TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------ ------- ----------
CUSTOMERS                       TABLE
CUSTOMERS2                      TABLE
CUSTOMERS4                      TABLE
CUSTOMERS5                      TABLE
CUSTOMERS6                      TABLE
CUSTOMERS7                      TABLE
CUST10                          TABLE
PRODUCTS                        TABLE
PRODUCTS2                       TABLE
ACCOUNTS                        TABLE
EMP                             TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------ ------- ----------
MARKSHEET                       TABLE
BILL                            TABLE
FOOTBALL2                       TABLE
TRAINS                          TABLE
CRICKETERS                      TABLE
RESERVATION                     TABLE
WORKERS                         TABLE
SALARY                          TABLE
MEMBERS                         TABLE
BOOKS                           TABLE
ISSUE                           TABLE

TNAME                           TABTYPE  CLUSTERID
------------------------------ ------- ----------
EMPS                            TABLE
TEST                            TABLE
EXAM                            TABLE
SAMPLE                          TABLE
EMP1                            TABLE
SAMPLE2                         TABLE
PARENT                          TABLE
CHILD                           TABLE
EMP2                            TABLE
CITIES                          TABLE
```

```
STOCK                          TABLE

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------- ----------
SALES                          TABLE
RES2                           TABLE
FOOTBALL                       TABLE

47 rows selected.

SQL> select * from cities;

no rows selected

SQL> desc cities;
 Name                                      Null?    Type
 ----------------------------------------- -------- -----------------------------
 NAME                                               VARCHAR2(10)

SQL> select * from stock;

    PRODCD NAME       COMPANY
---------- ---------- ----------
       101 Monitor    Samsung
       102 Printer    Epson
       103 Mouse      Logitech
       104 Processor  AMD
       105 Scanner    HP

SQL> ed c:/oracle/trig11.sql

SQL> @ c:/oracle/trig11.sql

Trigger created.

SQL> insert into stock values(106,'Laptop',null);

1 row created.

SQL> select * from stock;

    PRODCD NAME       COMPANY
---------- ---------- ----------
       101 Monitor    Samsung
       102 Printer    Epson
       103 Mouse      Logitech
       104 Processor  AMD
       105 Scanner    HP
       106 Laptop     Lenovo
```

```
6 rows selected.

SQL> ed c:/oracle/trig11.sql

SQL> select * from sales;

       PNO CNAME
---------- ----------
       101 A
       104 D

SQL> select * from marks;
select * from marks
              *
ERROR at line 1:
ORA-00942: table or view does not exist


SQL> select * from marksheet;

    ROLLNO         M1         M2         M3      TOTAL         AV
---------- ---------- ---------- ---------- ---------- ----------
       101         60         70         80        210 156.666667
       102         40         50         60        150        110
       103         60         70         80        210         70

SQL> select * from products;

       PNO      PRICE
---------- ----------
         1      10000
         1   10000.54

SQL> ed c:/oracle/trig12.sql

SQL> select abs(-20) from dual;

  ABS(-20)
----------
        20

SQL> ed c:/oracle/trig12.sql

SQL>
SQL> ed c:/oracle/trig12.sql

SQL> @ c:/oracle/trig12.sql

Warning: Trigger created with compilation errors.
```

```
SQL> show err
Errors for TRIGGER TRIG12:

LINE/COL ERROR
-------- --------------------------------------------------------------------
2/17     PLS-00103: Encountered the symbol ":" when expecting one of the
         following:
         * & - + / at mod remainder rem then <an exponent (**)> and or
         || multiset
         The symbol "then was inserted before ":" to continue.

SQL> ed c:/oracle/trig12.sql

SQL> @ c:/oracle/trig12.sql

Trigger created.

SQL> insert into products values(2,-100);

1 row created.

SQL> select * from products;

       PNO       PRICE
---------- ----------
         1       10000
         1    10000.54
         2         100

SQL> ed c:/oracle/trig11.sql

SQL> create table products2 as select * from products;
create table products2 as select * from products
             *
ERROR at line 1:
ORA-00955: name is already used by an existing object


SQL> create table products3 as select * from products;

Table created.

SQL> ed c:/oracle/trig11.sql

SQL> @ c:/oracle/trig11.sql
create or replace trigger trigg11 after insert on stock for each row
                              *
ERROR at line 1:
ORA-04084: cannot change NEW values for this trigger type
```

```
SQL> ed c:/oracle/trig11.sql

SQL> ed c:/oracle/trig13.sql

SQL> @ c:/oracle/trig13.sql

Trigger created.

SQL> insert into products values(9,400);

1 row created.

SQL> select * from products3;

       PNO       PRICE
---------- ----------
         1       10000
         1    10000.54
         2         100
         9         400

SQL> ed c:/oracle/trig13.sql

SQL> ed c:/oracle/trig14.sql

SQL> @ c:/oracle/trig14.sql

Trigger created.

SQL> delete from products where pno=1;
1,,10000
1,,10000.54

2 rows deleted.

SQL> ed c:/oracle/trig14.sql

SQL> select * from tab;

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------- ----------
ESTUDENTS                      TABLE
ATTENDANCE                     TABLE
DEPT                           TABLE
EMPL                           TABLE
STUDENT                        TABLE
DOCTORS                        TABLE
PATIENTS                       TABLE
DEVELOPERS                     TABLE
```

```
SQUARES                        TABLE
EMPLOYEES                      TABLE
CUSTOMERS3                     TABLE

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------  ----------
CUSTOMERS                      TABLE
CUSTOMERS2                     TABLE
CUSTOMERS4                     TABLE
CUSTOMERS5                     TABLE
CUSTOMERS6                     TABLE
CUSTOMERS7                     TABLE
CUST10                         TABLE
PRODUCTS                       TABLE
PRODUCTS2                      TABLE
ACCOUNTS                       TABLE
EMP                            TABLE

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------  ----------
MARKSHEET                      TABLE
BILL                           TABLE
FOOTBALL2                      TABLE
PRODUCTS3                      TABLE
TRAINS                         TABLE
CRICKETERS                     TABLE
RESERVATION                    TABLE
WORKERS                        TABLE
SALARY                         TABLE
MEMBERS                        TABLE
BOOKS                          TABLE

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------  ----------
ISSUE                          TABLE
EMPS                           TABLE
TEST                           TABLE
EXAM                           TABLE
SAMPLE                         TABLE
EMP1                           TABLE
SAMPLE2                        TABLE
PARENT                         TABLE
CHILD                          TABLE
EMP2                           TABLE
CITIES                         TABLE

TNAME                          TABTYPE  CLUSTERID
------------------------------ -------  ----------
STOCK                          TABLE
SALES                          TABLE
```

```
RES2                            TABLE
FOOTBALL                        TABLE

48 rows selected.

SQL> select * from exam;

    ADMNO      ROLLNO        M1
---------- ---------- ----------
         1        101        56
         2        101        56
         1        102        56
         1        101        56

SQL> ed c:/oracle/trig15.sql

SQL> @ c:/oracle/trig15.sql

Trigger created.

SQL> update exam set rollno=103 where admno=2;
Exam table updated

1 row updated.

SQL> update exam set m1=10 where admno=2;
Exam table updated

1 row updated.

SQL> ed c:/oracle/trig15.sql

SQL> ed c:/oracle/trig16.sql

SQL> @ c:/oracle/trig16.sql

Trigger created.

SQL> update exam set rollno=101 where admno=2;
Exam table updated

1 row updated.

SQL> update exam set m1=10 where admno=2;
Col M1 updated
Exam table updated

1 row updated.

SQL> ed c:/oracle/trig16.sql
```

```
SQL> ed c:/oracle/trig17.sql

SQL> @ c:/oracle/trig17.sql

Trigger created.

SQL> select * from exam;

     ADMNO     ROLLNO         M1
---------- ---------- ----------
         1        101         56
         2        101         10
         1        102         56
         1        101         56

SQL> update exam set m1=70 where rollno=101;
Col M1 updated
Exam table updated
Col M1 updated
Exam table updated
Col M1 updated
Exam table updated

3 rows updated.

SQL> update exam set m1=700 where rollno=101;
Marks can not be more than 100
Col M1 updated
Exam table updated
Marks can not be more than 100
Col M1 updated
Exam table updated
Marks can not be more than 100
Col M1 updated
Exam table updated

3 rows updated.

SQL> ed c:/oracle/trig17.sql

SQL> select * from exam;

     ADMNO     ROLLNO         M1
---------- ---------- ----------
         1        101        700
         2        101        700
         1        102         56
         1        101        700
```

```
SQL> ed c:/oracle/trig17.sql

SQL> select * from empl;

    EMPID EMPNAME        DEPTID     SALARY
---------- ---------- ---------- ----------
      101 A                  10      30000
      102 B                  10      60000
      103 C                  20      20000
      104 D                  30      15000
      105 E                  10       5000

SQL> create table emp10 as select * from emp1;

Table created.

SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig18.sql
when(new.sal<old.sal)
          *
ERROR at line 2:
ORA-00904: "SAL": invalid identifier


SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig18.sql

Trigger created.

SQL> select * from emp10;

    EMPNO NAME          SALARY
---------- ---------- ----------
        1 A               5000

SQL> select * from emp1;

    EMPNO NAME          SALARY
---------- ---------- ----------
        1 A               5000

SQL> update emp10 set salary=6000 where empno=1;

1 row updated.

SQL> select * from emp1;

    EMPNO NAME              SALARY
```

```
          ---------- ---------- ----------
          1 A               5000

SQL> select * from emp10;

     EMPNO NAME           SALARY
---------- ---------- ----------
         1 A               6000

SQL> update emp10 set salary=2000 where empno=1;
Salary can not be decreased

1 row updated.

SQL> select * from emp10;

     EMPNO NAME           SALARY
---------- ---------- ----------
         1 A               2000

SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig18.sql

Warning: Trigger created with compilation errors.

SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig18.sql

Trigger created.

SQL> update emp10 set salary=2000 where empno=1;

1 row updated.

SQL> update emp10 set salary=1000 where empno=1;
update emp10 set salary=1000 where empno=1
            *
ERROR at line 1:
ORA-21000: error number argument to raise_application_error of 20001 is out of
range
ORA-06512: at "PRINCE.TRIG18", line 3
ORA-04088: error during execution of trigger 'PRINCE.TRIG18'


SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig18.sql
```

```
Trigger created.

SQL> update emp10 set salary=200 where empno=1;
update emp10 set salary=200 where empno=1
            *
ERROR at line 1:
ORA-20001: Can not be decreased
ORA-06512: at "PRINCE.TRIG18", line 3
ORA-04088: error during execution of trigger 'PRINCE.TRIG18'


SQL> ed c:/oracle/trig18.sql

SQL> ed c:/oracle/trig18.sql

SQL> @ c:/oracle/trig14.sql

Trigger created.

SQL> ed c:/oracle/trig14.sql

SQL> ed c:/oracle/trig15.sql

SQL> ed c:/oracle/trig13.sql

SQL> ed c:/oracle/trig7.sql

SQL> ed c:/oracle/trig10.sql
```