DML(Data Manipulation Language)

DML; manipulations on data(records)

>>insertion

>>deletion

>>updation

commands

INSERT

DELETE

UPDATE

INSERT

>>Inserting of row(s) into the table.

Syntax

Insert into <table> [ (col1,col2,...) ] values (val1,val2,val3,...);

STU

SNO NAME CLASS MOBILE EMAIL CITY

CREATE TABLE STU1(SNO NUMBER(5) PRIMARY KEY,NAME VARCHAR2(15) NOT NULL,

COURSE CHAR(10) CHECK ( COURSE IN('ECE','CIVIL','MECH','CSE')),

dob date,EMAIL VARCHAR2(14) );

to insert a row with all columns

ex: insert into stu values (105,'SREE,'ECE',7890123499,'avesh@gmail.com','HYD');

ADDING A COLUMN TO THE TABLE

>>Alter table stu add(dob date);

ALTER TABLE STU ADD(EMAIL VARCHAR2(14) );

TO view the data in a table we use select

select \* from stu;

>>To insert a row with SPECIFIED columns

INSERT INTO STU (SNO,NAME,CLASS,MOBILE,email)

values(103,'DIVYA','CSE',7098440279,'diva@gmail.com');

Inserting rows at run time

ex: insert into stu values (&sno,'&Sname','&Class',&mobile,'&email','&city');

insert into student values (102,'RAVI','ECE');

check constraint (SCOTT.SYS\_C005211) violated

insert into student values (301,'RAVI','ECE');

insert into stu(sno,name,email,class) values (&sno,'&name','&email','&Class');

TO INSERT record at runtime &

insert into student values (&sno,'&Sname','&class','&dob');

SQL> insert into student values (&sno,'&name','&cOURSE','&dob');

Enter value for sno: 1111

Enter value for name: AAA

Enter value for course: CIVIL

Enter value for dob: 12-JAN-2000

old 1: insert into student values (&sno,'&name','&cOURSE','&dob')

new 1: insert into stu values (1111,'NAVEEN','CIVIL','12-JAN-2000')

To insert the record(s) from an existing table

>>INSERT into <table> select statement;

\*\*\*\*creating table with same structure without records \*\*\*\*

create table BKUPstud as select \* from stu1 WHERE COURSE='MECH';

select \*from studup;

inserting records from stu table

insert into studup SELECT \* FROM STU [WHERE SNO=101];

UPDATE

>>To update a row(S) of a table

Syntax;

update <table> set col1=val1 [ , col2=val2 , ...] [where <cond>];

Ex:

>>TO UPDATE THE cLASS as CIVIL to all

UPDATE STU SET CLASS='EEE' ;

>>TO update the class to 101

update stu set class='EEE' WHERE SNO=101;

ex : to update the dob as 16-05-1998,mobile of student no 104

update stu set dob='16-may-98',mobile=9876543210 where sno=101;

>>change the name of the student no 105 to VIJAY

UPDATE STUDENT SET DOB='10-JAN-1998' WHERE SNO=102;

update student set COURSE='MECH' WHERE SNO=102;

ADDING A COL CITY TO THE STUDENT TABLE

ALTER TABLE STU modify(CITY CHAR(12));

to update CITY to all the students as HYD

UPDATE STU SET CITY='HYD';

UPDATE STU SET CITY='KHM',CLASS='ECE' WHERE SNO=102;

7 rows updated.

UPDATE STU SET sno=111 whrere SNO=102;

TO update city to RAVI as BZA

update student set city='BDCHM' where Sname='KUMAR';

TO UPDATE MULTIPLE COLUMNS

class CSE DOB as 03-05-98

update student set dob='03-may-98' ,COURSE='CSE' where sno=101;

to update the values at runtime

update stu set dob='&dob' ,email='&email' where sno=&sno;

TO UPDATE CITY TO specified records

update stu set city=' ' WHERE SNO=777;

DELETE

to delete record(S) from the table

syntax:

delete from <table> [where <cond>];

ex:TO DELETE all the rows from table

DELETE FROM STU;

specified:

DELETE FROM STU WHERE SNO=108;

to delete all the rows from exam table

delete from STUDENT;

to delete the 101 record from the exam

delete from STUDENT where sno=111;

DELETE VS drop

prog,end user dba,designer

temp permanant

undo no undo(permanant)

onlyrecords all records,columns and table delete

update vs ALTER

DML DDL

RECORDS structure

temp permanant

need commit to save no need

TCL

Transaction control lang

DML cannot save the data directly.To save or uno we need to use TCL

to save or undo the transaction(INSERT,UPDATE,DELETE)

COMMANDS

COMMIT to save permanantly

ROLLBACK to undo the transaction

SAVEPOINT book mark

start

commit;

insert 5 records

update 3 records

savepoint a;

insert 2 records

rollback to a;

savepoint TRANS2;

dept

commit;

insert 2 records

update 1 record

savepoint a;

delete 2 records

rollback to a;

insert into dept values (50,'MGMT','HYD');

insert into dept values (60,'HR','DEL');

UPDATE DEPT SET DNAME='ADMIN' WHERE DEPTNO=60;

SAVEPOINT A;

DELETE FROM DEPT WHERE DEPTNO=50;

SQL> select \* from dept;

DEPTNO DNAME LOC

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60 ADMIN DEL

10 ACCOUNTING NEW YORK

20 RESEARCH DALLAS

30 SALES CHICAGO

40 OPERATIONS BOSTON

ROLLBACK TO A;

DEPTNO DNAME LOC

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50 MGMT HYD

60 ADMIN DEL

10 ACCOUNTING NEW YORK

20 RESEARCH DALLAS

30 SALES CHICAGO

40 OPERATIONS BOSTON

rollback;

DCL

Data Control language DBA

GRANT give permissions to the users

REVOKE take back permissions from the users

Grant <permissions> to <user>;

ex:

grant dba to scott;

Revoke <permissions> from <user>;

ex:

Revoke dba from scott;

BANK (ACNO,NAME,ACTYPE ,BALANCE)