**Referential Integrity**

**When records are present in the parent and the child tables then by default the records from the parent tables cannot be deleted if the dependency exists in the child tables.**

create table student

(roll integer primary key,

name varchar(40));

create table result

(roll integer references student(roll),

marks integer);

insert into student values(1,'a');

insert into result values(1,78);

**delete from student; -- Error**

drop table result;

drop table student;

**On Delete Cascade – When the parent records are deleted then the corresponding child records will also get deleted.**

create table employees

(empid int primary key,

ename varchar(20),

designation varchar(30)

);

create table employees\_dependents

(empid int references employees On Delete Cascade,

Father\_Name Varchar(20),

Mother\_Name Varchar(20),

Spouse\_Name Varchar(20),

Number\_of\_Children int);

Insert into employees Values(1,'Smith','Developer');

Insert into employees Values(2,'Martin','Developer');

Insert into employees Values(3,'Roger','Project Manager');

Insert into employees\_dependents Values(1,'P','Q','R',2);

Insert into employees\_dependents Values(2,'J','K','L',1);

Insert into employees\_dependents Values(3,'M','N','O',2);

Select \* from employees;

Select \* from employees\_dependents;

-- Smith resigns. So, deleting his record from the parent table employees

Delete From employees where empid = 1;

-- Cross-check in the child table

Select \* from employees\_dependents;

**ON DELETE SET NULL 🡪When the master record is deleted then the related child table’s foreign key value becomes null and the record is intact.**

create table Managers

(Mgr Int Primary Key,

MName Varchar(10)

);

create table Developers

(DevID Int Primary Key,

DevName Varchar(10),

Mgr Int references Managers On Delete Set Null

);

Insert into Managers Values(1,'A');

Insert into Managers Values(2,'B');

Insert into Managers Values(3,'C');

Insert into Managers Values(4,'D');

Insert into Developers Values(101,'P',2);

Insert into Developers Values(102,'Q',3);

Insert into Developers Values(103,'R',2);

Insert into Developers Values(104,'S',1);

Insert into Developers Values(105,'T',4);

Insert into Developers Values(106,'V',3);

Select \* from Managers;

Select \* from Developers;

-- Manager Mr.B resigns

Delete From Managers

where Mgr = 2;

-- See the Developers table

Select \* from Developers;

**Dropping Parent Table when Relationship with Child Table is there:**

create table student(rollno number primary key,

name varchar2(20),

cell\_no number);

create table result(rollno number references student(rollno),

sem char, marks number);

**drop table student;**

**ORA-02449: unique/primary keys in table referenced by foreign keys**

**drop table student cascade constraints;**