**Problem Statement** :

Consider the relational database :

dept (dept-no, dname, LOC)

emp (emp-no, ename, designation,sal)

project (proj-no, proj-name, status)

dept and emp are related as 1 to many.

project and emp are related as 1 to many.

CREATE TABLE emp

(

eid int not null PRIMARY key,

name varchar(20) not null ,

desi VARCHAR(20) not null ,

sal FLOAT not null

);

CREATE TABLE dept

(

did int not null PRIMARY key,

name varchar(20) not null ,

LOC VARCHAR(20) not null

);

CREATE TABLE project

(

pid int not null PRIMARY key,

name varchar(20) not null,

status varchar(20) not null

);

CREATE TABLE empDept

(

eid int,

did int

);

CREATE TABLE empProject

(

eid int not null,

pid int not null,

FOREIGN key (eid) references emp(eid),

FOREIGN key (pid) references project(pid)

);

alter table empDept

add FOREIGN KEY (eid) references emp(eid);

alter table empDept

add FOREIGN KEY (did) references dept(did);

ALTER TABLE empDept

ADD CONSTRAINT pri\_key

PRIMARY KEY (eid,did)

insert into emp(eid,name,desi,sal)

values (1,"Ayan","Manager",20000),

(2,"Kalpit","Devloper",20000),

(3,"Maniya","Manager",20000),

(4,"Aniya","Devloper",20000),

(5,"Manas","Tester",20000),

(6,"Manasi","Tester",20000),

(7,"Deva","Manager",20000),

(8,"Dhananjay","Chaivala",20);

insert into dept(did,name,LOC)

values (1,"IT","Pune"),

(2,"INVENTORY","Pune"),

(3,"MARKETING","Nagpur");

insert into project(pid,name,status)

values (1,"blood","complete"),

(2,"Shopping","incomplete"),

(3,"Eannapurna","incomplete");

insert into empDept(eid,did)

values

(1,3),(2,3),(8,3),

(7,2),(4,2),(5,2),

(3,1),(6,1);

insert into empProject(eid,pid)

values

(1,1),(7,1),(5,1),

(8,2),(4,2),(5,2),

(3,3),(6,3);

1. List all employees of ‘INVENTORY’ department of ‘PUNE’ location

WITH SUB QUERY

select \* from emp where eid in

(

select eid from empDept as T,dept as D

where T.did = D.did and LOC = "Pune"

AND D.name = "INVENTORY";

);

WITH INNER JOIN

SELECT \* FROM emp AS E

INNER JOIN empDept AS ED ON E.eid = ED.eid

INNER JOIN dept AS D ON ED.did = D.did

WHERE D.LOC = "Pune";

AND D.name = "INVENTORY";

1. Give the names of employees who are working on ‘Blood Bank’ project.

WITH SUB QUERY

select E.name from emp as E where eid in

(

select eid

from empProject as T,project as P

where T.pid = P.pid and P.name = "blood"

);

WITH INNER JOIN

SELECT \* FROM emp AS E

INNER JOIN empProject AS EP ON E.eid = EP.eid

INNER JOIN project AS P ON EP.pid = P.pid

where P.name = "blood" ;

1. Give the name of managers from ‘MARKETING’ department.

WITH SUB QUERY

select \* from emp where desi = "Manager"

AND eid in

(

select eid from empDept as T,dept as D

where T.did = D.did

and D.name = "MARKETING"

);

WITH INNER JOIN

SELECT \* from emp as E

INNER join empDept as ED on E.eid = ED.eid

INNER JOIN dept as D on ED.did = D.did

Where E.desi = "Manager"

AND D.name = "MARKETING";

1. Give all the employees working under status ‘INCOMPLETE’ project

WITH SUB QUERY

select E.name from emp as E where eid in

(

select eid

from empProject as T,project as P

where T.pid = P.pid and P.status = "incomplete"

);

WITH INNER JOIN

SELECT \* FROM emp AS E

INNER JOIN empProject AS EP ON E.eid = EP.eid

INNER JOIN project AS P ON EP.pid = P.pid

where P.status = "incomplete" ;