NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY
(Autonomous Institution, Affiliated to VTU, Belgaum,
Approved by AICTE & State Govt. of Karnataka)
Yelahanka, Bengaluru – 560064

DEPARTMENT OF MCA

KNOWLEDGE ★ CHARACTER ★ UNITY

Database Management Systems (20MCA109L) LAB MANUAL2020-21

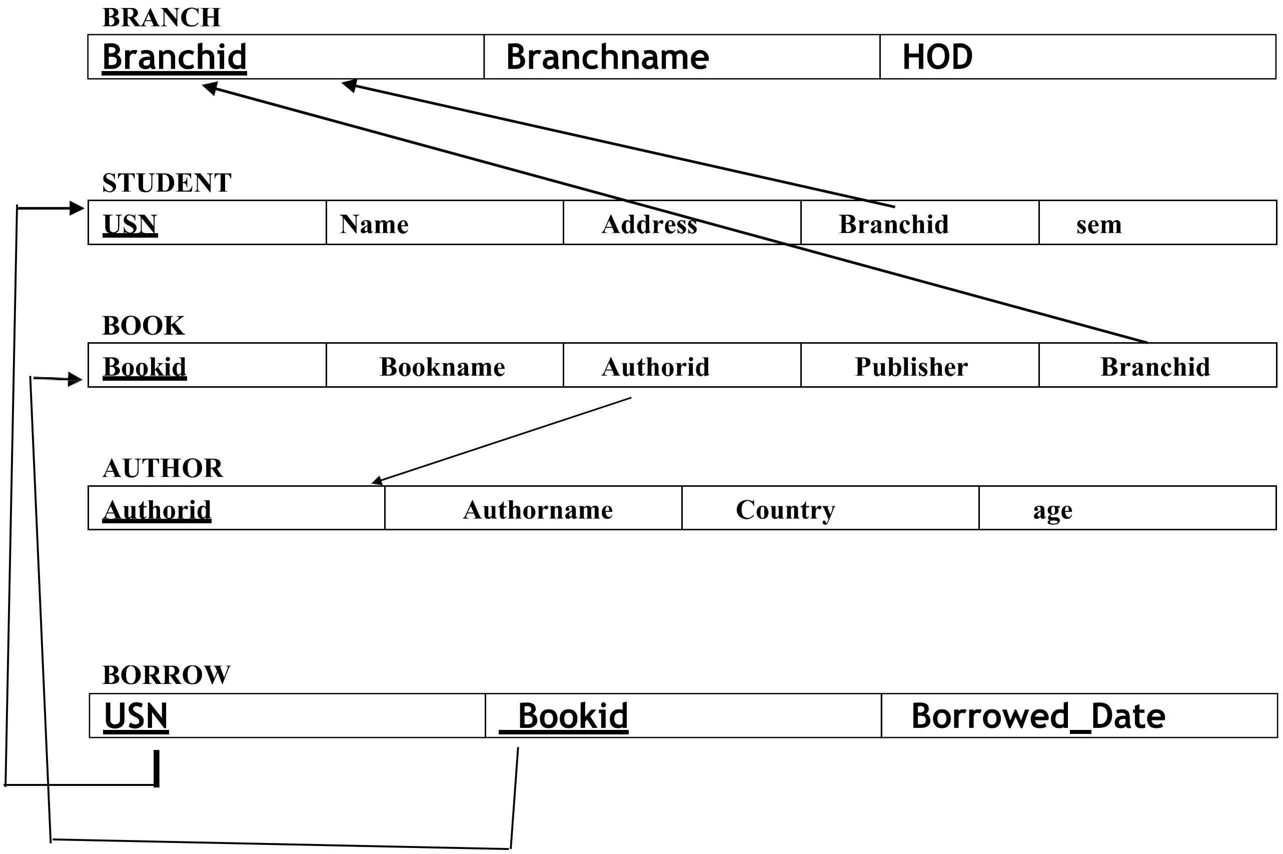
Program 1

Create the following tables with properly specifying Primary keys, Foreign keys and solve the following queries.

BRANCH(**Branchid**,Branchname,HOD)
STUDENT(**USN**,Name,Address,Branchid,sem)
BOOK(Bookid,Bookname,Authorid,Publisher,Branchid)
AUTHOR(Authorid,Authorname,Country,age)
BORROW(USN,Bookid,Borrowed_Date)

Queries:

1. List the details of Students who are all Studying in 2nd sem MCA.
2. List the students who are not borrowed any books.
3. Display the USN, Student name, Branch_name, Book_name, Author_name , Books_Borrowed_Date of 2nd sem MCA Students who borrowed books.
4. Display the number of books written by each Author.
5. Display the student details who borrowed more than two books.
6. Display the student details who borrowed books of more than one Author.
7. Display the Book names in descending order of their names.
8. List the details of students who borrowed the books which are all published by the same Publisher.



BRANCH

Branchid	Branchname	HOD

STUDENT

USN	Name	Address	Branchid	sem

BOOK

Bookid	Bookname	Authorid	Publisher	Branchid

AUTHOR

Authorid	Authorname	Country	age

BORROW

USN	Bookid	Borrowed_Date

```
create table branch (branchid int primary key,bname varchar(10), hod varchar(10));

create table student(usn varchar(10) primary key, name varchar(10),addr varchar(15),
branchid int references branch(branchid), sem int);

create table author (authorid int primary key,aname varchar(10), country varchar(10), age int);

create table book (bookid int primary key, bname varchar(10),authorid int references author(authorid),
publisher varchar(10),branchid int references branch(branchid));

create table borrow(usn varchar(10) references student(usn), bookid int references book(bookid),
borrowdate date);
```

```
SQL> select * from branch;

BRANCHID BNAME          HOD
-------- ----------     ----------
       1 mca            npk
       2 mba            bojanna
       3 cse            gtr
       4 ise            sudhamani
       5 electrical     sumathi
```

```
SQL>   select * from          student;
USN           NAME          ADDR               BRANCHID      SEM
---------------------------------------------  ----------    ----------
1rn1          harish        bangalore          1             2
1rn2          bharath       mysore             2             3
1rn3          kiran         delhi              3             6
1rn4          mahi          chennai            4             7
1rn5          krishna       hubli              5             4
```

```
SQL> select * from book;

BOOKID      BNAME       AUTHORID    PUBLISHER   BRANCHID
----------  ----------  ----------  ----------  ----------
1111        c prog      123         pearson     1
2222        dbms        124         mgrawhill   2
3333        oops        125         sapna       3
4444        unix        126         subhash     4
5555        cprog       127         pearson     5
```

```
SQL> select * from author;

AUTHORID    ANAME       COUNTRY     AGE
----------  ----------  ----------  ----------
123         navathe     india       55
124         ritche      uk          44
125         RAMKRISHN   india       55
            A
126         sumitabha   india       38
127         dennis      usa         66
```

```
SQL> select * from borrow;

USN                  BOOKID BORROWDAT
-------------- -------------- -------------
1rn1                   2222 10-JAN-00
1rn1                   3333 05-MAR-16
1rn3                   5555 01-JUN-10
1rn5                   2222 19-MAY-00
1rn2                   1111 22-FEB-15
```

Query 1. List the details of Students who are all Studying in 2nd sem MCA

```
select * from student where sem=2 and branchid in (select branchid from
branch where bname='mca')

USN            NAME           ADDR                     BRANCHID            SEM
-------------- -------------- ---------------------- -------------- --------------
1rn1           harish         bangalore                       1              2
```

Query 2. List the students who are not borrowed any books.

```
   select * from student where usn not in (select usn from borrow);

   USN         NAME           ADDR                     BRANCHID            SEM
-------------- -------------- ---------------------- -------------- --------------
1rn4           mahi           chennai                         4              7
```

Query 3. Display the USN, Student name, Branch_name, Book_name, Author_name , Books_Borrowed_Date of 2nd sem MCA Students who borrowed books.

```
select student.usn ,student.name,branch.bname, book.bname, aname, borrowdate      from student ,
branch, book, author, borrow where student.usn=borrow.usn    and borrow.bookid=book.bookid and
book.authorid =author.authorid     and student.branchid=branch.branchid and student.sem=2 and
branch.bname='mca';

USN            NAME           BNAME          BNAME          ANAME          BORROWD
                                                                           AT
-------------- -------------- -------------- -------------- -------------- -------------
1rn1           harish         mca            dbms           ritche         10-JAN-00
1rn1           harish         mca            oops           RAMKRISHN      05-MAR-16
                                                            A
```

Query 4. Display the number of books written by each Author

```
  select count(*) , authorid from book group by authorid;

COUNT(*)       AUTHORID
-------------- --------------
1              123
1              125
1              124
1              126
1              127
```

Query 5. Display the student details who borrowed more than two books.

```
    select * from student where usn in ( select usn from borrow group by usn having count(usn)
>=2);
```

```
USN            NAME           ADDR                 BRANCHID     SEM

1rn1           harish         bangalore            1            2
```

Query 6. Display the student details who borrowed books of more than one Author.

```
select * from students where exists (select br.usn from borrow br join book bk on
br.bookid=bk.bookid where br.usn=s.usn group by usn having count(distinct authorid)>1);
```

```
USN            NAME           ADDR                 BRANCHID     SEM

1rn1           harish         bangalore            1            2
```

Query 7. Display the Book names in descending order of their names.

```
select bname from book order by bname desc;
```

```
BNAME

unix
oops
dbms
cprog c
prog
```

Query 8. List the details of students who borrowed the books which are all published by the same Publisher.

```
select * from student s where exists (select usn, publisher from borrow join book on
borrow.bookid=book.bookid where s.usn=borrow.usn group by usn having count(distinct
publisher)=1);
```

```
USN            NAME           ADDR                      BRANCHID          SEM
-------------- -------------- ---------------------- -------------- --------------
1rn2           bharath        mysore                          2              3
1rn3          kiran          delhi                         3             6
1rn5          krishna        hubli                         5             4
```

Program 2

Design an ER-diagram for the following scenario, Convert the same into a relational model and then solve the following queries.

Consider a Cricket Tournament “ABC CUP” organized by an organization. In the tournament there are many teams are contesting each having a Teamid,Team_Name, City, a coach. Each team is uniquely identified by using Teamid. A team can have many Players and a captain. Each player is uniquely identified by Playerid, having a Name, and multiple phone numbers,age. A player represents only one team. There are many Stadiums to conduct matches. Each stadium is identified using Stadiumid, having a stadium_name,Address (involves city,area_name,pincode). A team can play many matches. Each match played between the two teams in the scheduled date and time in the predefined Stadium. Each match is identified uniquely by using Matchid. Each match won by any of the one team that also wants to record in the database. For each match man_of_the match award given to a player.

List of Tables:

1. TEAM(TID, TNAME, COACH, CAPTAIN_ID, CITY)
2. PLAYER(PID, PNAME, AGE TID)
3. STADIUM(SID, SNAME, PINCODE, CITY AREA)
4. MATCHES(MID, MDATE,TIME, SID, TEAM1_ID, TEAM2_ID, WINNING_TEAM_ID, MAN_OF_MATACH)
5. PLAYER_PHONE(PID, PHONE)

Queries:

1 Display the youngest player (in terms of age) Name, Team name , age in which he belongs of the tournament.

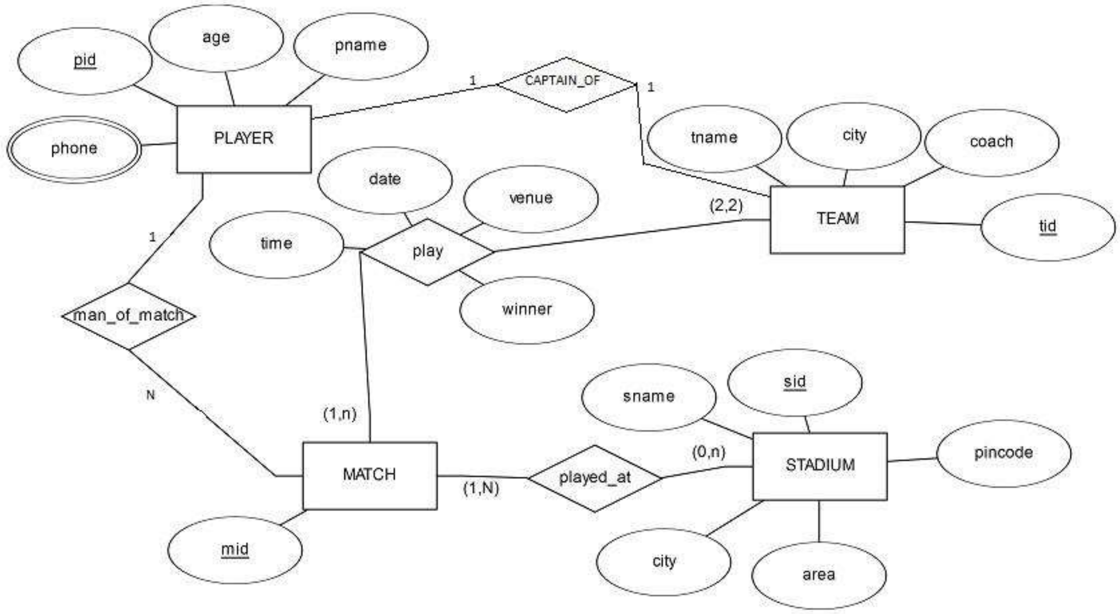
2 List the details of the stadium where the maximum number of matches were played.

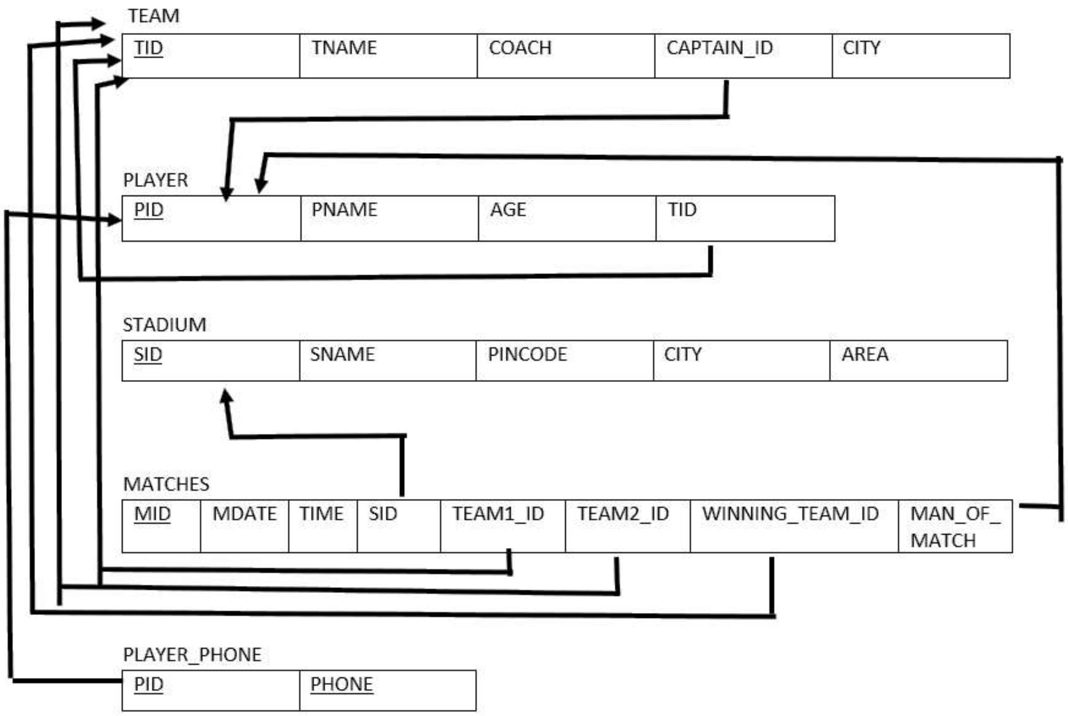
3 List the details of the player who is not a captain but got the man_of _match award at least in two matches.

4 Display the Team details who won the maximum matches.

5 Display the team name where all its won matches played in the same stadium.

ER-Diagram





TEAM

TID	TNAME	COACH	CAPTAIN_ID	CITY

PLAYER

PID	PNAME	AGE	TID

STADIUM

SID	SNAME	PINCODE	CITY	AREA

MATCHES

MID	MDATE	TIME	SID	TEAM1_ID	TEAM2_ID	WINNING_TEAM_ID	MAN_OF_ MATCH

PLAYER_PHONE

PID	PHONE

```
    create table team
    ( tid int primary key, tname
    varchar(20), coach varchar(20),
    captain_pid int,
    city varchar(20));

    create table player
    ( pid int primary key, pname
    varchar(2),
    age int,
    tid int references team(tid));

  create table stadium (sid int
  primary key, sname varchar(20),
    picode number(8), city
    varchar(20), area
    varchar(20));

create table match (mid int
primary key, mdate date,
time varchar(6),
sid int references  stadium(sid), team1_id int references team(tid),
team2_id int references team(tid), winning_team_id int references
team(tid), man_of_match int references player(pid),
CHECK (team1_id!=team2_id));
```

```
  create table player_phone
  ( pid int references player(pid), phone int ,
    primary key(pid,phone));
```

```
    SQL> select * from team;
       TID TNAME                   COACH                CAPTAIN_PID CITY
---------------
---------------------------------- -------------------- ----------- --------------------
       123 rcb                     sunil                          1 bangalore
       124 csk                     laxman                         3 chennai
       125 royals                  singh                          4 rajasthan
       126 daredevils              sehwag                         2 delhi
```

```
SQL> select * from player;

       PID PNAME                         AGE            TID
-----------    ------------------------------ -------------------- --------------------
         1 sachin                        33             123
         2 dravid                        32             124
         3 dhoni                         30             124
         4 raina                         30             125
         5 kohli                         23             126
```

```
SQL>   select * from stadium;

       SID SNAME                         PICODE        CITY                        AREA
--------------------------------------------------------------- -------------------- ----------------------------------------- -----------------------
       111 chinnaswamy                   56001         bangalore                   mg road
       222 kotla                         460009        delhi                       highway
       333 international                 38883         chennai                     tr nagar
       444 ksca                          560098        bangalore                   peenya
       555 csca                          567772        cochin                      beach road
```

```
SQL>   select * from match;

 MID MDATE   TIME            SID   TEAM1_ID  TEAM2_ID                 MAN_OF_MA
 WINNING  TEAM  ID                                                    TCH


------------------ ------------------------------ ------------------ ------------------ ------------------ ---------------------------- ----------------------
1          10-JAN-17 10am  111       123       124       123          1
102        11-JAN-17 pm    222       124       126       126          5
103        12-JAN-17 11am  111       125       126       126          5
104        17-JAN-17 12pm  111       125       123       123          1
```

```
SQL> select * from player_phone;

PID             PHONE
--------------------- ---------------------
1               998882928
2               877563733
2               988928822
3               877366383
```

Query 1 : Display the youngest player (in terms of age) Name, Team name , age in which he belongs of the tournament.

```
   Select pname, tname, age from player p, team t where p.tid=t.tid and age =(select
min(age) from player);
```

```
PNAME                          TNAME                                    AGE
------------------------------ ------------------------------ ---------------
kohli                          daredevils                                    23
```

Query 2: List the details of the stadium where the maximum number of matches were played

```
  select * from stadium where sid in (select sid from match group by sid having count(sid) = (select
  max(count(sid)) from match group by sid))
```

```
          SID SNAME                                   PICODE CITY                                    AREA
--------------- ------------------------------ --------------- ------------------------------ ------------------
          111 chinnaswamy                              56001 bangalore                        mg road
```

Query 3: List the details of the player who is not a captain but got the man_of _match award at least in two matches.

```
select * from player where pid not in ( select captain_pid from team) and pid in (select man_of_match
from match group by man_of_match having count(man_of_match)>=2);
```

```
               PID PNAME                                              AGE              TID
--------------- ------------------------------ --------------- ---------------
               5 kohli                                                 23                126
```

Query 4: Display the Team details who won the maximum matches

```
select * from team where tid in (select winning_team_id from match group by winning_team_id
having count(winning_team_id)= (select max(count(winning_team_id))from match group by
winning_team_id))
```

```
           TID TNAME                                 COACH                              CAPTAIN_PID CITY
--------------- ------------------------------ ------------------------------ ---------------- ------
         126 daredevils                       sehwag                                                  2 delhi
```

Query 5: Display the team name where all its won matches played in the same stadium

```
        select tname from team where tid in ( select winning_team_id
        from match groupby(winning_team_id,sid)
        having count(*) in (select count(winning_team_id) from match group by
        winning_team_id))
```

```
TNAME
----------
rcb
```

Program 3

Consider the following Scenario and design an ER-Diagram, map the designed ER-diagram into a Relational model. Consider an organization "ABC" having many employees. An employee works for one department. Each employee identified by using Empid, having Name, address (described as House_no, city, district, state, pin code) and more than one phone numbers. Department identified by using Dno, having Dname, Dlocation. Each Department having a manager. Each department having many employees. There are many Projects, each project is controlled by the department. Each Project uniquely identified by Pno, having Project_name, Project_location. An employee works on many Projects. Number of hours per week worked on each project by an Employee also needs to be recorded in the database. A project is worked by many employees. Each employee supervised by the supervisor. Employee having many dependents. Dependents having the dependent_name, gender, age, address. Dependents are identified by Empid.

T1(Empid, Emp_Name,city, district, state, pin_code, phoneno, Dno,Dname,Dlocation, Dept_mgr_id, Pno, Project_name, Project_location, Number_of_Hours,Supervisor_Empid, Dependent_name, gender, address),

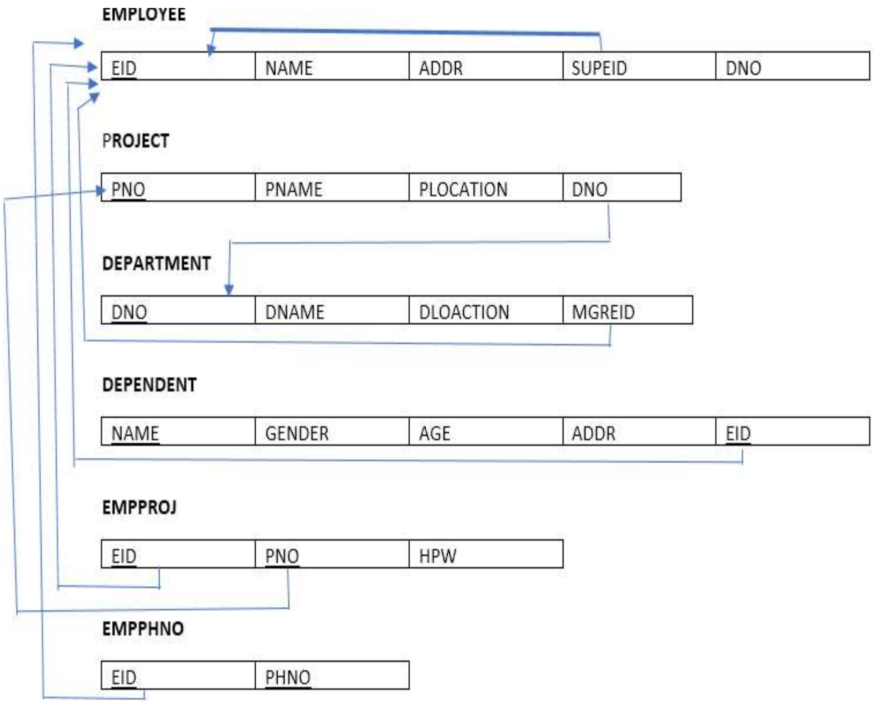
Deduce the above Relation T1 into the 3NF and then solve the following queries.

List of table:

1. **Employee(eid, name, addr, supeid, dno)**
2. **Project(pno, pname, plocation, dno)**
3. **Department(dno, dname, dlocation, mgreid)**
4. **Dependent(name, gender, age, addr, eid)**
5. **Empproj(eid, pno, hpw)**
6. **Empphno(eid, phno)**

Queries:

1. Display the details of the employees who are working on both the projects having project_no 5 and 10.
2. Display the details of employees having at least two dependents.
3. Display the project name on which more number of employees are working.
4. Retrieve the employees who do not have any dependents.
5. Display the Employee details whose total number of hours per week working on various projects is maximum than all other employees.
6. Create a view to display the number of employees working in each department.



EMPLOYEE

EID | NAME | ADDR | SUPEID | DNO

PROJECT

PNO | PNAME | PLOCATION | DNO

DEPARTMENT

DNO | DNAME | DLOACTION | MGREID

DEPENDENT

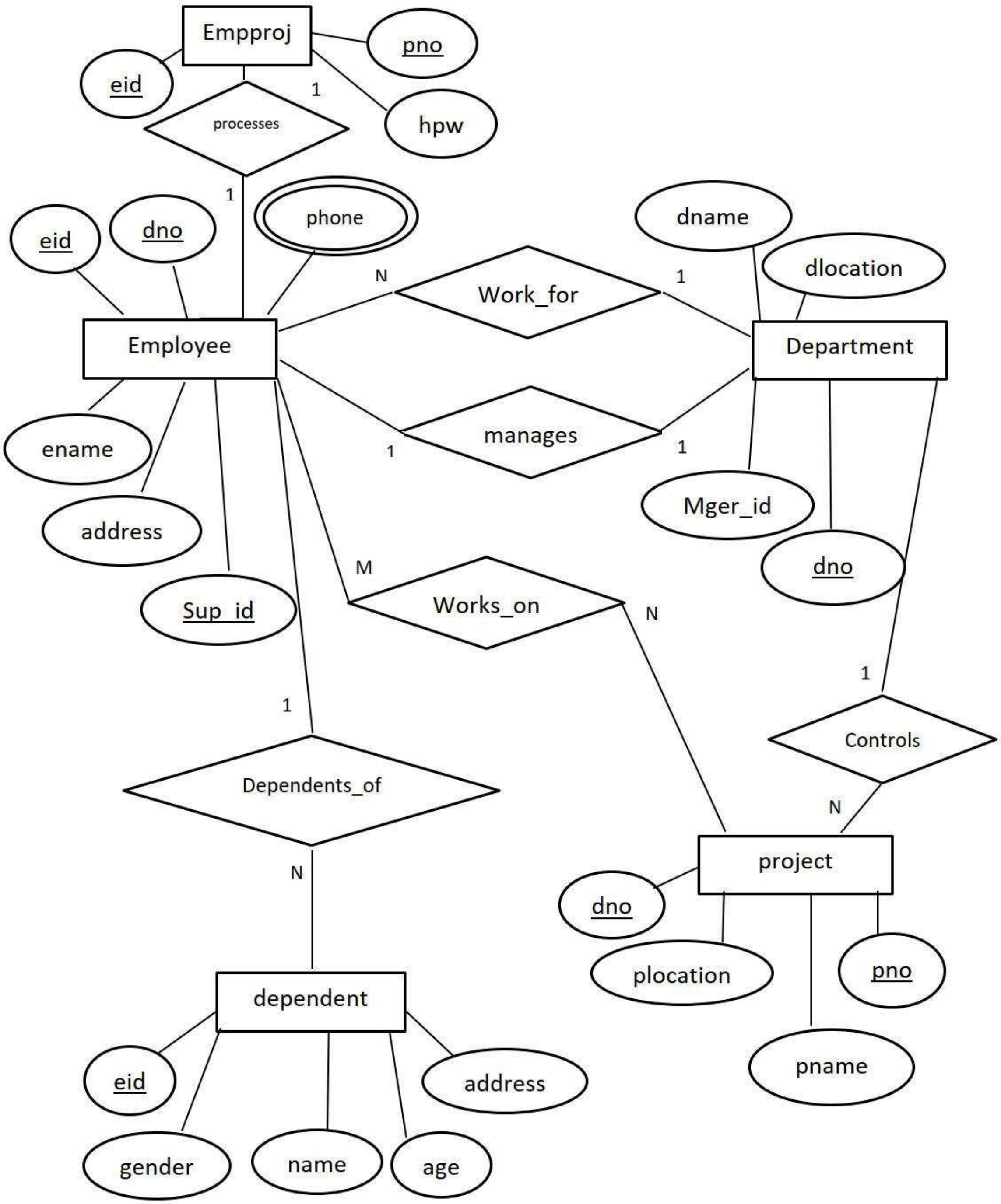
NAME | GENDER | AGE | ADDR | EID

EMPPROJ

EID | PNO | HPW

EMPPHNO

EID | PHNO


Empproj
eid
pno
hpw
1
processes
1
eid
dno
phone
dname
dlocation
N
Work_for
1
Employee
Department
ename
manages
1
1
address
Mger_id
dno
Sup_id
M
Works_on
N
1
1
Controls
Dependents_of
N
N
project
dno
plocation
pno
pname
dependent
eid
address
gender
name
age

```
SQL> create table employee(eid int primary key, ename varchar(10),
address varchar(10), supeid
int,
dno int);

SQL> alter table employeee add constraint fk_supeid foreign key(supeid) references
employeee(eid);

SQL> create table department(dno int primary key, dname varchar(20),
dlocation varchar(10),
mgrid int references employeee(eid));

SQL> alter table employeee add constraint fk_dno foreign key(dno) references
department(dno));

SQL> create table project(pno int primary key, pname varchar(20),
plocation varchar(20),
dno int references department(dno));

SQL> create table dependent(name varchar(20), gender varchar(6),
age int,
addr varchar(20),
eid int references employeee(eid), primary
key(name,eid));

SQL> create table empproj(eid int references employeee(eid), pno int references
project(pno),
hpw int,
primary key(eid,pno));


SQL> create table empphno(eid int references employeee(eid), phno int,
primary key(eid,phno));

SQL> desc employee;
 Name                                                    Null?       Type
 ------------------------------------------------------- ----------- ------------------------
 EID                                                     NOT NULL NUMBER(38)
 NAME                                                                VARCHAR2(30)
 ADDRESS                                                             VARCHAR2(30)
 SUPEID                                                              NUMBER(38)
 DNO                                                                 NUMBER(38)

SQL> desc department;
 Name                                                    Null?       Type
 ------------------------------------------------------- ----------- ------------------------
 DNO                                                     NOT NULL NUMBER(38)
 DNAME                                                               VARCHAR2(20)
 DLOCATION                                                           VARCHAR2(10)
 MGRID                                                               NUMBER(38)

SQL> desc project;
 Name                                                    Null?       Type
--------------------------------------------------------- ----------- -------------------------
--PNO---------                                           NOT         NUMBER(38)
                                                         NULL
 PNAME                                                               VARCHAR2(20)
 PLOCATIO                                                            VARCHAR2(20)
 N DNO                                                               NUMBER(38)
```

```
SQL> desc     dependent;
  Name                                                      Null?        Type
----------------------------------------------------------  -----------  ------------------------
  NAME                                                      NOT          VARCHAR2(20)
  GENDE                                                     NULL         VARCHAR2(6)
  R AGE                                                                  NUMBER(38)
  ADDR                                                                   VARCHAR2(20)
  EID                                                                    NUMBER(38)
                                                            NOT
                                                            NULL

SQL> desc     empproj;
  Name                                                      Null?        Type
----------------------------------------------------------  -----------  ------------------------
  EID                                                       NOT          NUMBER(38)
                                                            NULL
  PNO                                                       NOT          NUMBER(38)
                                                            NULL
  HPW                                                                    NUMBER(38)

SQL> desc     empphno;
  Name                                                      Null?        Type
----------------------------------------------------------  -----------  ------------------------
  EID                                                       NOT          NUMBER(38)
                                                            NULL
  PHNO                                                      NOT          NUMBER(38)
                                                            NULL

SQL> select * from employee;

          EID  NAME            ADDRESS          SUPEID    DNO

            4 spurthy          chikmangalore       3      200
            5 raghavi          bangalore           4      500


SQL> select * from department;

DNO             DNAME                        DLOCATION     MGRID
--------------  ---------------------------  ------------  ------------
100             mca                          blore         4
200             mba                          mlore         5
300             cse                          mumbai        2
400             mech                         delhi         3
500             ece                          chennai       1

SQL> select * from project;

PNO             PNAME                        PLOCATION                    DNO
--------------  ---------------------------  ---------------------------  ------------
111             student                      blore                        100
222             library                      madurai                      300
333             hotel                        chennai                      100
444             railway                      delhi                        500
555             airline                      ranchi                       400
5               sp                           mysore                       100
10              raji                         kolkata                      200
```

```
SQL>  select       *   from    dependent;

NAME                        GENDER      AGE     ADDR                        EID
-----------------------------------------------------------   ----------------------------   --------------
                            ---------
priya                       f           20      mumbai                      1
divya                       f           19      blore                       2
priyanka                    f           18      madurai                     3
sarvan                      m           24      delhi                       3
jothi                       f           40      madurai                     5
lakshmi                     f           23      udupi                       1


SQL> select        * from      empproj;

          EID              PNO              HPW
-----------------------------------------------------------
1                          111              5
3                          222              4
2                          333              7
4                          111                10
5                          444                20
1                            5              4
1                           10              8

SQL> select * from empphno;

EID         PHNO
--------------- ---------------
             3 9025678934
             4 9807654323
             5 8907654323
             2 7896897654
             1 9087654321
```

Query 1. Display   the details   of the employees who are working on both the projects having   project_no 5 and 10.

```
select * from employee where eid in(select w1.eid from empproj w1,empproj w2 where
w1.pno=5 and w2.pno=10 and w1.eid=w2.eid);

          EID       NAME           ADDRESS           SUPEID          DNO
--------------- ---------------   ---------------   ------------    --------
             1      priya          bangalore               5           200
```

Query 2. Display the details of employees having at least two dependents.

```
select * from employee where eid in (select eid from dependent group by eid having
count(eid)>=2);

          EID           NAME        ADDRESS               SUPEID          DNO
  ---------------    ------------   ---------------       -----------     ---------
             1          priya       bangalore                  5            200
             3          teertha     sirsi                      2            300
```

Query 3. Display the project name on which more number of employees are working.

```
select pname from project where pno in (select pno from empproj group by pno having count(pno)
= (select max(count(pno)) from empproj group by pno))
```

```
PNAME
------------------------------
student
```

Query 4. Retrieve the employees who do not have any dependents.

```
select * from employee where eid not in (select eid from dependent);
```

```
     EID            NAME           ADDRESS            SUPEID            DNO
--------------- ------------    --------------     --------------    ---------------
        4       spurthy         chikmangalore            3             200
```

Query 5. Display the Employee details whose total number of hours per week working on various projects is maximum than all other employees.

```
select * from employee where eid in (select eid from empproj group by eid having sum(hpw) >=
(select max(sum(hpw)) from empproj group by eid));
```

```
        EID          NAME           ADDRESS          SUPEID           DNO

5                  raghavi          bangalore        4                500
```

Query 6. Create a view to display the number of employees working in each department

```
create view empcount(dno,no_of_emp) as select dno,count(dno) from employeee group by dno;
```

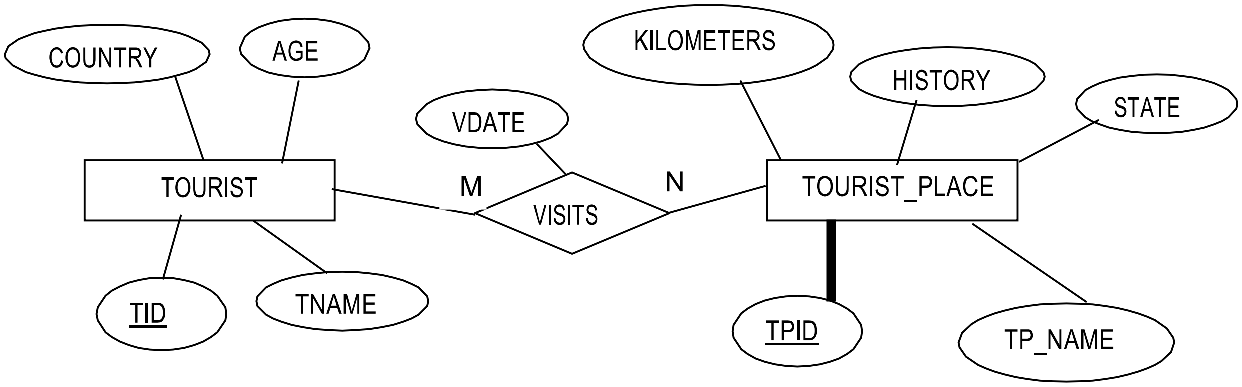
```
SQL> select * from empcount;

           DNO        NO_OF_EMP
----------------------    ----------------------
           200             2
           300             1
           400             1
           500             1
```

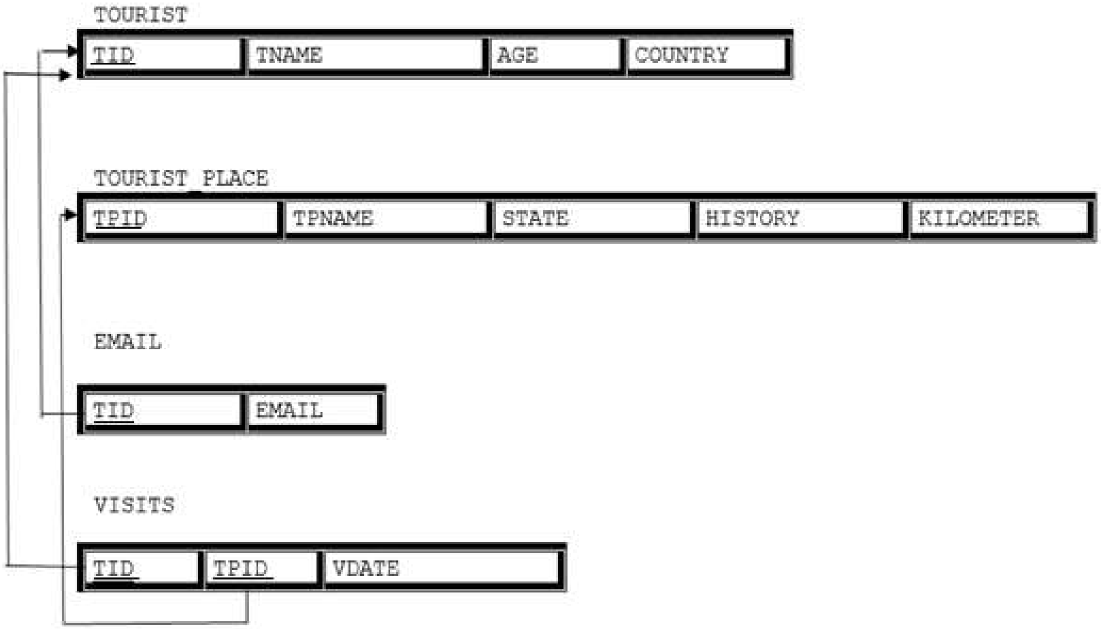
Program 4

Design an ER-diagram for the following scenario, Convert the same into a relational model, normalize Relations into a suitable Normal form and then solve the following queries. A country can have many Tourist places . Each Tourist place is identified by using tourist_place_id, having a name, belongs to a state, Number of kilometers away from the capital city of that state,history. There are many Tourists visits tourist places every year. Each tourist is identified uniquely by using Tourist_id, having a Name, age, Country and multiple emailids. A tourist visits many Tourist places, it is also required to record the visted_date in the database. A tourist can visit aTourist place many times at different dates. A Tourist place can be visited by many tourists either inthe same date or at different dates.

Queries:

1 List the state name which is having maximum number of tourist places.
2 List details of Tourist place where maximum number of tourists visited.
3 List the details of tourists visited all tourist places of the state “KARNATAKA”.
4 Display the details of the tourists visited at least one tourist place of the state, but visited all states tourist places.
5 Display the details of the tourist place visited by the tourists of all country.





TOURIST

TID	TNAME	AGE	COUNTRY

TOURIST_PLACE

TPID	TPNAME	STATE	HISTORY	KILOMETER

EMAIL

TID	EMAIL

VISITS

TID	TPID	VDATE

```
create table tourist_place (tpid number
primary key, history varchar(20),
kilometers number(3)
,state varchar(20), tpname
varchar(20));

create table tourist(tid number primary key, country varchar(20),
age number,
tname varchar(20));

create table visits
(tpid number(3) references tourist_place(tpid), tid number references
tourist(tid),
vdate date,
primary key(tpid,tid));

create table email
(tid number references  tourist(tid), email varchar(20),primary
key(tid,email));
```

```
  desc tourist_place;
  Name                                                Null?     Type
  --------------------------------------------------- --------- ------------------------------
  TPID                                                NOT NULL NUMBER
  HISTORY                                                       VARCHAR2(20)
  KILOMETERS                                                    NUMBER
  STATE                                                         VARCHAR2(20)
  TPNAME                                                        VARCHAR2(20)

  desc tourist;
  Name                                                Null?     Type
  --------------------------------------------------- --------- ------------------------------
  TID                                                 NOT NULL NUMBER
  COUNTRY                                                       VARCHAR2(20)
  AGE                                                           NUMBER
  TNAME                                                         VARCHAR2(20)

desc visits;
  Name                                                Null?     Type
  --------------------------------------------------- --------- ------------------------------
  TPID                                                NOT NULL NUMBER
  TID                                                 NOT NULL NUMBER
  VDATE                                                         DATE

desc email;
  Name                                                Null?     Type
  --------------------------------------------------- --------- ------------------------------
  TID                                                           NUMBER
  EMAIL                                                         VARCHAR2(20)
```

```
SQL> insert into tourist_place(tpid,history,kilometers,state,tpname)values('11','beauty','
160','karnataka','ooty');

1 row created.
```

```
SQL> select * from tourist_place;

 TPID HISTORY                 KILOMETERS STATE                TPNAME

--------------------------------------------- ---------------- -------------------- ---------------
          11 beauty                     160        karnataka           ooty
          12 monuments                  270        kerala              beluru
          13 beach                      360        tamilnadu           marina

SQL> insert into tourist(tid,country,age,tname)values('22','india','34','prakash');

1 row created.

SQL> select * from tourist;

         TID COUNTRY                              AGE TNAME
------------ ------------------------- ------------ -------------------------
          22 india                                 34 prakash
          23 orissa                                28 bhanu
          24 india                                 30 nagesh

SQL> insert into visits values('&tpid','&tid','&vdate'); Enter value for tpid: 12
Enter value for tid: 23
Enter value for vdate: 13-nov-2014
old      1: insert into visits values('&tpid','&tid','&vdate') new   1: insert into visits
values('12','23','13-nov-2014')

1 row created.

SQL> select * from visits;

TPID  TID            VDATE
----- -------------- -------------
12    23             13-NOV-14
11    24             24-JUN-13
13    22             25-SEP-11
11    23             23-FEB-10
13    23             12-JAN-10
14    24             10-JAN-17

SQL> insert into email values('&tid','&email');
Enter value for tid: 23
Enter value for email: bhanu12@gmail.com
old      1: insert into email values('&tid','&email')
new      1: insert into email values('23','bhanu12@gmail.com')

1 row created.

SQL> select * from email; TID
         EMAIL
------------ -------------------------
          23 bhanu12@gmail.com
          22 prakash242@gmail.com
          24 nageshh@gmail.com
```

Query 1: List the state name which is having maximum number of tourist places.

```
  select state from tourist_place group by state having count(state)=(select max(count(state))
from tourist_place group by state);
```

```
            STATE
            -----------------------------
            karnataka
```

query 2: List details of Tourist place where maximum number of tourists visited.

```
select * from tourist_place where tpid in (select tpid from visits group by tpid having count(tpid)=
(select max(count(tpid)) from visits group by tpid));
```

```
          TPID HISTORY                              KILOMETERS STATE                         TPNAME

------------------- -------------------------------- ------------------------------------------------ ------------------
11                beauty                                  160 karnataka                        ooty
13                beach                                   360 tamilnadu                        marina
```

Query 3: List the details of tourists visited all tourist places of the state “KARNATAKA”.

```
 select * from tourist t where t.tid in (select tid from visits join
  tourist_place on visits.tpid=tourist_place.tpid where
  state='karnataka' group by tid having count(state) in (select
  count(state ) from tourist_place where state='karnataka') );
```

```
      TID COUNTRY                                    AGE TNAME
--------- --------------------------- -------------- ----------------------------
        24 india                                       30 nagesh
```

Query 4: Display the details of the tourists visited at least one tourist place of the state, but visited all states tourist places.

```
select * from tourist t where t.tid in (select tid from visits join tourist_place on
visits.tpid=tourist_place.tpid
    group by tid having count(distinct state)
in (select count(distinct state ) from tourist_place) );
```

```
TID COUNTRY                                    AGE TNAME
------- ---------------------------------------- ---------------------- -----------------------------

      23 orissa                                    28 bhanu
```

Query 5: Display the details of the tourist place visited by the tourists of all country.

```
select * from tourist_place where tpid in (
select        tpid from visits join tourist on visits.tid=tourist.tid group by tpid having
count(distinct country)=
(select count(distinct country) from tourist));
```

```
  TPID HISTORY                          KILOMETERS STATE                           TPNAME

------------------------------------------ -------------------------------------------------- -------------------------
      11 beauty                                  160 karnataka                        ooty
      13 beach                                   360 tamilnadu                        marina
```