KONERU LAKSHMAIAH EDUCATION FOUNDATION
(Deemed to be university estd, u/s, 3 of the UGC Act, 1956)
(NAAC Accredited "A" Grade University)

PROJECT BASED LAB REPORT

On

Vivans Educational Consultancy

Submitted

For

Partial fulfilment of requirements for II year B.Tech program

By

CH Krishna Chaitanya   170030184

Under the Esteemed guidance

Mr. T Ravi Kumar

Associate Professor

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

KONERU LAKSHMAIAH EDUCATION FOUNDATION

Green Fields, Vaddeswaram, Guntur District-522502

2018-19

CERTIFICATE

This is to certify that the project based laboratory report entitled "**Vivans Educational Consultancy**" submitted by **CH Krishna Chaitanya** bearing Regd. No **170030184 in** partial fulfilment of the requirements for the award of degree in **BACHELOR OF TECHNOLOGY** in **COMPUTER SCIENCE AND ENGINEERING** during the Academic year 2017-2018.

Project guide   **Head of the Department**

                                                        Dr. HARI KIRAN VEGE

KLEF
KONERU LAKSHMAIAH EDUCATION FOUNDATION
(Deemed to be university estd, u/s, 3 of the UGC Act, 1956)
(NAAC Accredited "A" Grade University)

DECLARATION

We hereby declare that this project based lab report titled **"Vivans Educational Consultancy"** has been prepared by us in partial fulfilment of the requirements for the award of degree "**BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGNEERING**" during the Academic year 2017-2018.

We also declare that this project based lab report is of our own efforts and it has not been submitted to any other university for the award of any degree.

CH Krishna Chaitanya   170030184

ACKNOWLEDGEMENT

Our sincere thanks to **Mr. T Ravi Kumar** in the Lab for their outstanding support throughout the project for the successful completion of the work.

We express our gratitude to **DR. HARI KIRAN VEGE,** Head of the Department for Computer science and Engineering for providing us with adequate facilities, ways and means by which we are able to complete this project based Lab.

We would like to place on record the deep sense of gratitude to the honourable Vice Chancellor, K L University for providing the necessary facilities to carry the project based Lab.

Finally, it is pleased to acknowledge the indebtedness to all those who devoted themselves directly or indirectly to make this project report success.

CH Krishna Chaitanya   170030184

CONTENTS

S.NO	TITLE	Page No
1	Abstract	1
2	Introduction	2
3	Project Description	3-4
4	functional requirements	4
5	List of entities and attributes	5-8
6	ER Diagram (conceptual)	9
7	Schema Diagram	10-11
8	Relation between entities	12
9	Creating tables and inserting data	12-18
10	SQL queries related to report generation	19-24
11	Conclusion	24

ABSTRACT

In this project we will develop the ER model as part of conceptual design and realize the ER model into schemas as part of logical design for Vivans educational consultancy by identifying the major data requirements for this consultancy in educational domain. We identify the entities like recruitment of employees, assisting admissions for the students into prominent engineering and medical colleges and attributes required for educational services are offered by this organization. The relationships like recruitment of staff by the consultancy, collection of information and posting to the management, relationship between parents and receptionists about the enquiry made by parents regarding the admissions, relationship between the management and teachers and we apply normalization techniques to the above schemas whenever we needed. We create the tables with constraints to the identified schemas as part of logical design and we insert the relevant data into tables. Finally we write the SQL queries for the following information and generate ten relevant reports for the Vivans educational consultancy.

INTRODUCTION

A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. In one view, databases can be classified according to types of bibliographic, full-text, numeric, and images. In computing, databases are sometimes classified according to their organizational approaches. The most prevalent approach is the relational database, a tabular database in which data is defined so that it can be reorganized and accessed in a number of different ways. A distributed database is one that can be dispersed or replicated among different points in a network. An object-oriented programming database is one that is congruent with the data defined in object classes and subclasses.

As one of the oldest components associated with computers, the database management system (DBMS) , is a computer software program that is designed as the means of managing all databases that are currently installed on a system hard drive or network. Different types of database management systems exist, with some of them designed for the oversight and proper control of databases that are configured for specific purposes. Here are some examples of the various incarnations of DBMS technology that are currently in use, and some of the basic elements that are parts of DBMS software applications. In database management system (DBMS), data files are the files that store the database information, whereas other files, such as index files and data dictionaries, store administrative information, known as metadata. Database system is a system to achieve an organized, store a large number of dynamical associated data, facilitate for multi-user accessing to computer hardware, software and data, that it is a computer system with database technology.

PROJECT DESCRIPTION

Vivans educational consultancy is offering services in educational domain. It was established by academicians and business consultants. The services offered by the organization includes consultancy to students in assisting admission to them into prominent Medical colleges, engineering colleges in India and around the world. The firm has cherished and started medical NEET academy through which it offers short term and long-term coaching for Medical entrance test preparation. The firm needs to utilize the software services to cater its business requirements.

The Consultancy recruits staff for doing tele-calling, business representatives and office receptionists. The representatives visit the intermediate colleges and collect the information about the students who wish to take up his career in Medicine and Engineering. The firm offers consultancy services to such students, by acting as middle man to various universities such as BHARATH University, VIT University, SRM University etc.. The students who wish to join these universities through this consultancy need to register with the firm, the information such as candidate name, father name, date of birth, Xth marks, Inter marks, phone numbers, email ids, postal address. The student needs to mention his choice of interest such as Medicine or Engineering. The student should also provide his University/College preferences. The representatives collect this information and post onto the management. The management will guide the tele callers to maintain interaction with the student or parent. The tele callers maintain information such as the date of calling, who has answered the call, the employee id who made a call, phone number, time of calling, minutes of calling, expected date to call.

Apart from gathering admission assistance information from the students, the tele callers will enquire about the coaching offered by the firm for NEET examination. The information such as whether they require the hostel facility provided by the firm id recorded. The receptionist maintains information about the enquiry made by parents. The management keeps information regarding the availability of teachers for every subject like Physics, Math, Botany, zoology etc. They maintain teacher information about their phone numbers and contact address.

FUNCTIONAL REQUIREMENTS

- Add information about the firm, coaching, student, teacher, and parent.
- Delete information about the firm, coaching, student, teacher, and parent.
- Firm contains the information about tele callers such as date of call, phone no to which they called.
- Firm employed many teachers for subjects of their interest.
- Insert new and change a coaching list for different courses.
- The student can register for a particular firm and clarify his or her doubts.
- In this project we can also find the staffs who are working sincerely.

LIST OF ENTITIES AND ATTRIBUTES

FIRM

1) Firm_id
2) Address
3) State
4) City
5) Pincode

TEACHER

1) Tec_ID
2) Name
3) Address
4) City
5) Pincode
6) State
7) Subject
8) Phone_No
9) Firm_ID

STUDENT

- Stu_ID
- Cname
- Fname
- Phone_No
- Address
- City
- Pincode
- State
- Email-ID
- Tenth_marks
- Inter_marks
- Group1
- Preferred_college

STAFF

1) S_ID
2) Name
3) Address
4) City
5) Pincode
6) State
7) Phone_NO

RECEPTIONISTS

1) S_ID
2) Name
3) Street
4) City
5) State
6) Pinode

REPRESENTATIVES

1) S_ID
2) Name
3) Street
4) City
5) State
6) Pincode

TELECALLER

1) S_ID
2) Name
3) Address
4) City
5) State
6) Pincode

NEET_ACADEMY

1) NEET_CLGID
2) Name
3) Address
4) Pincode
5) City
6) State

COLLEGE

1) Clg_ID
2) Address
3) City
4) State
5) Pincode
6) Name

PARENT

1) P_ID
2) Email
3) Name
4) Phone

COACHING

1) C_NO
2) Sater-Date
3) Course
4) End_Date
5) Fees

INTERACT

1) Stud_Id
2) Tele_ID
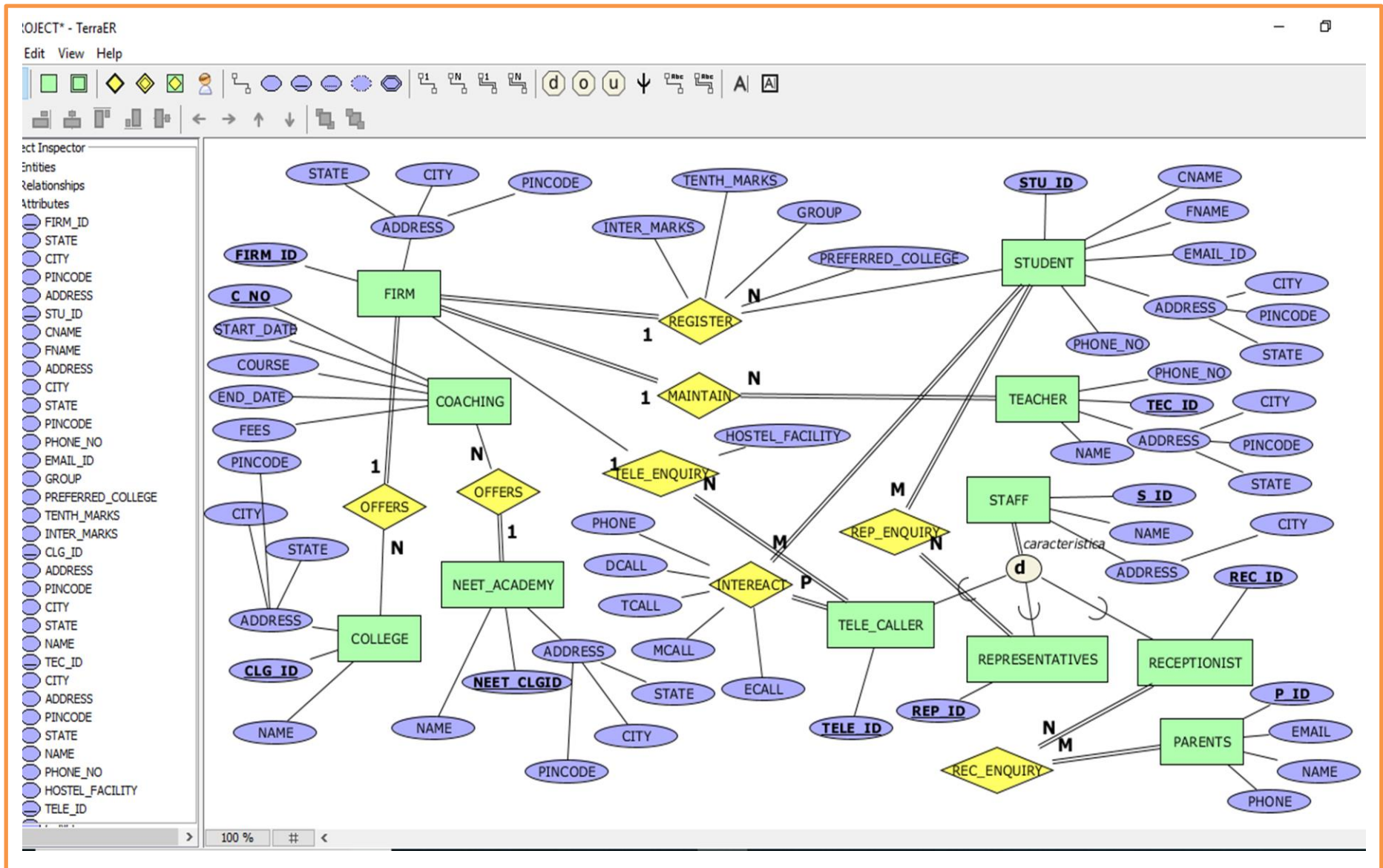
3) Phone
4) Dcall

REP_ENQUIRY

1) Stud_ID
2) S_ID

REC_ENQUIRY

1) P_ID
2) S_ID

TELE_ENQUIRY

1) P_ID
2) Firm_ID

ER DIAGRAM (CONCEPTUAL MODEL)

SCHEMA DIAGRAM

FIRM

Firm_ID	Address	Sate	City	Pincode

TEACHER

Tec_ID	Name	Address	City	Pincode	State	Phone_NO

STUDENT

Stu_ID	Cname	Fname	Phone_NO	Address	City	Pincode
State	Email_ID	Tenth_Marks	Inter_marks	Group	P_college	

STAFF

S_ID	Name	Adddress	City	Pincode	State	Phone_no

RECEPTIONISTS

S_ID	Name	Street	City	State	Pin

REPRESENTATIVES

S_ID	Name	Street	City	State	Pincode

TELECALLER

Tele_ID	Name	Address	City	State	Pincode

NEET_ACADEMY

Coll_ID	Name	Adress	Pincode	City	State

15

COLLEGE

Clg_ID	Address	City	State	Pincode	Name

PARENT

P_ID	Email	Name	Phone

COACHING

C_NO	Start_Date	Course	End_Date	Fees

INTREACT

Stud_ID	Tele_ID	Phone	Dcall	Tcall	Mcall	Ecall

REP_ENQUIRY

Stud_ID	S_ID

REC_ENQUIRY

P_ID	S_ID

TELE_ENQUIRY

P_ID	FIRM_ID

RELATIONSHIP BETWEEN ENTITIES

- ❖ Every Firm offers many colleges.
- ❖ Every firm maintains records of all the teachers.
- ❖ Medical Neet Academy offers various coaching.
- ❖ Tele callers enquire about the firm.
- ❖ Receptionists enquire parents.
- ❖ Representatives enquire students.
- ❖ Tele callers interact with the student.
- ❖ Students register for a firm.

CREATING TABLES AND INSERTING DATA AND VALUES

1) create table Firm(Firm_ID integer primary key, city varchar(45),state varchar(45), pincode integer);
2) create table Teacher(Tec_ID integer primary key, name varchar(45),phone_no integer, city varchar(45),state varchar(45),pincode integer, subject varchar(45),firm_id integer);
3) create table Student(Stu_ID integer primary key, cname varchar(45),fname varchar(45), phone_no integer, tenth_marks integer, Inter_marks integer, email_ID varchar(45),group1 varchar(45),preferred_college varchar(45),city varchar(45),state varchar(45),pincode integer, firm_id integer);
4) create table Staff(S_ID integer primary key, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer);
5) create table Receptionists(S_ID integer, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer);
6) create table Representatives(S_ID integer, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer);
7) create table Telecaller(S_ID integer, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer);

8) create table Neet_Academy(NEET_CLGID integer primary key, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer, term int);

9) create table college(clg_ID integer primary key, name varchar(45),street varchar(45),city varchar(45),state varchar(45),pincode integer, firm_ID integer);

10) create table parent(P_ID integer primary key, name varchar(45),phone_no integer, street varchar(45),city varchar(45),state varchar(45),pincode integer, email varchar(45));

11) create table Intereact(Stud_ID integer not null, Tele_ID integer, Dcall date, phone integer);

12) create table coaching(C_NO integer primary key, start_date date,end_date varchar(45),course varchar(45),fees integer, NEET_CLGID integer);

13) create table Rep_enquiry(Stu_ID integer, S_ID integer);

14) create table Rec_enquiry(P_ID integer, S_ID integer);

15) create table Tele_enquiry(Firm_ID integer, S_ID integer);

16) alter table teacher add constraint firm_id_fk1 foreign key(firm_Id) references Firm(firm_ID);

17) alter table student add constraint firm_id_fk2 foreign key(Firm_ID) references Firm(firm_ID);

18) alter table Receptionists add constraint firm_id_fk3 foreign key(S_ID) references Staff(S_ID);

19) alter table Representatives add constraint firm_id_fk4 foreign key(S_ID) references Staff(S_ID);

20) alter table college add constraint firm_id_fk5 foreign key(Firm_ID) references Firm(firm_ID);

21) alter table coaching add constraint NEET_CLGID_fk6 foreign key(NEET_CLGID) references Neet_Academy(NEET_CLGID);

22) alter table Rep_enquiry add constraint Stu_ID_fk7 foreign key(Stu_ID) references Student(Stu_ID);

23) alter table Rep_enquiry add constraint S_ID_fk8 foreign key(S_ID) references Staff(S_ID);

24) alter table Rec_enquiry add constraint P_ID_fk9 foreign key(P_ID) references parent(P_ID);

25) alter table Rec_enquiry add constraint Rec_ID_fk10 foreign key(S_ID) references Staff(S_ID);

26) alter table tele_enquiry add constraint P_ID_fk11 foreign key(S_ID) references staff(S_ID);

27) alter table tele_enquiry add constraint Firm_ID_fk12 foreign key(Firm_ID) references Firm(Firm_ID);

firm values

insert into firm values(1,'vijayawada','andhrapradesh',520010);

insert into firm values(2,'hyderabad','telangana',520110);

insert into firm values(3,'vijayawada','andhrapradesh',520011);

insert into firm values(4,'vijayawada','andhrapradesh',521110);

Teacher values

insert into teacher
values(1,'hari',987543210,'vijayawada','andhrapradesh',520010,'english',1);

insert into teacher
values(2,'kiran',986545310,'khamam','telangana',520010,'maths',2);

insert into teacher
values(3,'prasad',987654380,'vijayawada','andhrapradesh',521010,'physics',4);

insert into teacher
values(4,'satyakalyan',936543210,'vijayawada','andhrapradesh',521010,'chemistry', 3);

insert into teacher
values(5,'harisimha',987233210,'vijayawada','andhrapradesh',520010,'science',1);

Student values

insert into student values(170030184,'krishna','srinivas',9491506851,8,917,'Krishnachakilela@gmail.com','CSE','KLU','Hyderabad','Telangana',522102,1);

insert into student values(170030159,'Shasshank','janardhan',9640036198,8,828,'shashankbompally@gmail.com','CSE','KLU','vijayawada','Andhra pradesh',522103,2);

insert into student values(170030506,'Vignesh','Gandadhar',7299061009,7,942,'Kailaswarsaivignesh@gmail.com','CSE','KLU','Adilabad','Telangana',522104,3);

insert into student values(170030198,'Nitheesh','shiva reddy',8978911446,8,870,'nithesshreddy010@gmail.com','CSE','KLU','Kurnool','Andhra pradesh',533103,1);

Staff values

insert into staff values(100,'anusha','Hanuman nagar','rajahmundry','andhra pradesh',533103);

insert into staff values(101,'chandu','vaddeswaram,','ravulapalem','andhra pradesh',533104);

insert into staff values(102,'prem','ntr circle','guntur','andhra pradesh',533105);

insert into staff values(103,'sai','butchayya nagar','kovvur','andhra pradesh',533104);

insert into staff values(104,'sana','benz circle','vijayawada','andhra pradesh',533106);

insert into staff values(105,'satya','Auto nagar','ravulapalem','andhra pradesh',533104);

Receptionists

insert into Receptionists values(100,'anusha','Hanuman nagar','rajahmundry','andhra pradesh',533103);

insert into receptionists values(101,'chandu','vaddeswaram','ravulapalem','andhra pradesh',533104);

Representatives

insert into Representatives values(102,'prem','ntr circle','guntur','andhra pradesh',533105);

insert into representatives values(103,'sai','butchayya nagar','kovvur','andhra pradesh',533104);

Telecaller

insert into Telecaller values(104,'sana','benz cirle','vijayawada','andhra pradesh',533106);

insert into Telecaller values(105,'satya','Auto nagar','ravulapalem','andhra pradesh',533104);

College

insert into college values(1000,'kluniversity','vaddeswaram','guntur','andhra pradesh',533105,1);

insert into college values(1001,'kiet','koranki','kakinada','andhra pradesh',533605,2);

insert into college values(1002,'giet','talapularev','miriyalguda','telangana',533606,1);

insert into college values(1003,'adithya','tirumalai','tirupathi','andhra pradesh',533607,3);

PARENT

insert into parent values(90,'pavan',850010225,'vaddeswaram','guntur','andhra pradesh',533105,'pavan@gmail.com');

insert into parent values(91,'mani',850010335,'koranki','kakinada','andhra pradesh',533605,'mani@gmail.com');

insert into parent
values(92,'venkat',850010775,'talapularev','miriyalguda','telangana',533606,'venkat
@gmail.com');

insert into parent values(93,'kumar',850008835,'tirumalai','tirupathi','andhra
pradesh',533607,'kumar@gmail.com');

Neet_Academy

insert into Neet_Academy
values(150,'rao_neet_academy','ashoknagar','vijayawada','andhrapradesh',520010,1
);

insert into Neet_Academy
values(151,'raj_neet_academy','ramnagar','hyderabad','telangana',520110,2);

Coaching

insert into coaching values(33,date '2015-06-21',date '2017-06-
21','english',1500,150);

insert into coaching values(34,date '2015-07-21',date '2017-07-
21','speaking',1400,151);

insert into coaching values(35,date '2015-08-21',date '2017-08-
21','maths',1800,150);

insert into coaching values(36,date '2015-09-21',date '2017-09-
21','chemistry',1600,151);

Intereact

insert into Intereact values(170030184,300,date '2019-04-15',98765321);

insert into Intereact values(170030506,301,date '2019-03-5',7299061006);

insert into Intereact values(150030198,303,date '2019-02-25',8978911446);

insert into Intereact values(170030159,302,date '2019-02-15',9640036198);

Rep_enquiry

insert into Rep_enquiry values(170030184,103);

insert into Rep_enquiry values(170030506,102);

insert into Rep_enquiry values(170030198,102);

insert into Rep_enquiry values(170030159,102);

Rec_enquiry

insert into Rec_enquiry values(90,101);

insert into Rec_enquiry values(91,100);

insert into Rec_enquiry values(92,100);

insert into Rec_enquiry values(93,101);

Tele_enquiry

insert into Tele_enquiry values(1,104);

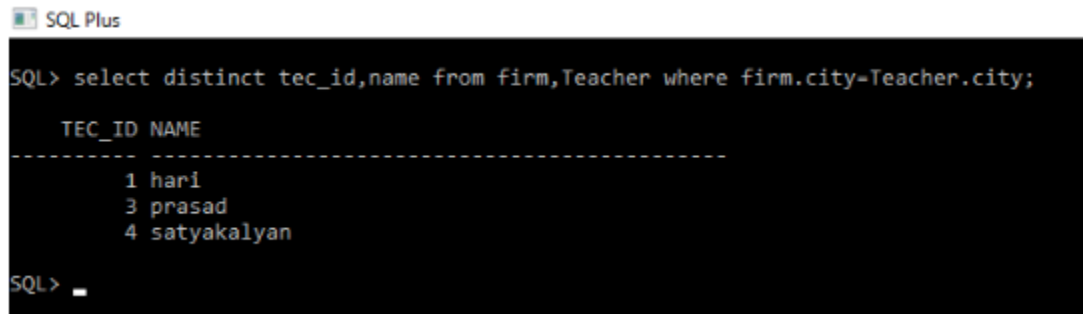insert into Tele_enquiry values(1,105);

insert into Tele_enquiry values(3,104);

insert into Tele_enquiry values(2,105);

SQL QUERIES RELATED TO REPORT GENERATION

1) Name all teachers who live in the same city as that of their respective firm.

   Select DISTINCT Tec_id, name from firm, teacher where firm.city=teacher.city;
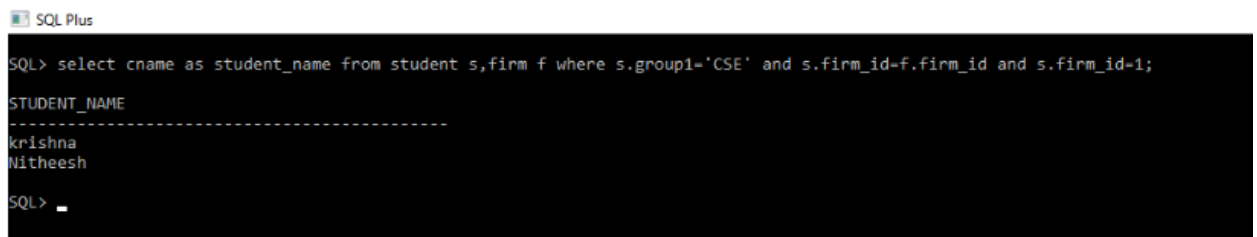
```
SQL Plus

SQL> select distinct tec_id,name from firm,Teacher where firm.city=Teacher.city;

    TEC_ID NAME
---------- ----------------------------------------
         1 hari
         3 prasad
         4 satyakalyan

SQL> _
```

2) Name all the students who got registered for firm 1 and prefers branch CSE.

   Select cname as student_name from student s, firm f where s.group1="CSE" and s.fsirm_ID =firm.firmid and student.fid=1;

```
SQL Plus

SQL> select cname as student_name from student s,firm f where s.group1='CSE' and s.firm_id=f.firm_id and s.firm_id=1;

STUDENT_NAME
-------------------------------------------
krishna
Nitheesh

SQL> _
```

3) Name the students with their marks in inter whose marks are greater than 940 and are enquired by representative with id 102.

   Select DISTINCT name as student_name, Intermarks from student s, Rep_enquiry r where s.Intermarks>910 and r.S_ID=102;

```
SQL Plus

SQL> select distinct cname as student_name,Inter_marks from student s,Rep_enquiry r where s.Inter_marks>910 and r.S_ID=102;

STUDENT_NAME                                  INTER_MARKS
--------------------------------------------- -----------
Vignesh                                               942
krishna                                               917

SQL>
```

4) Name the representative who still didn't enquire any student.

Select * from Rep_enquiry where S_ID is NULL;


```
SQL Plus

SQL> select * from Rep_enquiry where S_ID IS null;

no rows selected

SQL>
```

5) Name the teachers with hari in their name and count them.

Select tec_id, name from teacher where name like '%hari%';


```
SQL Plus

SQL> select Tec_ID,name from teacher where name like '%hari%';

    TEC_ID NAME
---------- ----------------------------------------------
         1 hari
         5 harisimha

SQL>
```

6) Mention the different areas from where staff comes from.

Select DISTINCT Street from staff;

```
SQL Plus

SQL> select distinct street from staff;

STREET
-------------------------------------------
vaddeswaram,
butchayya nagar
ntr circle
Hanuman nagar
benz circle
Auto nagar

6 rows selected.

SQL>
```

7) List the coaching that have fees greater than 1000 and less than 1700.

Select c_no, course, fees from coaching where fees>1000 and fees<1700;

```
SQL Plus

SQL> select c_no,course,fees from coaching where fees>1000 and fees<1700;

    C_NO COURSE                                          FEES
---------- -------------------------------------------- ----------
       33 english                                       1500
       34 speaking                                      1400
       36 chemistry                                     1600

SQL>
```
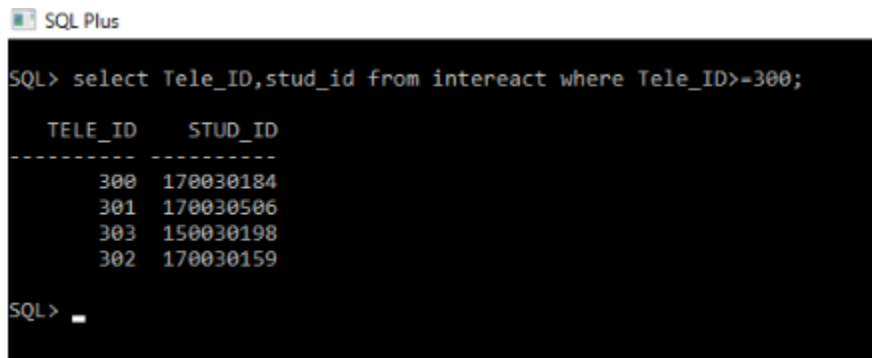
8) List of states which are different from their nationality

Select distinct state from student

```
SQL Plus

SQL> select distinct state from student;

STATE
-------------------------------------------
Andhra pradesh
Telangana

SQL>
```

9) List of Telecaller ID and Stud_ID from Intereact where tele_id>=300

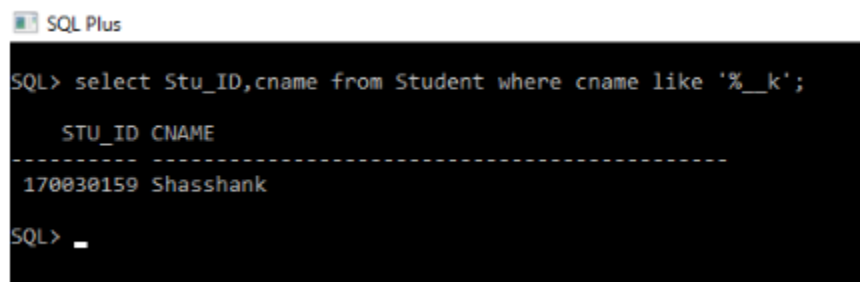Select Tele_ID, Stud_ID FROM Intereact where Tele_ID>=300

```
SQL Plus

SQL> select Tele_ID,stud_id from intereact where Tele_ID>=300;

   TELE_ID    STUD_ID
---------- ----------
       300  170030184
       301  170030506
       303  150030198
       302  170030159

SQL>
```

10) List of the stu_id, cname from students whose name ends with k

Select Stu_ID , cname from Student where cname like '%__k';

```
SQL Plus

SQL> select Stu_ID,cname from Student where cname like '%__k';

   STU_ID CNAME
---------- ------------------------------------------------
170030159 Shasshank

SQL>
```

11) List of stu_id, tenth marks, Inter_marks from student where   Inter_marks
>=900 order by Inter_marks desc;

Select Stu_ID, cname, Inter_marks, email_ID from student Inter_marks
>=900 order by Inter_marks desc

```
SQL Plus

SQL> select Stu_id,cname,tenth_marks,Inter_marks,email_id from Student where Inter_marks >=900 order by  Inter_marks desc;

   STU_ID CNAME                                     TENTH_MARKS INTER_MARKS
---------- --------------------------------------- ----------- -----------
EMAIL_ID
----------------------------------------------------------
 170030506 Vignesh                                          7         942
Kailaswarsaivignesh@gmail.com

 170030184 krishna                                          8         917
Krishnachakilela@gmail.com


SQL>
```

12) List of staff members where staff belongs to the state Andhra Pradesh

   Select S_ID, name from staff where state= 'Andhra Pradesh'

```
SQL Plus

SQL> select S_id,name from Staff where  state='andhra pradesh';
       S_ID NAME
---------- -------------------------------------------
       100 anusha
       101 chandu
       102 prem
       103 sai
       104 sana
       105 satya

6 rows selected.

SQL> _
```
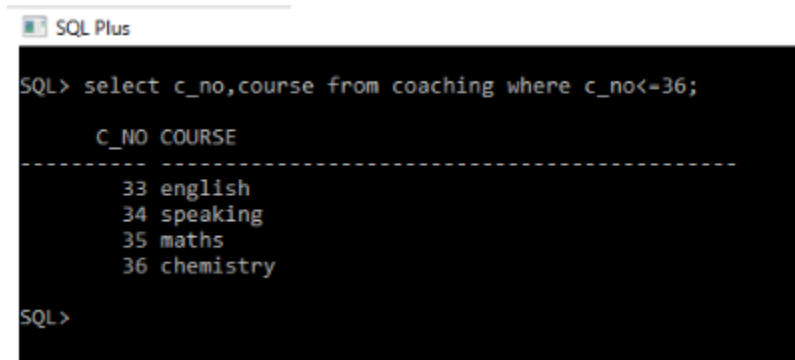
13) List of Neet_clgid, name from Neet academy

   Select Neet_clgid, name from Neet_Academy order by Neet_clgid

```
SQL Plus

SQL> select Neet_clgid,name from neet_academy order by neet_clgid;

NEET_CLGID NAME
---------- -------------------------------------------
       150 rao_neet_academy
       151 raj_neet_academy

SQL> _
```

14) List of course no and course from coaching table
   Select c_no, course from coaching where c_no<=36

SQL Plus

```
SQL> select c_no,course from coaching where c_no<=36;

    C_NO COURSE
---------- ----------------------------------------------
      33 english
      34 speaking
      35 maths
      36 chemistry

SQL>
```

CONCLUSION

In Vivans Educational Consultancy we created database that can serve as consultancy in educational domain. It contains staff members which belongs to different departments are divided into receptionists, representatives and tele-caller's .In this project the student has freedom to choose his own firm and get registered. The medical Neet academy is offered by various firms. The academy offers various coaching like long term and short term. All the information regarding the tele caller interacting with student will be recorded such as duration of call, date of call. Various teachers are employed in each firm. They teach the subject they preferred.