



**DBMS**

**J COMPONENT**

**NAME-MOHIT VERMA**

**REGISTER NO.-17BIT0284**

**SUBMITTED TO-Prof SENTHIL  
KUMAR NC**

**TOPIC- ONLINE VOTING SYSTE**

## Module 1:

# Analysis Collection of requirements based on the project title. Then analyze it.

### ABSTRACT

This project aims at creating an online voting System or E-Voting which can be used by voters to vote and elect these candidates from their comfort zone. Specifically, the voting system consisted of server services which are each linked with a database for storing a persistent data.

The main concept of this project is to allow voters to cast their vote by online method. This is a simple, safe and secure method that takes minimum of time. We proceed our project with the assumption that each voter has a valid Voter ID sharing his/her unique identity including other data. It is one of the greatest advantage for person who are not available during voting day in their area and also for handicapped person who can't walk to cast their vote. This helps them to be part of candidate and their leader selection.

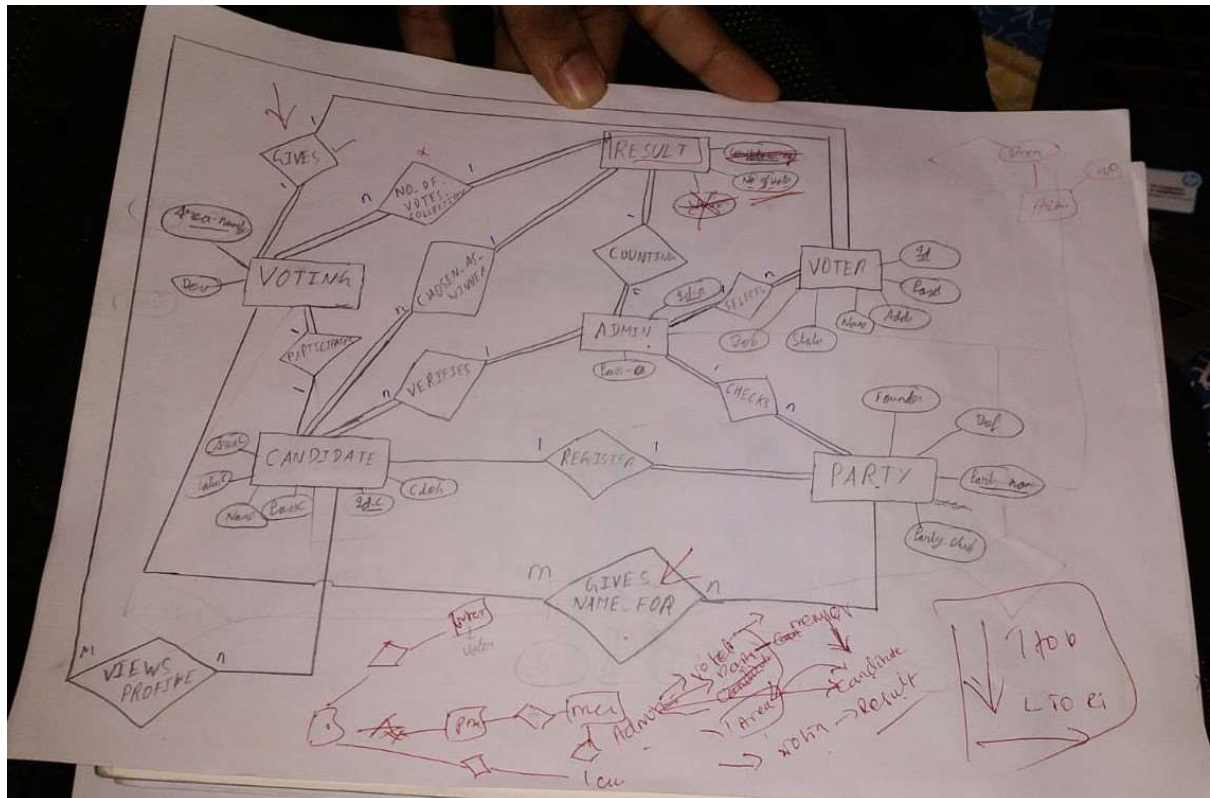
These 'E-Voting' system should be implemented.

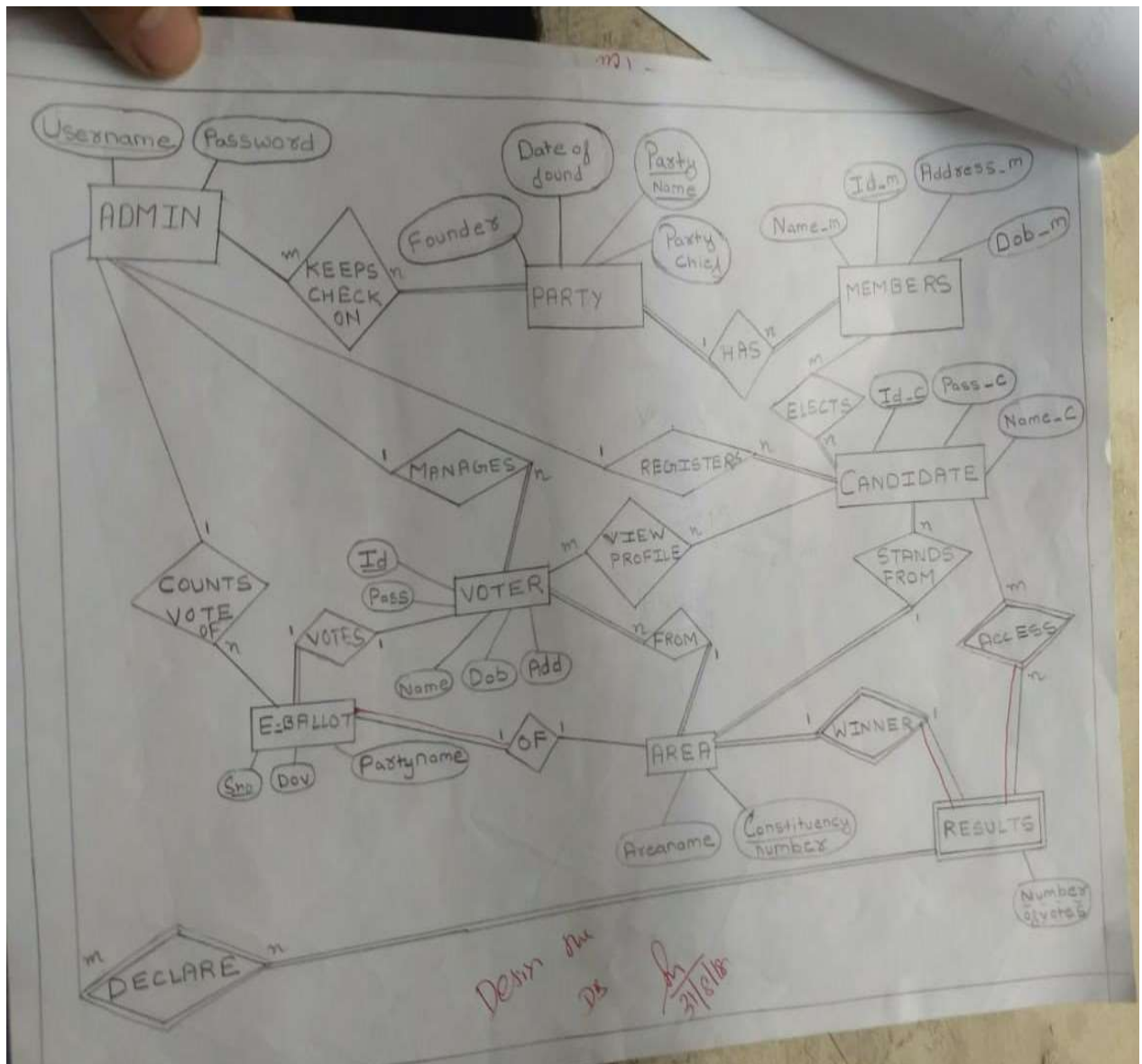
## REQUIREMENTS

- E-voting system is controlled by Election Commission of the country. In Election Commission there are four or five people who are admins and they have unique ID and password to access the whole system. The candidate and voter must belong to a particular constituency.
- The candidate and voter should have an age above 18 years.
- The administration should have proper control over Statics of Votes.
- The proper validation of voter's and candidate's should be taken care of.
- Voters must have Voter ID
- Candidates should have Candidate ID
- Admin ID for administration.

## Module 2: Design

Draw a neat ER diagram with all the specifications based on requirements. Use appropriate structural constraints.





## Module 3: Mapping

Map ER diagram into table using ER to Relational mapping algorithm



Admin

<u>Username</u>	Password
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PARTY

Founder	Date of Found	<u>Party name</u>	Party Chief
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Members

<u>Name_m</u>	<u>Id_m</u>	Address_m	Dob_m	Party Name	<u>Id_c</u>
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Candidate

<u>Id_c</u>	Pass_c	Name_c	Constituency number	Username
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Results

Number of votes	<u>Id_c</u>	Constituency number	Username
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Area

Area name	<u>Constituency number</u>
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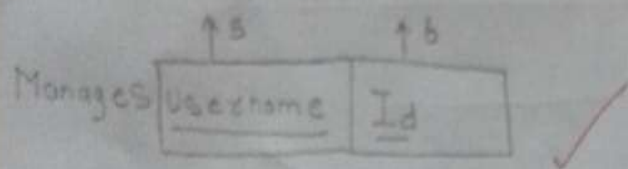
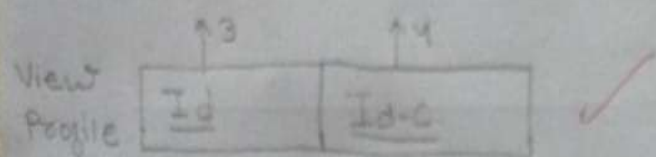
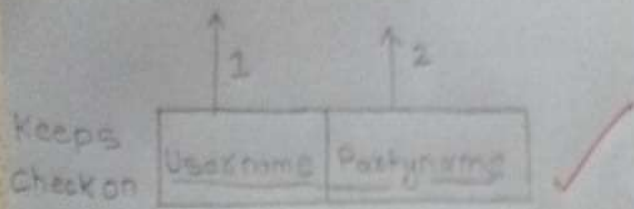
E-Ballot

<u>S.no</u>	Date of vote	Party name	Constituency number	<u>Id</u>	Username
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Voter

<u>Id</u>	Pass	Name	DOB	Address	Constituency number
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Instant  
by  
21/9/16



# Module 4: Implementation

## (Simple Queries)

### Create and insert

#### **ADMIN**

```
SQL> create table admin(  
2  username varchar2(28) constraint admin_pk primary key,  
3  password varchar2(20));
```

Table created.

#### **PARTY**

```
SQL> create table party(  
2  party_name varchar2(50) constraint party_pk primary key,  
3  founder varchar2(50),  
4  date  
_of_found date,  
5  party_chief varchar2(40));
```

Table created.

#### **Members**

```
SQL> create table members(  
2  name_m varchar2(30),  
3  id_m number(15) constraint member_pk primary key,
```



```
4 address_m varchar2(40),
5 Dob_m date,
6 party_name varchar2(50),
7 id_c number(15));
```

Table created.

## **CANDIDATE**

```
SQL> create table candidate(
2 id_c number(15) constraint candidate_pk primary key,
3 password_c varchar2(20),
4 name_c varchar2(30),
5 constituency_number number(15),
6 username varchar2(28));
```

Table created.

## **RESULTS**

```
SQL> create table results(
2 number_of_votes number(15),
3 id_c number(15),
4 constituency_number number(15),
5 username varchar2(28),
6 constraint results_pk primary key(number_of_votes,id_c,constituency_number,username));
```

Table created.

## **AREA**

```
SQL> create table area(
2 area_name varchar2(40),
3 constituency_number number(15) constraint area_pk primary key);
```

Table created.

### **E\_ballot**

```
SQL> create table e_ballot(  
  2 s_no number(15) constraint e_ballot_pk primary key,  
  3 date_of_vote date,  
  4 party_name varchar2(50),  
  5 constituency_number number(15),  
  6 id number(15),  
  7 username varchar2(28));
```

Table created.

### **VOTER**

```
SQL> create table voter(  
  2 id number(15) constraint voter_pk primary key,  
  3 pass varchar2(20),  
  4 name varchar2(35),  
  5 DOB date,  
  6 address varchar2(55),  
  7 constituency_number number(15));
```

Table created.

### **Keeps\_check\_on**

```
SQL> create table keeps_check_on(  
  2 username varchar2(28),  
  3 party_name varchar2(50),  
  4 constraint keeps_check_on_pk primary key(username,party_name));
```

Table created.

### **View\_profile**

```
SQL> create table view_profile(  
2 id number(15),  
3 id_c number(15),  
4 constraint view_profile_pk primary key(id,id_c));
```

Table created.

### **Manages**

```
SQL> create table manages(  
2 username varchar2(28),  
3 id number(15),  
4 constraint manages_pk primary key(username,id));
```

Table created.

### **ALTER COMMANDS**

```
SQL> alter table members add constraint members_fk  
2 foreign key(id_c) references candidate(id_c);
```

Table altered.

```
SQL> alter table candidate add constraint candidate_fk  
2 foreign key(username) references admin(username);
```

Table altered.

```
SQL> alter table candidate add constraint candidate_fk1  
2 foreign key(constituency_number) references area(constituency_number);
```

Table altered.

SQL> alter table results

2 add constraint results\_fk foreign key(id\_c) references candidate(id\_c);

Table altered.

SQL> alter table results

2 add constraint results\_fk1 foreign key(constituency\_number) references  
area(constituency\_number);

Table altered.

SQL> alter table results

2 add constraint results\_fk2 foreign key(username) references admin(username);

Table altered.

### **E-ballot**

SQL> alter table e\_ballot

2 add constraint e\_ballot\_fk2 foreign key(party\_name) references party(party\_name);

Table altered.

SQL> alter table e\_ballot

2 add constraint e\_ballot\_fk1 foreign key(constituency\_number) references  
area(constituency\_number);

Table altered.

SQL> alter table e\_ballot

2 add constraint e\_ballot\_fk foreign key(id) references voter(id);

Table altered.

```
SQL> alter table e_ballot
```

```
2 add constraint e_ballot_fk4 foreign key(username) references admin(username);
```

Table altered.

## **VOTER**

```
SQL> alter table voter
```

```
2 add constraint voter_fk foreign key(constituency_number) references  
area(constituency_number);
```

Table altered.

## **KEEPS\_CHECK\_ON**

```
SQL> alter table keeps_check_on
```

```
2 add constraint keeps_check_on_fk foreign key(username) references admin(username);
```

Table altered.

```
SQL> alter table keeps_check_on
```

```
2 add constraint keeps_check_on_fk1 foreign key(party_name) references party(party_name);
```

Table altered.

## **VIEW\_PROFILE**

```
SQL> alter table view_profile
```

```
2 add constraint view_profile_fk1 foreign key(id) references voter(id);
```

Table altered.

```
SQL> alter table view_profile
```

```
2 add constraint view_profile_fk foreign key(id_c) references candidate(id_c);
```

Table altered.

### **MANAGES**

```
SQL> alter table manages
```

```
2 add constraint manages_fk foreign key(username) references admin(username);
```

Table altered.

```
SQL> alter table manages
```

```
2 add constraint manages_fk1 foreign key(id) references voter(id);
```

Table altered.

### **INSERT INTO ADMIN VALUES**

```
SQL> insert into admin values('mohitverma6161','mohit123');
```

1 row created.

```
SQL> insert into admin values('aayush123','canadanoor');
```

1 row created.

```
SQL> insert into admin values('purushottam123','gangleader');
```

1 row created.

```
SQL> insert into admin values('prateek','coder');
```

1 row created.

### **INSERT INTO AREA VALUES**

```
SQL> insert into area values('gandhinagar',112233);
```



1 row created.

```
SQL> insert into area values('varanasi',221133);
```

1 row created.

```
SQL> insert into area values('yelagiri',998869);
```

1 row created.

```
SQL> insert into area values('ballia',224050);
```

1 row created.

```
SQL> insert into area values('ballia',224052);
```

1 row created.

### **INSERT INTO VOTER VALUES**

```
SQL> insert into voter values(123,'dbms1','Adarsh','15-AUG-1998','Bhubhaneshwar',112233);
```

1 row created.

```
SQL> insert into voter values(111,'dbms2','Siddharth','26-JAN-1997','Delhi',998869);
```

1 row created.

```
SQL> insert into voter values(222,'dbms3','Sankalp','02-OCT-1996','Ghaziabad',998869);
```

1 row created.

```
SQL> insert into voter values(333,'dbms4','Deepak','14-NOV-1996','Bengaluru',224050);
```

1 row created.

```
SQL> insert into voter values(444,'dbms5','Yuvi','28-OCT-1995','Ballia',224050);
```

1 row created.

```
SQL> insert into voter values(555,'dbms6','Dhoni','28-DEC-1995','Ranchi',224050);
```

1 row created.

```
SQL> insert into voter values(666,'dbms7','Shikhar','11-MAR-1993','Lucknow',224050);
```

1 row created.

```
SQL> insert into voter values(777,'dbms8','Rohit','10-JAN-1993','Ludhiana',998869);
```

1 row created.

```
SQL> insert into voter values(888,'dbms9','Suresh','28-DEC-1999','Hisar',112233);
```

1 row created.

```
SQL> insert into voter values(999,'dbms10','Ajinkya','28-NOV-1999','Chennai',224052);
```

1 row created.

```
SQL> insert into voter values(998,'dbms11','Pandya','21-JUN-1999','Chennai',224052);
```

1 row created.

```
SQL> insert into voter values(988,'dbms12','Krunal','21-JUN-1999','Pondicherry',998869);
```

1 row created.

#### **INSERT INTO PARTY VALUES**

```
SQL> insert into party values('KKP','kavi','1-AUG-1964','ravi');
```

1 row created.

```
SQL> insert into party values('RJD','lalu','1-AUG-1964','nitish');
```

1 row created.

```
SQL> insert into party values('SHIVSENA','Thakare','14-NOV-1950','Shaktiman');
```

1 row created.

```
SQL> insert into party values('BANARAS MUKTI MORCHA','Mohit','14-FEB-1999','Rohit');
```

1 row created.

#### **INSERT INTO CANDIDATDE VALUES**

```
SQL> insert into candidate values(111,'pass1','Vishwas',224052,'mohitverma6161');
```

1 row created.

```
SQL> insert into candidate values(666,'pass2','Mallya',998869,'aayush123');
```

1 row created.

```
SQL> insert into candidate values(555,'aloo_se_sona','Pappu',112233,'purushottam123');
```

1 row created.

```
SQL> insert into candidate values(212,'shaant','Manmphan',224050,'mohitverma6161');
```

1 row created.

#### **INSERT INTO MEMBER VALUES**

```
SQL> insert into members values('Pappu',777,'Ameethi','14-NOV-1985','RJD',555);
```

1 row created.

```
SQL> insert into members values('Raj',854,'Faridabad','30-MAR-1994','KKP',212);
```

1 row created.

```
SQL> insert into members values('Gautam',666,'Hisar','30-OCT-1998','BANARAS MUKTI MORCHA',111);
```

1 row created.

```
SQL> insert into members values('Vidit',742,'Kurushetra','30-NOV-1998','BANARAS MUKTI MORCHA',111);
```

1 row created.

#### **INSERT INTO E\_BALLOT VALUES**

```
SQL> insert into e_ballot values(12345,'14-OCT-2018','KKP',112233,123,'prateek');
```

1 row created.

```
SQL> insert into e_ballot values(12346,'18-OCT-2018','RJD',224050,333,'mohitverma6161');
```

1 row created.

```
SQL> insert into e_ballot values(12347,'04-NOV-2018','BANARAS MUKTI  
MORCHA',998869,222,'purushottam123');
```

1 row created.

```
SQL> insert into e_ballot values(12348,'10-NOV-2018','SHIVSENA',998869,998,'mohitverma6161');
```

1 row created.

```
SQL> insert into e_ballot values(12349,'14-OCT-2018','KKP',112233,777,'prateek');
```

1 row created.

```
SQL> insert into e_ballot values(12350,'14-OCT-2018','KKP',112233,666,'mohitverma6161');
```

1 row created.

```
SQL> insert into e_ballot values(12351,'14-OCT-2018','KKP',112233,888,'mohitverma6161');
```

1 row created.

```
SQL> insert into e_ballot values(12352,'14-OCT-2018','KKP',112233,988,'purushottam123');
```

1 row created.

```
SQL> insert into e_ballot values(12353,'14-OCT-2018','BANARAS MUKTI  
MORCHA',112233,111,'mohitverma6161');
```

1 row created.

```
SQL> insert into e_ballot values(12354,'28-OCT-2018','BANARAS MUKTI  
MORCHA',112233,444,'mohitverma6161');
```

1 row created.

#### **INSERT INTO KEEPS\_CHECK\_ON VALUES**

SQL> insert into keeps\_check\_on values('mohitverma6161','RJD');

1 row created.

SQL> insert into keeps\_check\_on values('mohitverma6161','BANARAS MUKTI MORCHA');

1 row created.

SQL> insert into keeps\_check\_on values('mohitverma6161','SHIVSENA');

1 row created.

SQL> insert into keeps\_check\_on values('prateek','KKP');

1 row created.

SQL> insert into keeps\_check\_on values('aayush123','RJD');

1 row created.

#### **INSERT INTO MANAGES VALUES**

SQL> insert into manages values('mohitverma6161',123);

1 row created.

SQL> insert into manages values('mohitverma6161',111);



1 row created.

```
SQL> insert into manages values('aayush123',222);
```

1 row created.

```
SQL> insert into manages values('purushottam123',333);
```

1 row created.

```
SQL> insert into manages values('prateek',123);
```

1 row created.

#### **INSERT INTO VIEW\_PROFILE VALUES**

```
SQL> insert into view_profile values(123,666);
```

1 row created.

```
SQL> insert into view_profile values(123,111);
```

1 row created.

```
SQL> insert into view_profile values(123,212);
```

1 row created.

```
SQL> insert into view_profile values(111,212);
```

1 row created.

```
SQL> insert into view_profile values(222,666);
```

1 row created.

```
SQL> insert into view_profile values(333,555);
```

1 row created.

```
SQL> insert into view_profile values(222,555);
```

1 row created.

```
SQL> insert into view_profile values(111,555);
```

1 row created.

```
SQL> insert into view_profile values(111,666);
```

1 row created.

```
SQL> insert into view_profile values(111,111);
```

1 row created.

#### **INSERT INTO RESULTS VALUES**

```
SQL> insert into results values(4,111,224052,'mohitverma6161');
```

1 row created.

```
SQL> insert into results values(3,666,998869,'aayush123');
```

1 row created.

```
SQL> insert into results values(0,555,112233,'purushottam123');
```

1 row created.

```
SQL> insert into results values(3,212,224050,'mohitverma6161');
```

1 row created.

## ALTER COMMANDS

```
SQL> alter table candidate modify name_c varchar2(35);
```

Table altered.

```
SQL> alter table candidate modify name_c varchar2(30);
```

Table altered.

```
SQL> alter table admin add(name varchar2(30));
```

Table altered.

```
SQL> alter table admin drop column name;
```

Table altered.

```
SQL> alter table admin rename column password to pass;
```

Table altered.

```
SQL> alter table admin rename column pass to password;
```

Table altered.

# DELETE COMMANDS

```
SQL> delete from view_profile where id=111 and id_c=111;
```

1 row deleted.

```
SQL> insert into view_profile values(111,111);
```

1 row created.

```
SQL> delete from manages where username='aayush123';
```

1 row deleted.

```
SQL> insert into manages values('aayush123',222);
```

1 row created.

# UPDATE COMMANDS

```
SQL> update manages set id=111 where username='prateek';
```

1 row updated.

```
SQL> update manages set id=123 where username='prateek';
```

1 row updated.

```
SQL> update keeps_check_on set party_name='KKP' where username='aayush123';
```

1 row updated.

```
SQL> update keeps_check_on set party_name='RJD' where username='aayush123';
```

1 row updated.

## Select with where clause

SQL> select username from admin where username like '%m%';

USERNAME

-----

mohitverma6161

purushottam123

SQL> select name from voter where address='Chennai';

NAME

-----

Ajinkya

Pandya

SQL> select party\_name,party\_chief from party where founder='lalu';

PARTY\_NAME

-----

PARTY\_CHIEF

-----

RJD

Nitish

SQL> select name\_m from members where address\_m='Hisar' and party\_name='BANARAS MUKTI MORCHA';

NAME\_M

-----

Gautam

```
SQL> select s_no from e_ballot where date_of_vote='14-OCT-18';
```

```
      S_NO
-----
      12345
      12349
      12350
      12351
      12352
      12353
```

6 rows selected.

```
SQL> select name_c from candidate where password_c='aloo_se_sona';
```

```
NAME_C
-----
```

Pappu

## Any five comparison operators

```
SQL> select name_m from members where id_m>220;
```

```
NAME_M
-----
```

Pappu

Raj

Gautam

Vidit

```
SQL> select party_name from members where id_m>500 and id_c>250;
```



PARTY\_NAME

-----

RJD

SQL> select address\_m from members where length(address\_m)=10;

ADDRESS\_M

-----

Kurushetra

SQL> select id\_c from candidate where constituency\_number>10000 and  
constituency\_number<200000;

ID\_C

-----

555

SQL> select id\_c from candidate where password\_c like('p%');

ID\_C

-----

111

666

SQL> select name\_c from candidate where name\_c like('%p%');

NAME\_C

-----

Pappu

Manmphan

```
SQL> select pass from voter where name like('%p%');
```

PASS

-----

dbms3

dbms4

```
SQL> select pass from voter where name not like('%s%');
```

PASS

-----

dbms2

dbms3

dbms4

dbms5

dbms6

dbms7

dbms8

dbms10

dbms11

dbms12

10 rows selected.

```
SQL> select constituency_number from e_ballot where id>250;
```

CONSTITUENCY\_NUMBER

-----

224050

## Any five Aggregate functions

```
SQL> select count(distinct id) from e_ballot;
```

```
COUNT(DISTINCTID)
```

```
-----
```

```
10
```

```
SQL> select max(number_of_votes) from results;
```

```
MAX(NUMBER_OF_VOTES)
```

```
-----
```

```
4
```

```
SQL> select avg(id) from voter;
```

```
AVG(ID)
```

```
-----
```

```
592
```

```
SQL> select avg(id_c),variance(id_m) from members;
```

```
AVG(ID_C) VARIANCE(ID_M)
```

```
-----
```

```
247.25 6094.91667
```

```
SQL> select sum(constituency_number) from area;
```

```
SUM(CONSTITUENCY_NUMBER)
```

```
-----
```

```
1780337
```

```
SQL> select count(id) from manages;
```

```
COUNT(ID)
```

```
-----
```

```
SQL> select sum(id),max(id_c) from view_profile;
```

```
SUM(ID) MAX(ID_C)
-----
1590    666
```

```
SQL> select sum(id),max(id_c),sum(constituency_number) from view_profile,area;
```

```
SUM(ID) MAX(ID_C) SUM(CONSTITUENCY_NUMBER)
-----
7950    666      17803370
```

## Any five numeric functions

```
SQL> select power(id,2) from voter;
```

```
POWER(ID,2)
-----
12321
15129
49284
110889
197136
308025
443556
603729
788544
976144
996004
```

POWER(ID,2)

-----

998001

12 rows selected.

SQL> select cos(id\_m) from members;

COS(ID\_M)

-----

.999844374

.834190114

-.51771822

.871177003

SQL> select mod(id\_c,id\_m) from members;

MOD(ID\_C,ID\_M)

-----

555

212

111

111

SQL> select sqrt(number\_of\_votes) from results;

SQRT(NUMBER\_OF\_VOTES)

-----

0

1.73205081

1.73205081

2

SQL> select ln(s\_no) from e\_ballot;

LN(S\_NO)

-----

9.4210064

9.4210874

9.4211684

9.42124939

9.42133037

9.42141134

9.42149231

9.42157327

9.42165423

9.42173518

10 rows selected.

SQL> select cos(id),cos(id\_c) from view\_profile;

COS(ID) COS(ID\_C)

-----

-.50254432 -.50254432

-.50254432 -.05747243

-.50254432 -.487214

-.50254432 .999844374

-.88796891 -.50254432

-.88796891 -.05747243

-.88796891 .999844374

-.49489841 -.487214

-.49489841 .999844374

.999961093 -.487214

10 rows selected.

## Any five String Functions

SQL> select lower(name\_c) from candidate;

LOWER(NAME\_C)

-----

vishwas

mallya

pappu

manmphan

SQL> select upper(username) from admin;

UPPER(USERNAME)

-----

AAYUSH123

MOHITVERMA6161

PRATEEK

PURUSHOTTAM123

SQL> select ltrim(founder,'k') from party;

LTRIM(FOUNDER,'K')

-----

avi

lalu

Thakare

Mohit

```
SQL> select ltrim(pass,'dbms') from voter;
```

LTRIM(PASS,'DBMS')

-----

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

LTRIM(PASS,'DBMS')

-----

- 12

12 rows selected.

```
SQL> select rtrim(party_name,'s') from party;
```

RTRIM(PARTY\_NAME,'S')

-----

BANARAS MUKTI MORCHA

KKP

RJD



SHIVSENA

```
SQL> select translate(area_name,'ba','gk') from area;
```

TRANSLATE(AREA\_NAME,'BA','GK')

-----

gkndhinkgkr

vkrknksi

yelkgiri

gkllik

gkllik

```
SQL> select replace(name_c,'Mal','ku') from candidate;
```

REPLACE(NAME\_C,'MAL','KU')

-----

Vishwas

kulya

Pappu

Manmphan

```
SQL> select substr(username,4,6) from admin;
```

SUBSTR

-----

ush123

itverm

teek

ushott

```
SQL> select lpad(name,13,'@') from voter;
```

```
LPAD(NAME,13,
```

```
-----
```

```
@@@@@@Adarsh
```

```
@@@@Siddharth
```

```
@@@@@@Sankalp
```

```
@@@@@@Deepak
```

```
@@@@@@Yuvi
```

```
@@@@@@Dhoni
```

```
@@@@@@Shikhar
```

```
@@@@@@Rohit
```

```
@@@@@@Suresh
```

```
@@@@@@Ajinkya
```

```
@@@@@@Pandya
```

```
LPAD(NAME,13,
```

```
-----
```

```
@@@@@@Krunal
```

```
12 rows selected.
```

```
SQL> select rpad(name_m,13,'@') from members;
```

```
RPAD(NAME_M,1
```

```
-----
```

```
Pappu@@@@@@@
```

```
Raj@@@@@@@@@
```

```
Gautam@@@@@
```

```
Vidit@@@@@@@
```

```
SQL> select chr(id) from voter;
```

C

-

o

{

█

M

⌋

+

Ü

x

■

μ

C

-

τ

12 rows selected.

```
SQL> select length(username) from results where number_of_votes=4;
```

LENGTH(USERNAME)

-----

14

```
SQL> select rpad(name_m,13,'@') from members where id_c=111;
```

```
RPAD(NAME_M,1
```

```
-----
```

```
Gautam@@@@@@
```

```
Vidit@@@@@@
```

## Any five date functions

```
SQL> select add_months(date_of_found,3) from party where party_name='KKP';
```

```
ADD_MONTH
```

```
-----
```

```
01-NOV-64
```

```
SQL> select last_day(date_of_vote) from e_ballot;
```

```
LAST_DAY(
```

```
-----
```

```
31-OCT-18
```

```
31-OCT-18
```

```
30-NOV-18
```

```
30-NOV-18
```

```
31-OCT-18
```

```
31-OCT-18
```

```
31-OCT-18
```

```
31-OCT-18
```

```
31-OCT-18
```

```
31-OCT-18
```

```
10 rows selected.
```

```
SQL> select round(dob,'month') from voter;
```

ROUND(DOB

-----

01-AUG-98

01-FEB-97

01-OCT-96

01-NOV-96

01-NOV-95

01-JAN-96

01-MAR-93

01-JAN-93

01-JAN-00

01-DEC-99

01-JUL-99

ROUND(DOB

-----

01-JUL-99

12 rows selected.

SQL> select (sysdate-dob)/365 from voter;

(SYSDATE-DOB)/365

-----

20.190008

21.740693

22.0585012

21.940693

22.990008  
22.8228847  
25.6228847  
25.7872683  
18.820145  
18.9023368  
19.340693

(SYSDATE-DOB)/365

-----

19.340693

12 rows selected.

SQL> select floor((sysdate-dob)/365) from voter;

FLOOR((SYSDATE-DOB)/365)

-----

20

21

22

21

22

22

25

25

18

18

19

FLOOR((SYSDATE-DOB)/365)

12 rows selected.

SQL> select next\_day(date\_of\_vote,'sunday') from e\_ballot;

NEXT\_DAY(  
-----

21-OCT-18  
21-OCT-18  
11-NOV-18  
11-NOV-18  
21-OCT-18  
21-OCT-18  
21-OCT-18  
21-OCT-18  
21-OCT-18  
04-NOV-18

10 rows selected.

SQL> select next\_day(dob,'friday') from voter;

NEXT\_DAY(  
-----

21-AUG-98  
31-JAN-97  
04-OCT-96  
15-NOV-96  
03-NOV-95

29-DEC-95

12-MAR-93

15-JAN-93

31-DEC-99

03-DEC-99

25-JUN-99

NEXT\_DAY(  
-----

25-JUN-99

12 rows selected.

SQL> select greatest(to\_date(dob),to\_date(date\_of\_vote)) from voter,e\_ballot;

GREATEST(  
-----

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

GREATEST(  
-----



18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

GREATEST(  
-----

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

GREATEST(  
-----

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

GREATEST(  
-----

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

GREATEST(  
-----

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

GREATEST(  
-----

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

GREATEST(  
-----

14-OCT-18

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

GREATEST(  
-----

14-OCT-18

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

GREATEST(  
-----

28-OCT-18

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

GREATEST(

-----

14-OCT-18

18-OCT-18

04-NOV-18

10-NOV-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

14-OCT-18

28-OCT-18

120 rows selected.

SQL> select trunc(dob,'month') from voter;

TRUNC(DOB

-----

01-AUG-98

01-JAN-97

01-OCT-96

01-NOV-96

01-OCT-95

01-DEC-95

01-MAR-93

01-JAN-93

01-DEC-99

01-NOV-99

01-JUN-99

TRUNC(DOB

-----  
01-JUN-99

12 rows selected.

## Any three conversion functions

SQL> select to\_char(date\_of\_vote,'DDth fmmonth yyyy') from e\_ballot;

TO\_CHAR(DATE\_OF\_VOT  
-----

14TH october 2018  
18TH october 2018  
04TH november 2018  
10TH november 2018  
14TH october 2018  
14TH october 2018  
14TH october 2018  
14TH october 2018  
14TH october 2018  
28TH october 2018

10 rows selected.

SQL> select to\_char(dob,'dd/mm/yyyy') from voter;

TO\_CHAR(DO  
-----

15/08/1998  
26/01/1997  
02/10/1996  
14/11/1996  
28/10/1995

28/12/1995

11/03/1993

10/01/1993

28/12/1999

28/11/1999

21/06/1999

TO\_CHAR(DO

-----

21/06/1999

12 rows selected.

SQL> select to\_char(dob,'DDth MONTH yyyy') from voter;

TO\_CHAR(DOB,'DDTHMO

-----

15TH AUGUST 1998

26TH JANUARY 1997

02ND OCTOBER 1996

14TH NOVEMBER 1996

28TH OCTOBER 1995

28TH DECEMBER 1995

11TH MARCH 1993

10TH JANUARY 1993

28TH DECEMBER 1999

28TH NOVEMBER 1999

21ST JUNE 1999

TO\_CHAR(DOB,'DDTHMO

-----

21ST JUNE 1999

12 rows selected.

```
SQL> select to_number('89') from dual;
```

TO\_NUMBER('89')

```
-----  
      89
```

```
SQL> select vsize(username) from admin;
```

VSIZE(USERNAME)

```
-----  
      9  
     14  
      7  
     14
```

## GROUP BY AND HAVING

```
SQL> select id_m,party_name,count(*) from members group by id_m,party_name;
```

ID_M	PARTY_NAME	COUNT(*)
777	RJD	1
666	BANARAS MUKTI MORCHA	1
742	BANARAS MUKTI MORCHA	1
854	KKP	1

```
SQL> select party_name,date_of_found from party group by date_of_found,party_name;
```



PARTY_NAME	DATE_OF_F
RJD	01-AUG-64
KKP	01-AUG-64
SHIVSENA	14-NOV-50
BANARAS MUKTI MORCHA	14-FEB-99

SQL> select area\_name,count(\*) from area group by area\_name having count(\*)>1;

AREA_NAME	COUNT(*)
ballia	2

## ORDER BY CLAUSE

SQL> select party\_name,date\_of\_found from party order by party\_name;

PARTY_NAME	DATE_OF_F
BANARAS MUKTI MORCHA	14-FEB-99
KKP	01-AUG-64
RJD	01-AUG-64
SHIVSENA	14-NOV-50

SQL> select name,address from voter order by name;

NAME
Adarsh
Bhubhaneshwar
Ajinkya

ADDRESS
Adarsh
Bhubhaneshwar
Ajinkya

Chennai

Deepak

Bengaluru

NAME

-----

ADDRESS

-----

Dhoni

Ranchi

Krunal

Pondicherry

Pandya

Chennai

NAME

-----

ADDRESS

-----

Rohit

Ludhiana

Sankalp

Ghaziabad

Shikhar

Lucknow

NAME

-----

ADDRESS

-----

Siddharth

Delhi

Suresh

Hisar

Yuvi

Ballia

12 rows selected.

## Three queries based on set operators

SQL> select id from voter where length(name)>7

2 union

3 select id\_c from candidate;

ID

-----

111

212

555

666

```
SQL> select id from voter
```

```
2 minus
```

```
3 select id from e_ballot;
```

```
ID
```

```
-----
```

```
555
```

```
999
```

```
SQL> select id_c from candidate
```

```
2 intersect
```

```
3 select id_c from results;
```

```
ID_C
```

```
-----
```

```
111
```

```
212
```

```
555
```

```
666
```

```
SQL> select constituency_number from area
```

```
2 union
```

```
3 select constituency_number from e_ballot;
```

```
CONSTITUENCY_NUMBER
```

```
-----
```

```
112233
```

```
221133
```

```
224050
```

```
224052
```

```
998869
```

```
SQL> select constituency_number from area
```

```
2 minus
```

```
3 select constituency_number from e_ballot;
```

```
CONSTITUENCY_NUMBER
```

```
-----
```

```
221133
```

```
224052
```

```
SQL> select constituency_number from area where area_name='ballia'
```

```
2 intersect
```

```
3 select constituency_number from voter where address='Ballia';
```

```
CONSTITUENCY_NUMBER
```

```
-----
```

```
224050
```

## Join more than two tables (3 Queries)

```
SQL> select candidate.id_c,candidate.name_c from candidate,members,party
```

```
2 where candidate.id_c=members.id_c and members.party_name=party.party_name;
```

```
ID_C NAME_C
```

```
-----
```

```
555 Pappu
```

```
212 Manmphan
```

```
111 Vishwas
```

```
111 Vishwas
```

```
SQL> select area.area_name,e_ballot.party_name from area,results,e_ballot
```

2 where area.constituency\_number=results.constituency\_number and  
area.constituency\_number=e\_ballot.constituency\_number;

AREA\_NAME

-----

PARTY\_NAME

-----

gandhinagar

KKP

ballia

RJD

yelagiri

BANARAS MUKTI MORCHA

AREA\_NAME

-----

PARTY\_NAME

-----

yelagiri

SHIVSENA

SQL> select voter.id,voter.name,admin.username from voter,e\_ballot,admin

2 where voter.id=e\_ballot.id and e\_ballot.username=admin.username;

ID NAME

USERNAME

-----

123 Adarsh

mohitverma6161

123 Adarsh

prateek

222 Sankalp	purushottam123
333 Deepak	mohitverma6161

## Q)FIND THE NUMBER OF VOTES FOR A CANDIDATE AND HIS RESPECTIVE PARTY DETAILS;

SQL> select r.number\_of\_votes,c.id\_c,m.party\_name from results r,candidate c,members m  
2 where r.id\_c=c.id\_c and c.id\_c=m.id\_c;

NUMBER_OF_VOTES	ID_C	PARTY_NAME
0	555	RJD
3	212	KKP
4	111	BANARAS MUKTI MORCHA
4	111	BANARAS MUKTI MORCHA

## Sub Queries (3 Queries)

SQL> select s\_no,constituency\_number from e\_ballot where constituency\_number in(select constituency\_number from area where area\_name='ballia');

S_NO	CONSTITUENCY_NUMBER
12346	224050

TO FIND WHICH VOTER IS BEING MANAGED BY MOG+HITVERMA6161

SQL> select id,name,dob,address from voter where id in  
2 (select id from manages where username='mohitverma6161');

ID	NAME	DOB
123	Adarsh	15-AUG-98

Bhubhaneshwar

111 Siddharth

26-JAN-97

Delhi

FIND THE AREA\_NAME WHERE VOTE HAS BEEN GIVEN ON 14-OCT-2018

SQL> select area\_name from area where constituency\_number in(select constituency\_number from e\_ballot where date\_of\_vote='14-OCT-2018');

AREA\_NAME

-----

Gandhinagar

## Create 2 views (if possible)

SQL> create view candidate\_view\_profile as

2 (select id\_c,name\_c,constituency\_number from candidate) with read only;

View created.

SQL> select \* from candidate\_view\_profile;

ID_C NAME_C	CONSTITUENCY_NUMBER
111 Vishwas	224052
666 Mallya	998869
555 Pappu	112233
212 Manmphan	224050

SQL> create view results\_view as

2 (select a.number\_of\_votes,a.id\_c,c.name\_c from results a,candidate c



```
3 where a.id_c=c.id_c) with read only;
```

View created.

```
SQL> select * from results_view;
```

NUMBER_OF_VOTES	ID_C	NAME_C
4	111	Vishwas
3	666	Mallya
0	555	Pappu
3	212	Manmphan

## Module 5: Implementation (Procedural Queries)

### Normal

```
SQL> declare
```

```
2 i candidate.id_c%type;
3 u candidate.username%type;
4 begin
5 i:=&i;
6 select username into u from candidate where id_c=i;
7 if u='mohitverma6161' then
8 update candidate set password_c='pass3' where id_c=i;
9 end if;
10 end;
11 /
```

Enter value for i: 212

```
old 5: i:=&i;
```

```
new 5: i:=212;
```

PL/SQL procedure successfully completed.

## One PL/SQL block using Cursor

SQL> declare

```
2 id number(15);
3 name members.name_m%type;
4 dob members.Dob_m%type;
5 cursor c1 is select name_m,Dob_m,party_name from members where id_c=id;
6 party members.party_name%type;
7 begin
8 id:=&id;
9 open c1;
10 loop
11 fetch c1 into name,dob,party;
12 exit when c1%notfound;
13 dbms_output.put_line(name||' '||dob||' '||party);
14 end loop;
15 close c1;
16 end;
17 /
```

Enter value for id: 555

old 8: id:=&id;

new 8: id:= 555;

Pappu 14-NOV-85 RJD

PL/SQL procedure successfully completed.

## One PL/SQL block using Procedure

SQL> set serveroutput on;

SQL> create or replace procedure area2(id in number,area out varchar) is

```

2 begin
3 select area_name into area from area where constituency_number in(select
constituency_number from candidate where id_c=id);
4 dbms_output.put_line(area);
5 end;
6 /

```

SQL> declare

```

2 b varchar2(15);
3 begin
4 area2(212,b);
5 end;
6 /

```

Ballia

## One PL/SQL block using Function

SQL> set serveroutput on;

SQL> create or replace function cons(cons number) return varchar is

```

2 a area.area_name%type;
3 begin
4 select area_name into a from area where constituency_number=cons;
5 return a;
6 end;
7 /

```

Function created.

SQL> begin

```

2 dbms_output.put_line(cons(221133));
3 end;
4 /

```

varanasi

PL/SQL procedure successfully completed.

## One PL/SQL block using Trigger:

```
SQL> create trigger trig6
2 after update on area
3 for each row
4 begin
5 update voter set constituency_number=:new.constituency_number where
constituency_number=:old.constituency_number;
6 end trig6;
7 /
```

Trigger created.

```
SQL> update area set constituency_number=221133 where area_name='varanasi';
```

1 row updated.

```
SQL> select * from voter;
```

ID PASS	NAME	DOB
123 dbms1	Adarsh	15-AUG-98
Bhubhaneshwar		112233
111 dbms2	Siddharth	26-JAN-97

Delhi		998869
222 dbms3	Sankalp	02-OCT-96
Ghaziabad		998869

ID PASS	NAME	DOB
-----		
ADDRESS	CONSTITUENCY_NUMBER	
-----		
333 dbms4	Deepak	14-NOV-96
Bengaluru		224050

444 dbms5	Yuvi	28-OCT-95
Ballia		224050

555 dbms6	Dhoni	28-DEC-95
Ranchi		224050

ID PASS	NAME	DOB
-----		
ADDRESS	CONSTITUENCY_NUMBER	
-----		
666 dbms7	Shikhar	11-MAR-93
Lucknow		224050

777 dbms8	Rohit	10-JAN-93
Ludhiana		998869

888 dbms9	Suresh	28-DEC-99
-----------	--------	-----------

Hisar

112233

ID PASS	NAME	DOB
-----		
ADDRESS	CONSTITUENCY_NUMBER	
-----		
999 dbms10	Ajinkya	28-NOV-99
Chennai		224052
998 dbms11	Pandya	21-JUN-99
Chennai		224052
988 dbms12	Krunal	21-JUN-99
Pondicherry		998869

12 rows selected.