

DATABASE MANAGEMENT SYSTEM

ASSIGNMENT-1

AUTOMATED POLLING

CONTENT:

- Abstract
- ER Diagram
- Logical database design – DDL commands
- Enforcing primary and foreign keys.
- DML operation and outputs.

ABSTRACT:

An automated polling system helps in registering and certifying voters and collecting their votes. This is a computer based vote casting system that has access to the database which checks if the voter is eligible to vote or not. The database includes 5 tables for storing the information related to the system. The five table are:

- Voters details
- Nominees details
- Admin
- Parties that are taking part.
- City

The entity 'voter' is related to the entity 'city' through the relationship 'from' and to entity 'nominee' through 'castes_vote'. The entity 'admin' is associated to the entity 'voter' through the relationship ',anage' whereas the entity 'nominee' is related to entity 'party' through the relation 'belongs_to'. The common attributes include ID and name where Id acts as the primary key for that table and as a foreign key to some other table. Domain types used are varchar2, number and date.

LIST OF REQUIREMENTS:

List of parties taking part in the polling.
Details of the nominees and voters.
Details of parties.
Cities and constituencies involved.

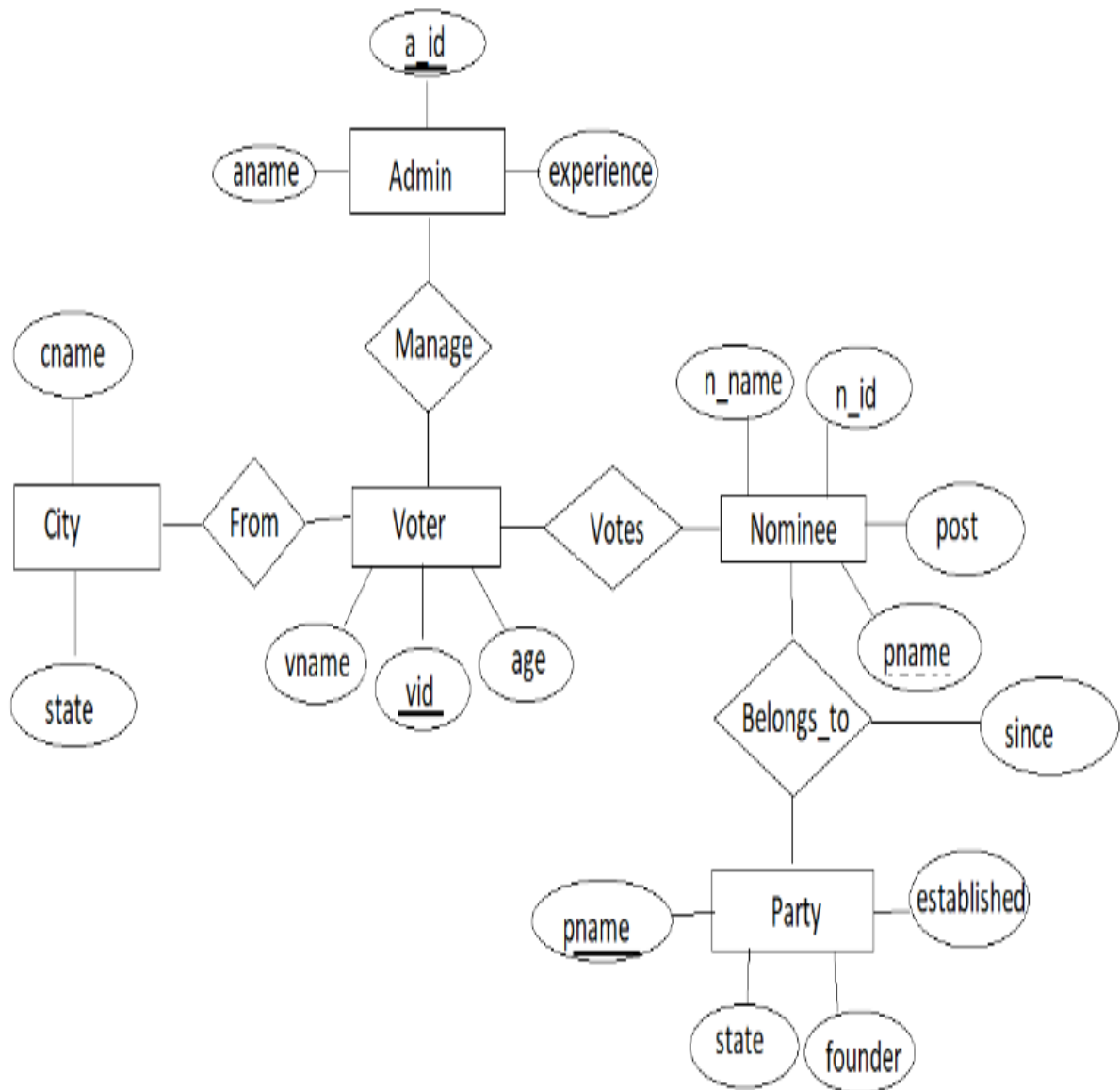
The database requires 5 table for implementation of the polling system.

The five table and their attributes are:

- Voter
 - ❖ Voter id : vid- number(5)
 - ❖ Voter name : vname- varchar2(20)
 - ❖ Age: number(5)
- Nominee
 - ❖ Nominee name : n_name- varchar2(20)
 - ❖ Nominee id : n_id- number(5)
 - ❖ Post : varchar2(20)
 - ❖ Party name : p_name- varchar2(20)
- Admin
 - ❖ Admin id : a_id- number(5)
 - ❖ Admin name : a_name- varchar2(20)
 - ❖ Experience : number(5)
- Party
 - ❖ Party name : p_name- varchar2(20)
 - ❖ State: varchar2(20)
 - ❖ Founder : varchar2(20)
 - ❖ Established : number(5)
- City
 - ❖ City name : cname- varchar2(20)
 - ❖ City state : cstate- varchar2(20)
- Belongs_to
 - ❖ Since :number(5)

The descriptive attribute 'since' in the table 'belongs_to' tell about since when the nominee belongs to the party

ER Diagram:



CONSTRAINTS APPLIED:

The database has two constraints that are applied- The primary key constraint and foreign key constraint. The primary keys are:

- a_id in the admin table.
- vid in the voter table.
- pname in the party table.

The attribute pname acts as foreign in the nominee table.

DDL Commands:

For creating party table:

Query: create table party(pname varchar2(20) primary key,
state varchar2(20),
founder varchar(20),
established number(5));

For creating nominee table:

Query: create table party(n_name varchar2(20),
n_id number(5),
post varchar(20),
pname varchar2(20));

For creating voter table:

Query: create table voter(vid number(5) primary key,
vname varchar2(20),
age number(5));

For creating admin table:

Query: create table admin(aid number(5) primary key,
aname varchar2(20),
experience number(5));

For creating city table:

Query: create table city(cname varchar2(20),
cstate varchar2(20));

For creating belongs_to table:

Query: create table belongs_to(since number(5));

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```
SQL> create table party(pname varchar2(20) primary key,  
2 state varchar2(20),  
3 founder varchar2(20),  
4 established number(5));
```

Table created.

```
SQL> create table nominee(n_name varchar2(20),  
2 n_id number(5),  
3 post varchar2(20),  
4 pname varchar2(20));
```

Table created.

```
SQL> alter table nominee add foreign key(pname) references party;
```

Table altered.

```
SQL> create table voter(vid number(5),  
2 vname varchar2(20),  
3 age number(5));
```

Table created.

```
SQL> alter table voter add primary key(vid);
```

Table altered.

```
SQL> create table admin(a_id number(5) primary key,  
2 aname varchar2(20),  
3 experience number(5));
```

Table created.

```
SQL> alter table city add(cstate varchar2(20));
```

Table altered.

```
SQL> desc city;
```

Name	Null?	Type
CNAME		VARCHAR2(20)
CSTATE		VARCHAR2(20)

```
SQL> desc party;
```

Name	Null?	Type
PNAME	NOT NULL	VARCHAR2(20)
STATE		VARCHAR2(20)
FOUNDER		VARCHAR2(20)
ESTABLISHED		NUMBER(5)

```
SQL> desc nominee;
```

Name	Null?	Type
N_NAME		VARCHAR2(20)
N_ID		NUMBER(5)
POST		VARCHAR2(20)
PNAME		VARCHAR2(20)

```
SQL> desc admin;
```

Name	Null?	Type
A_ID	NOT NULL	NUMBER(5)
ANAME		VARCHAR2(20)
EXPERIENCE		NUMBER(5)

```
SQL> desc desc voter;
```

Usage: DESCRIBE [schema.]object[@db_link]

```
SQL> desc voter;
```

Name	Null?	Type
VID	NOT NULL	NUMBER(5)
VNAME		VARCHAR2(20)
AGE		NUMBER(5)

DML Commands:

```
SQL> insert into nominee values('&n_name',&n_id,'&post','&pname');
Enter value for n_name: Amit shah
Enter value for n_id: 1001
Enter value for post: president
Enter value for pname: BJP
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Amit shah',1001,'president','BJP')

1 row created.

SQL> /
Enter value for n_name: Uddhav Thackeray
Enter value for n_id: 1002
Enter value for post: Chair person
Enter value for pname: Shiv Sena
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Uddhav Thackeray',1002,'Chair person','Shiv Sena')

1 row created.
```

```
SQL> /
Enter value for n_name: Sonia Gandhi
Enter value for n_id: President
Enter value for post: 1001
Enter value for pname: kd
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Sonia Gandhi',President,'1001','kd')
insert into nominee values('Sonia Gandhi',President,'1001','kd')
*
ERROR at line 1:
ORA-00984: column not allowed here

SQL> /
Enter value for n_name: Sonia Gandhi
Enter value for n_id: 1003
Enter value for post: President
Enter value for pname: Congress
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Sonia Gandhi',1003,'President','Congress')

1 row created.

SQL> /
Enter value for n_name: Chandra Babu Naidu
Enter value for n_id: 1004
Enter value for post: president
Enter value for pname: TDP
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Chandra Babu Naidu',1004,'president','TDP')

1 row created.
```

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```
SQL> insert into nominee values('&n_name',&n_id,'&post','&pname');
Enter value for n_name: Supriya Sule
Enter value for n_id: 1005
Enter value for post: LokSabha leader
Enter value for pname: Rashtrawadi congress
old 1: insert into nominee values('&n_name',&n_id,'&post','&pname')
new 1: insert into nominee values('Supriya Sule',1005,'LokSabha leader','Rashtrawadi congress')

1 row created.
```

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SQL> select * from party;

PNAME	STATE	FOUNDER	ESTABLISHED
BJP	all	AtalBihariVajpayee	1980
Shiv Sena	Maharashtra	Bal Thackeray	1966
Congress	all	Dadabhai Naoroji	1885
TDP	Andhra Pradesh	NT Rama Rao	1982
Rashtrawadi congress	all	Sharadh Pawar	1999

SQL> select * from nominee;

N_NAME	N_ID	POST	PNAME
Amit shah	1001	president	BJP
Uddhav Thackeray	1002	Chair person	Shiv Sena
Sonia Gandhi	1003	President	Congress
Chandra Babu Naidu	1004	president	TDP
Supriya Sule	1005	Lok Sabha leader	Rashtrawadi congress

SQL> select * from voter;

VID	VNAME	AGE
2001	Ayesha	21
2002	Rivaah	27
2003	Mayank	19
2004	Vivaan	18
2005	Manik	19

SQL> select * from admin;

A_ID	ANAME	EXPERIENCE
3001	Parth	6
3002	Abhishek	2
3003	Moksh	5
3004	Ansh	5
3005	Aniketh	10

SQL> select * from city;

CNAME	CSTATE
Pune	Maharashtra
Hyderabad	Telangana
Kinwat	Maharashtra
chandigarh	Punjab
Bengaluru	Karnataka

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```
SQL> desc belongs_to;
Name                                         Null?    Type
-----
SINCE                                         NUMBER(5)

SQL> insert into belongs_to values(&since);
Enter value for since: 1990
old 1: insert into belongs_to values(&since)
new 1: insert into belongs_to values(1990)

1 row created.

SQL> /
Enter value for since: 1966
old 1: insert into belongs_to values(&since)
new 1: insert into belongs_to values(1966)

1 row created.

SQL> /
Enter value for since: 1885
old 1: insert into belongs_to values(&since)
new 1: insert into belongs_to values(1885)

1 row created.

SQL> /
Enter value for since: 1982
old 1: insert into belongs_to values(&since)
new 1: insert into belongs_to values(1982)

1 row created.

SQL> /
Enter value for since: 1999
old 1: insert into belongs_to values(&since)
new 1: insert into belongs_to values(1999)

1 row created.
```