UE20CS301 DATABASE MANAGEMENT SYSTEM (DBMS) MINI PROJECT REPORT

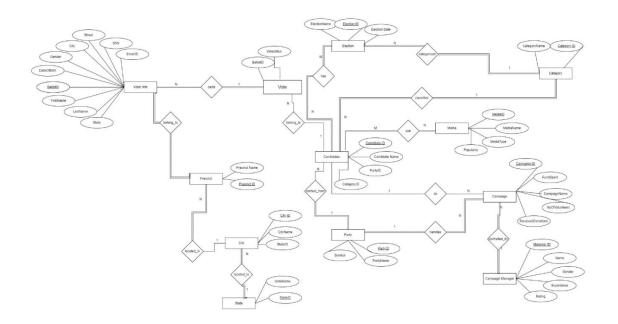
ELECTION MANAGEMENT SYSTEM

SUBMITTED BY : REHAN AHMED(PES1UG22CS833) SABUJ DAS(PES1UG22CS834)

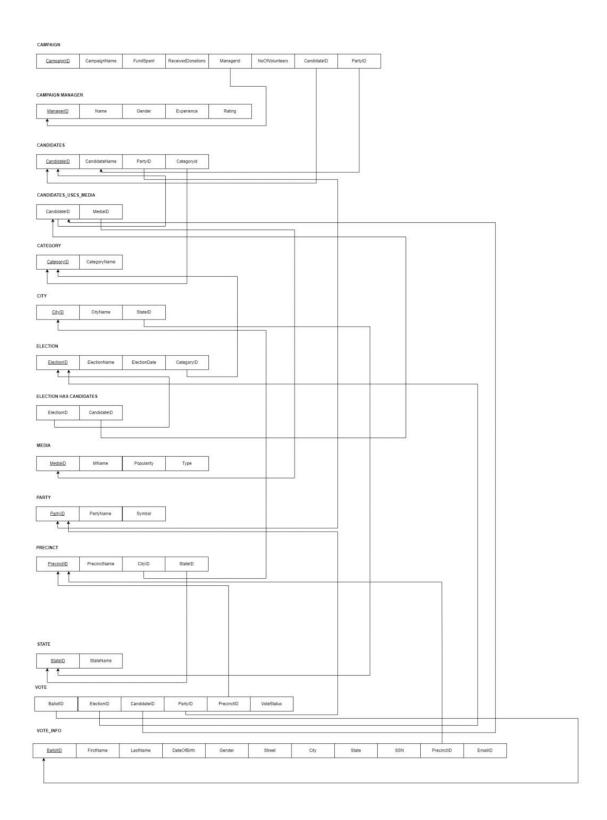
V SEMESTER

SECTION: H

ER DIAGRAM



RELATIONAL SCHEMA



CREATING THE TABLES

```
CREATE TABLE campaign (
  CampaignID varchar(60) NOT NULL,
  CampaignName varchar(60) NOT NULL,
  FundSpent varchar(45) NOT NULL,
  ReceivedDonations varchar(45) NOT NULL,
  ManagerID varchar(45) NOT NULL,
  CandidateID int(11) NOT NULL,
  PartyID varchar(60) NOT NULL,
  PRIMARY KEY (CampaignID),
  CONSTRAINT campaign FK 1 FOREIGN KEY (CandidateID) REFERENCES candidates
(CandidateID) ON DELETE NO ACTION ON UPDATE CASCADE,
  CONSTRAINT campaign_FK_2 FOREIGN KEY (PartyID) REFERENCES candidates
(PartyID) ON DELETE NO ACTION ON UPDATE CASCADE
);
CREATE TABLE campaignmanager(
  ManagerID varchar(45) NOT NULL,
  Name varchar(45) NOT NULL,
  Gender varchar(45) NOT NULL,
  Experience varchar(60) NOT NULL,
  Rating int(11) DEFAULT NULL,
 PRIMARY KEY (ManagerID)
);
CREATE TABLE candidates(
  CandidateID int(11) NOT NULL,
 CandidateName varchar(45) NOT NULL,
  PartyID varchar(60) NOT NULL,
 CategoryID varchar(45) DEFAULT NULL,
  PRIMARY KEY (CandidateID),
 CONSTRAINT candidates_FK_1 FOREIGN KEY (PartyID) REFERENCES party (PartyID)
ON DELETE CASCADE ON UPDATE CASCADE,
  CONSTRAINT candidates FK 2 FOREIGN KEY (Categoryid) REFERENCES category
(CategoryID)
);
CREATE TABLE candidates uses media(
 CandidateID int(11) NOT NULL,
 MediaID varchar(45) NOT NULL,
 CONSTRAINT candidates_uses_media_FK_1 FOREIGN KEY (CandidateID) REFERENCES
candidates (CandidateID) ON DELETE CASCADE ON UPDATE CASCADE,
 CONSTRAINT candidates_uses_media_FK_2 FOREIGN KEY (MediaID) REFERENCES media
(MediaID) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE TABLE category(
```

```
CategoryID varchar(60) NOT NULL,
  CategoryName varchar(45) NOT NULL,
 PRIMARY KEY (CategoryID)
);
CREATE TABLE city (
 CityID int(11) NOT NULL,
 CityName varchar(45) NOT NULL,
 StateID int(11) NOT NULL,
 PRIMARY KEY (CityID),
 CONSTRAINT city_FK FOREIGN KEY (StateID) REFERENCES state (StateID) ON
DELETE CASCADE ON UPDATE CASCADE
);
CREATE TABLE election (
  ElectionID varchar(45) NOT NULL,
  ElectionName varchar(45) NOT NULL,
  ElectionDate varchar(45) NOT NULL,
  CategoryID varchar(60) NOT NULL,
 PRIMARY KEY (ElectionID),
 CONSTRAINT election_FK_1 FOREIGN KEY (CategoryID) REFERENCES category
(CategoryID) ON DELETE NO ACTION ON UPDATE NO ACTION
);
CREATE TABLE election has candidates (
  ElectionID varchar(45) NOT NULL,
  CandidateID int(11) NOT NULL,
  CONSTRAINT election_has_candidates_FK_1 FOREIGN KEY (ElectionID) REFERENCES
election (ElectionID) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT election_has_candidates_FK_2 FOREIGN KEY (CandidateID) REFERENCES
candidates (CandidateID) ON DELETE NO ACTION ON UPDATE NO ACTION
);
CREATE TABLE media (
 MediaID varchar(45) NOT NULL,
 Name varchar(45) NOT NULL,
 Type varchar(45) NOT NULL,
  Popularity varchar(45) NOT NULL,
 PRIMARY KEY (MediaID)
  );
CREATE TABLE party (
  PartyID varchar(60) NOT NULL,
 PartyName varchar(45) NOT NULL,
 Symbol varchar(45) NOT NULL,
 PRIMARY KEY (PartyID)
);
```

```
CREATE TABLE precinct (
  PrecinctID int(11) NOT NULL,
  PrecinctName varchar(45) NOT NULL,
  CityID int(11) NOT NULL,
 StateID int(11) NOT NULL,
 PRIMARY KEY (PrecinctID),
 CONSTRAINT precinct_FK_1 FOREIGN KEY (CityID) REFERENCES city (CityID) ON
DELETE CASCADE ON UPDATE CASCADE,
  CONSTRAINT precinct FK 2 FOREIGN KEY (StateID) REFERENCES state (StateID) ON
DELETE CASCADE ON UPDATE CASCADE
);
CREATE TABLE roles (
  roleID varchar(70) NOT NULL,
  rolename varchar(70) DEFAULT NULL,
 privileges varchar(70) DEFAULT NULL,
 PRIMARY KEY (roleID)
);
CREATE TABLE state (
  StateID int(11) NOT NULL,
 StateName varchar(45) NOT NULL,
 PRIMARY KEY (StateID)
);
CREATE TABLE vote (
  BallotID varchar(60) NOT NULL,
  ElectionID varchar(45) NOT NULL,
  CandidateID int(11) DEFAULT NULL,
  PartyID varchar(60) DEFAULT NULL,
  PrecinctID int(11) NOT NULL,
 VoteStatus varchar(45) NOT NULL,
 CONSTRAINT vote_FK_1 FOREIGN KEY (ElectionID) REFERENCES election
(ElectionID) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT vote_FK_2 FOREIGN KEY (PartyID) REFERENCES party (PartyID) ON
DELETE NO ACTION ON UPDATE NO ACTION,
 CONSTRAINT vote_FK_3 FOREIGN KEY (BallotID) REFERENCES voter_info (BallotID)
ON DELETE NO ACTION ON UPDATE NO ACTION,
 CONSTRAINT vote_FK_4 FOREIGN KEY (PrecinctID) REFERENCES precinct
(PrecinctID) ON DELETE NO ACTION ON UPDATE NO ACTION
);
```

```
CREATE TABLE voter_info (
  BallotID varchar(60) NOT NULL,
  FirstName varchar(45) NOT NULL,
  LastName varchar(45) NOT NULL,
 DateOfBirth date NOT NULL,
  Gender varchar(45) DEFAULT NULL,
 Street varchar(45) NOT NULL,
 City varchar(45) NOT NULL,
 State varchar(45) NOT NULL,
  SSN varchar(45) NOT NULL,
  PrecinctID int(11) DEFAULT NULL,
  EmailID varchar(40) DEFAULT NULL,
 PRIMARY KEY (BallotID),
 UNIQUE KEY SSN (SSN),
 CONSTRAINT voter_info_FK_1 FOREIGN KEY (PrecinctID) REFERENCES precinct
(PrecinctID) ON DELETE CASCADE ON UPDATE CASCADE
);
```

INSERTING THE VALUES

```
INSERT INTO campaign VALUES ('a', 'Telling It Like It Is
!','0.50','0.34','m3',620,2005,'p2'),
('b','Your Future To Believe In','1.45','1.75','m2',3400,1002,'p1'),
('c', 'From Hope to Higher Ground', '0.95', '0.92', 'm5', 300, 2003, 'p2'),
('d', 'Forward Together', '3.30', '3.50', 'm1', 6000, 1001, 'p1'),
('e', 'People Fighting Back', '1.64', '1.62', 'm1', 850, 3005, 'p3'),
('f', 'Stronger Together', '1.95', '2.10', 'm4', 1100, 1005, 'p1'),
('g', 'Reform, Prosperity, Peace', '1.72', '1.74', 'm5', 565, 3003, 'p3'),
('h', 'Heal.Inspire.Revive', '1.25', '1.4', 'm3', 874, 2002, 'p2'),
('i', 'Hillary For America', '3.23', '3.32', 'm5', 1320, 1001, 'p1'),
('j', 'Fighting For Us', '1.25', '0.96', 'm5', 770, 1003, 'p1'),
('k','A Time For Truth','1.85','1.98','m4',1250,2004,'p2'),
('l','Live Free','1.45','1.30','m2',600,1004,'p1'),
('m', 'Right To Rise', '1.32', '1.39', 'm4', 780, 3004, 'p3'),
('n','It\'s never too late to do the right
thing','1.72','1.81','m2',680,3002,'p3'),
('o','What Do We Have To Lose','3.17','3.15','m3',1280,2001,'p2'),
('p','Citizenship Matters','2.27','2.35','m3',1280,3001,'p3'),
('q','Ready For Change, Ready To Lead','2.84','2.83','m2',1200,1001,'p1'),
('r','Make America Great again','3.25','3.33','m4',5600,2001,'p2');
```

```
INSERT INTO candidates VALUES (1001, 'Joe Biden', 'p1', 'c1'),
  (1002, 'Brooks Salazar', 'p1', 'c2'),
  (1003, 'Ryan Calkins', 'p1', 'c3'),
  (1004, 'John Creighton', 'p1', 'c4'),
  (1005, 'Lisa Espinosa', 'p1', 'c6'),
  (2001, 'Donald J.Trump', 'p2', 'c1'),
  (2002, 'Mike Pence', 'p2', 'c2'),
  (2003, 'Rex Tillerson', 'p2', 'c3'),
  (2004, 'Steve Mnuchin', 'p2', 'c4'),
  (2005, 'Wilbur Ross', 'p2', 'c5'),
  (3001, 'Ahmed Abdi', 'p3', 'c1'),
  (3002, 'Stephine Bowman', 'p3', 'c2'),
  (3003, 'Preeti Shridhar', 'p3', 'c3'),
  (3004, 'Sonny Perdue', 'p3', 'c5'),
  (3005, 'Ben Carson', 'p3', 'c6');
```

```
INSERT INTO candidates_uses_media VALUES (1005, 'media4'),
(1001, 'media2'),
(1005, 'media7'),
(2003, 'media1'),
(2003, 'media2'),
(2003, 'media6'),
(1001, 'media5'),
(1001, 'media7'),
(1003, 'media5'),
(1001, 'media3'),
(1001, 'media4'),
(1002, 'media1'),
(1002, 'media8'),
(1002, 'media6'),
(1003, 'media2'),
(1005, 'media3'),
(1003, 'media5'),
(2002, 'media5'),
(1004, 'media1'),
(1004, 'media8'),
(2001, 'media2'),
(2001, 'media7');
```

```
INSERT INTO category VALUES ('c1','Presidential'),
('c2','US Senator'),
('c3','Judge'),
('c4','State Senator'),
('c5','County Executive'),
('c6','City Council');
```

```
INSERT INTO city VALUES (21,'NewYork City',2),
(22,'Buffalo',2),
(23,'Rochester',2),
(31,'Newark',3),
(32,'Trenton',3),
(33,'Jersey City',3),
(41,'Los Angeles',4),
(42,'King County',4),
(43,'Orange County',4);
```

```
INSERT INTO election VALUES ('e01', 'General Presidential 2012', '2012-01-
12','c1'),
('e02', 'General US Senator 2012', '2012-04-27', 'c2'),
('e03', 'General Judge 2012', '2012-09-06', 'c3'),
('e04', 'Primary State Senator 2013', '2013-01-04', 'c4'),
('e05','Primary County Executive 2013','2013-07-04','c5'),
('e06', 'Primary City Council 2013', '2013-09-25', 'c6'),
('e07', 'General US Senator 2014', '2014-03-26', 'c2'),
('e08', 'General Judge 2014', '2014-09-11', 'c3'),
('e09', 'Primary State Senator 2015', '2015-02-23', 'c4'),
('e10','Primary County Executive 2015','2015-07-09','c5'),
('e11','Primary City Council 2015','2015-09-23','c6'),
('e12', 'General Presidential 2016', '2016-01-26', 'c1'),
('e13', 'General US Senator 2016', '2016-04-30', 'c2'),
('e14','General Judge 2016','2016-10-01','c3'),
('e15', 'Primary State Senator 2017', '2017-01-13', 'c4'),
('e16', 'Primary County Executive 2017', '2017-07-04', 'c5'),
('e17','Primary City Council 2017','2017-10-24','c6'),
('e18', 'General US Senator 2018', '2018-03-31', 'c2'),
('e19', 'General Judge 2018', '2018-09-02', 'c3'),
('e20', 'Primary State Senator 2019', '2019-01-31', 'c4'),
('e21', 'Primary County Executive 2019', '2019-07-06', 'c5'),
('e22', 'Primary City Council 2019', '2019-09-13', 'c6'),
('e23', 'General Presidential 2020', '2020-01-12', 'c1'),
('e24','General US Senator 2020','2020-04-19','c2'),
('e25','General Judge 2020','2020-09-11','c3');
```

```
INSERT INTO election_has_candidates VALUES ('e01',1001),
('e01',2001),
('e01',3001),
('e02',1002),
('e02',2002),
('e02',3002),
('e03',1003),
('e03',2003),
('e03',3003),
('e04',1004),
('e04',2004),
('e05',2005),
('e05',3004),
('e06',1005),
('e06',3005),
('e07',1002),
('e07',2002),
('e07',3002),
('e08',1003),
('e08',2003);
```

```
INSERT INTO media VALUES ('media1','BBC','TV','39.21%'),
    ('media2','The New York Times','Newspaper','52.65%'),
    ('media3','WABC','Radio','31%'),
    ('media4','CNN','TV','46%'),
    ('media5','FOX25','TV','56.2%'),
    ('media6','WBZ','Radio','29.3%'),
    ('media7','USA Today','Newspaper','56%'),
    ('media8','The WallStreet Journal','Newspaper','44.86%');
```

```
INSERT INTO party VALUES ('p1','Democrats','Deer'),
  ('p2','Republican','Elephant'),
  ('p3','Independents','Horse');
```

```
INSERT INTO precinct VALUES (211, 'Bronx', 21, 2),
(212, 'Brooklyn', 21, 2),
(213, 'Manhattan', 21, 2),
(221, 'Alden', 22, 2),
(222, 'Buffalo', 22, 2),
(223, 'Williamsville', 22,2),
(231, 'Brighton', 23, 2),
(232, 'Gates', 23, 2),
(233, 'Hamlin', 23, 2),
(311, 'Bloomfield', 31, 3),
(312, 'Caldwell', 31, 3),
(313, 'Irvington', 31, 3),
(321, 'Hamilton', 32, 3),
(322, 'Lawrence', 32, 3),
(323, 'Pennington', 32, 3),
(331, 'Atlantic', 33, 3),
(332, 'Burlington', 33, 3),
(333, 'Cumberland', 33, 3);
```

```
INSERT INTO roles VALUES ('r1','Poll Worker','SELECT_EXECUTE'),
  ('r2','Election Admin','ALL');
```

```
INSERT INTO state VALUES (2,'New York'),
(3,'New Jersey'),
(4,'California');
```

```
INSERT INTO vote VALUES ('211-00', 'e01', 1001, 'p1', 211, 'Yes'),
('211-04','e02',2002,'p2',211,'Yes'),
('211-05','e03',1003,'p1',211,'Yes'),
('211-06','e04',1004,'p1',211,'Yes'),
('211-09','e05',3004,'p3',211,'Yes'),
('211-21','e06',1005,'p1',211,'Yes'),
('211-24','e07',1002,'p1',211,'Yes'),
('211-34','e08',2003,'p2',211,'Yes'),
('211-52','e09',1004,'p1',211,'Yes'),
('211-53', 'e10', 2005, 'p2', 211, 'Yes'),
('211-54', 'e11', NULL, NULL, 211, 'No'),
('211-61','e12',NULL,NULL,211,'No'),
('211-62', 'e13', 1002, 'p1', 211, 'Yes'),
('211-69','e14',2003,'p2',211,'Yes'),
('211-72','e15',1004,'p1',211,'Yes'),
('221-04','e16',2005,'p2',221,'Yes'),
('221-05','e17',1005,'p1',221,'Yes'),
('221-06', 'e18', 1002, 'p1', 221, 'Yes'),
('221-09','e19',1003,'p1',221,'Yes'),
('221-18','e20',1004,'p1',221,'Yes'),
('221-22','e21',2005,'p2',221,'Yes'),
('221-25', 'e22', 1005, 'p1', 221, 'Yes'),
('221-48', 'e23', NULL, NULL, 221, 'No'),
('221-49','e24',NULL,NULL,221,'No'),
('221-50', 'e25', 1001, 'p1', 221, 'Yes'),
('221-67','e01',2001,'p2',221,'Yes'),
('221-68','e02',2002,'p2',221,'Yes'),
('221-69','e03',1003,'p1',221,'Yes'),
('221-79','e04',1004,'p1',221,'Yes'),
('221-81','e05',2005,'p2',221,'Yes'),
('231-19','e06',1005,'p1',231,'Yes'),
('231-20','e07',1002,'p1',231,'Yes'),
('231-30','e08',2003,'p2',231,'Yes'),
('231-33','e09',1004,'p1',231,'Yes'),
('231-37','e10',NULL,NULL,231,'No'),
('231-40', 'e11', NULL, NULL, 231, 'No'),
('231-42', 'e12', 1001, 'p1', 231, 'Yes'),
('231-49','e13',2002,'p2',231,'Yes'),
('231-50', 'e14', 1003, 'p1', 231, 'Yes'),
('231-51','e15',2004,'p2',231,'Yes'),
('231-52','e16',3004,'p3',231,'Yes'),
('231-53','e17',1005,'p1',231,'Yes'),
('231-70','e18',2002,'p2',231,'Yes'),
('231-72','e19',1003,'p1',231,'Yes'),
('231-74','e20',1004,'p1',231,'Yes'),
('311-04','e21',2005,'p2',311,'Yes'),
('311-08','e22',NULL,NULL,311,'No'),
('311-11','e23',NULL,NULL,311,'No');
```

```
INSERT INTO voter_info VALUES ('211-00', 'Goldarina', 'Goulter', '1986-08-
17', 'Female', '2 Brown Lane', 'NewYork City', 'New York', '790-16-
4053',211,'ggoulter4@redcross.org'),
('211-04', 'Darcy', 'Brokenshaw', '1996-01-13', 'Female', '56 Scofield
Parkway', 'NewYork City', 'New York', '842-89-
7603',211, 'dbrokenshaw0@networksolutions.com'),
('211-05','Dick','Keelin','1983-12-10','Male','24 Sunnyside Road','NewYork
City','New York','318-53-4884',211,'dkeelin1@usatoday.com'),
('211-06', 'Washington', 'Agneau', '1982-12-25', 'Male', '98516 Bay
Center', 'NewYork City', 'New York', '139-04-5028', 211, 'wagneaua@nasa.gov'),
('211-09', 'Winnie', 'Gardiner', '1973-12-20', 'Female', '1 Eagle Crest
Parkway', 'NewYork City', 'New York', '292-91-2197', 211, 'wgardiner9@nba.com'),
('211-21', 'Jephthah', 'Mandrake', '1970-09-09', 'Male', '75 Straubel
Street', 'NewYork City', 'New York', '459-16-
9568',211,'jmandrakeh@networksolutions.com'),
('211-24','Jackie','Trewhitt','1966-02-22','Male','9739 Declaration
Avenue', 'NewYork City', 'New York', '743-31-9658', 211, 'jtrewhittg@mac.com'),
('211-34', 'Maribel', 'Fairchild', '1959-10-21', 'Female', '85 Warner
Pass', 'NewYork City', 'New York', '687-83-4302', 211, 'mfairchild2@comsenz.com'),
('211-52','Talbot','Barkaway','1965-05-01','Male','49                         Vera Alley','NewYork
City', 'New York', '665-94-4207',211, 'tbarkaway6@homestead.com'),
('211-53', 'Brew', 'Eskrick', '1969-01-29', 'Male', '29 Waywood Pass', 'NewYork
City','New York','672-30-7124',211,'beskrickj@ebay.co.uk'),
('211-54','Valle','Alfonsetti','1986-07-16','Male','4 Stang Way','NewYork
City','New York','221-63-7646',211,'valfonsettic@army.mil'),
('211-61', 'Hervey', 'Anetts', '1976-11-02', 'Male', '93026 Kennedy
Crossing','NewYork City','New York','876-19-1613',211,'hanetts8@answers.com'),
('211-62', 'Rudiger', 'Bowler', '1964-02-23', 'Male', '17 Vera Park', 'NewYork
City', 'New York', '113-89-2152', 211, 'rbowler7@goo.gl'),
('211-69', 'Millie', 'Hakonsson', '1994-09-20', 'Female', '27 Corry Point', 'NewYork
City','New York','446-73-6387',211,'mhakonssone@xinhuanet.com'),
('211-72', 'Worthy', 'Ewbanck', '1980-03-04', 'Male', '4 Green Ridge
Circle', 'NewYork City', 'New York', '385-05-3672', 211, 'wewbancki@wiley.com'),
('221-04', 'Georgianna', 'Atley', '1987-07-05', 'Female', '3565 Novick
Pass', 'Buffalo', 'New York', '597-25-4935', 221, 'gatley2@51.la'),
('221-05', 'Denyse', 'Kitcat', '1993-09-13', 'Female', '6197 Ryan
Court', 'Buffalo', 'New York', '125-81-3162', 221, 'dkitcat0@nifty.com'),
('221-06', 'Munmro', 'Bugs', '1983-03-14', 'Male', '40 Maple Wood
Parkway', 'Buffalo', 'New York', '151-18-4905', 221, 'mbugsg@discovery.com'),
('221-09', 'Gianna', 'Extance', '1989-11-04', 'Female', '2528 Summit
Alley', 'Buffalo', 'New York', '432-36-2696', 221, 'gextance9@ftc.gov'),
('221-18','Fidel','Bamfield','1995-04-27','Male','1 Glacier Hill
Crossing', 'Buffalo', 'New York', '737-80-6207', 221, 'fbamfieldj@xinhuanet.com'),
('221-22', 'Hermon', 'Loads', '1962-05-07', 'Male', '070 Delaware
Crossing', 'Buffalo', 'New York', '679-95-9902', 221, 'hloads4@soundcloud.com'),
('221-25', 'Hayyim', 'Yann', '1980-09-10', 'Male', '167 Scofield
Way', 'Buffalo', 'New York', '410-10-9830', 221, 'hyann6@europa.eu'),
```

```
('221-48', 'Granthem', 'Perico', '1981-06-25', 'Male', '1936 Susan
Parkway', 'Buffalo', 'New York', '692-24-9293', 221, 'gpericod@google.fr'),
('221-49', 'Alec', 'Newtown', '1954-07-31', 'Male', '0596 Heffernan
Plaza', 'Buffalo', 'New York', '372-83-5111', 221, 'anewtowna@opensource.org'),
('221-50','Towny','Daubney','1970-02-06','Male','1488 Spenser
Way', 'Buffalo', 'New York', '899-49-3956', 221, 'tdaubneye@sbwire.com'),
('221-67', 'Benedick', 'Yegorkin', '1960-09-27', 'Male', '18790 Rigney
Junction', 'Buffalo', 'New York', '753-92-2571', 221, 'byegorkini@hao123.com'),
('221-68', 'Bjorn', 'Juszkiewicz', '1979-06-13', 'Male', '418 Kensington
Circle', 'Buffalo', 'New York', '681-06-4238',221, 'bjuszkiewiczc@youtu.be'),
('221-69', 'Sig', 'Heintsch', '1985-02-02', 'Male', '3490 Bayside
Pass', 'Buffalo', 'New York', '839-56-7886', 221, 'sheintschh@google.com'),
('221-79', 'Elden', 'McIntosh', '1956-09-11', 'Male', '70955 Raven
Court', 'Buffalo', 'New York', '326-26-6463', 221, 'emcintosh3@tuttocitta.it'),
('221-81','Eb','Symmons','1952-11-14','Male','1 Blue Bill Park
Circle', 'Buffalo', 'New York', '147-22-0239', 221, 'esymmonsf@ed.gov'),
('231-19', 'Tally', 'Garken', '1952-01-06', 'Male', '11201 Dennis
Terrace', 'Rochester', 'New York', '606-38-4378', 231, 'tgarkenh@myspace.com'),
('231-20', 'Martyn', 'Padbery', '1957-05-20', 'Male', '5 Meadow Valley
Center','Rochester','New York','607-74-8596',231,'mpadbery2@typepad.com'),
('231-30', 'Susan', 'Mallall', '1982-01-24', 'Female', '8884 Commercial
Avenue', 'Rochester', 'New York', '649-75-3660', 231, 'smallalla@jimdo.com'),
('231-33', 'Aldous', 'Bassford', '1987-08-31', 'Male', '22157 Center
Drive','Rochester','New York','160-97-8429',231,'abassfordf@ocn.ne.jp'),
('231-37', 'Fara', 'Harrop', '1990-07-07', 'Female', '896 Bunker Hill
Terrace', 'Rochester', 'New York', '347-78-2950', 231, 'fharrop@walmart.com'),
('231-40', 'Maison', 'Harwood', '1992-10-07', 'Male', '0 Mosinee
Center', 'Rochester', 'New York', '503-79-9033', 231, 'mharwoodd@delicious.com'),
('231-42', 'Trude', 'Farny', '1982-12-07', 'Female', '83221 Merchant
Way', 'Rochester', 'New York', '855-77-5859',231, 'tfarnyj@apple.com'),
('231-49','Isadore','Erik','1993-04-16','Male','8578 Meadow Valley
-642-91, 'Rochester', 'New York', '642
7593',231,'ierikb@networkadvertising.org'),
('231-50','Merry','Acock','1948-04-18','Female','9517 Petterle
Avenue', 'Rochester', 'New York', '524-10-5927', 231, 'macock8@va.gov'),
('231-51', 'Truda', 'Lopes', '1959-12-09', 'Female', '1784 Kings
Point', 'Rochester', 'New York', '811-75-1626', 231, 'tlopes5@sourceforge.net'),
('231-52', 'Brandtr', 'Zelner', '1992-04-30', 'Male', '29796 Coleman
Crossing', 'Rochester', 'New York', '893-40-3345', 231, 'bzelneri@mapquest.com'),
('231-53', 'Hanan', 'Undy', '1966-07-17', 'Male', '779 6th Pass', 'Rochester', 'New
York','405-97-5170',231,'hundy1@usgs.gov'),
('231-70','Tracie','Sturzaker','1957-02-21','Male','2732 Stephen
Avenue', 'Rochester', 'New York', '267-43-0660', 231, 'tsturzakerc@gizmodo.com'),
('231-72', 'Eugine', 'Betteriss', '1974-08-04', 'Female', '861 Texas
Road', 'Rochester', 'New York', '717-96-9159', 231, 'ebetteriss3@gov.uk'),
('231-74', 'Mauricio', 'Knagges', '1951-01-18', 'Male', '52 Sauthoff
Center','Rochester','New York','362-66-1512',231,'mknagges7@state.gov');
```

FUNCTIONS

FUNCTION TO DETERMINE THE INCOME GENERATED BY A CAMPAIGN

```
DELIMITER ;;
CREATE FUNCTION Income(
a VARCHAR(100),
b VARCHAR(100))
RETURNS varchar(100) CHARSET utf8
BEGIN
DECLARE ans VARCHAR(100);
SET ans=0;
SET ans=a-b;
RETURN ans;
END ;;
DELIMITER ;
```

JOINS

Query to retrieve only the ballot numbers of the voters who have voted

```
V.BALLOTID, V.ELECTIONID, E.ELECTIONNAME, V.CANDIDATEID, C.CANDIDATENAME, V.PARTYID
, P.PARTYNAME
FROM VOTE V INNER JOIN ELECTION E INNER JOIN CANDIDATES C INNER JOIN PARTY P
ON V.ELECTIONID=E.ELECTIONID AND V.CANDIDATEID=C.CANDIDATEID AND
V.PARTYID=P.PARTYID
WHERE V.VOTESTATUS='YES'
order by electionid;
```

BALLOTID		ELECTIONNAME		CANDIDATENAME		
211-00	+ e01	General Presidential 2012		 Joe Biden	p1	Democrats
331-00	e01	General Presidential 2012	2001	Donald J.Trump	p2	Republican
131-41	e01	General Presidential 2012	3001	Ahmed Abdi	l p3	Independents
211-05	e01	General Presidential 2012	1002	Brooks Salazar	p2	Republican
211-05	e01	General Presidential 2012	1001	Joe Biden	p1	Democrats
11-24	e01	General Presidential 2012	1001	Joe Biden	p1	Democrats
21-67	e01	General Presidential 2012	2001	Donald J.Trump	p2	Republican
11-05	e01	General Presidential 2012	1001	Joe Biden '	p1	Democrats
11-44	e01	General Presidential 2012	i 1001	Joe Biden	p1	Democrats
31-04	e02	General US Senator 2012	1002	Brooks Salazar	l n1	Democrats
11-54	e02	General US Senator 2012	2002	Mike Pence	p2	Republican
211-04	e02	General US Senator 2012	2002	Mike Pence	p2	Republican
311-36	e02	General US Senator 2012	2002	Mike Pence	p2	Republican
221-68	e02	General US Senator 2012	2002	Mike Pence	p2 p2 p2 p2	Republican
131-45	e02	General US Senator 2012	1002	Brooks Salazar	l pl	Democrats
211-05	e03	General Judge 2012	1003	Ryan Calkins	l n1	Democrats
331-05	e03	General Judge 2012	3003	Preeti Shridhar	j p3	Independents
131-52	e03	General Judge 2012	2003	Rex Tillerson	p3 p2 p2	Republican
11-69	e03	General Judge 2012	2003	Rex Tillerson	p2	Republican
221-69	e03	General Judge 2012	1003	Ryan Calkins	p1	Democrats
311-43	e03	General Judge 2012	j 2003	Réx Tillerson	p1 p2	Republican
211-06	e04	Primary State Senator 2013	1004	John Creighton	p1	Democrats
331-08	e04	Primary State Senator 2013	1004	John Creighton	p1	Democrats
311-53	e04	Primary State Senator 2013	1004	John Creighton	p1	Democrats
221-79	e04	Primary State Senator 2013	1004	John Creighton	p1	Democrats
131-53	e04	Primary State Senator 2013	1004	John Creighton	p1	Democrats
11-75	e04	Primary State Senator 2013	2004	Steve Mnuchin	p2	Republican
331-12	e05	Primary County Executive 2013	3004	Sonny Perdue	l p3	Independents
311-56	e05	Primary County Executive 2013	3004	Sonny Perdue	D3	Independents
131-54	e05	Primary County Executive 2013	3004	Sonny Perdue	p3 p3	Independents
221-81	e05	Primary County Executive 2013	2005	Wilbur Ross	p2 p3 p3	Republican
11-09	e05	Primary County Executive 2013	3004	Sonny Perdue	p3	Independents
11-77	e05	Primary County Executive 2013	3004	Sonny Perdue	j p3	Independents
211-21	e06	Primary City Council 2013	1005	Lisa Espinosa	p1	Democrats
21-11	e06	Primary City Council 2013	1005	Lisa Espinosa	p1	Democrats
31-19	e06	Primary City Council 2013	1005	Lisa Espinosa	p1	Democrats
311-73	e06	Primary City Council 2013	3005	Ben Carson	p3	Independents
31-17	e06	Primary City Council 2013	i 3005	Ben Carson	p3	Independents
211-24	e07	General US Senator 2014	1002	Brooks Salazar	p1	Democrats
331-18	e07	General US Senator 2014	1002	Brooks Salazar	p1	Democrats
231-20	e07	General US Senator 2014	1002	Brooks Salazar	p1	Democrats
311-75	e07	General US Senator 2014	2002	Mike Pence	p2	Republican
131-58	e08	General Judge 2014	3003	Preeti Shridhar	p3	Independents

Query to get total no. of votes received by each candidate in each election

```
SELECT v.electionid,
       e.electionname,
       v.candidateid,
       c.candidatename,
       p.PartyName,
       COUNT(v.candidateid) AS Total_Votes
FROM vote v
INNER JOIN Candidates c
   ON v.CandidateID = c.candidateid
INNER JOIN Election e
   ON v.ElectionID = e.electionid
INNER JOIN Party p
   ON v.partyid = p.partyid
WHERE v.candidateid IS NOT NULL
 AND v.VoteStatus = 'yes'
GROUP BY v.electionid,
         v.candidateid,
         p.PartyName
ORDER BY v.electionID ASC,
         COUNT(v.candidateid) DESC;
```

VIEWS

Votes for every candidate

```
CREATE VIEW Winner AS

SELECT v.electionid,e.electionname, v.candidateid, c.candidatename,
p.partyname, count(v.candidateid) AS Total_Votes

FROM vote v INNER JOIN Candidates c INNER JOIN Election e INNER JOIN Party p
ON v.ElectionID=e.electionid AND v.CandidateID=c.candidateid AND
v.partyid=p.partyid

WHERE v.candidateid is NOT NULL AND v.VoteStatus='yes'
GROUP BY v.electionid, v.CandidateID
ORDER BY v.electionID;
```

sql> select	* from winner;	.	.	4	L
electionid	electionname	candidateid	candidatename	partyname	Total_Votes
e01	General Presidential 2012	1001	 Joe Biden	Democrats	5
201	General Presidential 2012	1002	Brooks Salazar	Republican	1
01	General Presidential 2012	2001	Donald J.Trump	Republican	2
01	General Presidential 2012	3001	Ahmed Abdi	Independents	2 1 2
02	General US Senator 2012	1002	Brooks Salazar	Democrats] 2
02	General US Senator 2012	2002	Mike Pence	Republican	4 2 3
03	General Judge 2012	1003	Ryan Calkins	Democrats] 2
03	General Judge 2012	2003	Rex Tillerson	Republican] 3
03	General Judge 2012	3003	Preeti Shridhar	Independents	
04	Primary State Senator 2013	1004	John Creighton	Democrats	5
04	Primary State Senator 2013	2004	Steve Mnuchin	Republican	1
05	Primary County Executive 2013	2005	Wilbur Ross	Republican	ļ <u></u>
05	Primary County Executive 2013	3004	Sonny Perdue	Independents	1 5 3 2 3
06 06	Primary City Council 2013	1005 3005	Lisa Espinosa	Democrats	3
06 07	Primary City Council 2013 General US Senator 2014	1002	Ben Carson Brooks Salazar	Independents Democrats	2
07 07	General US Senator 2014 General US Senator 2014	2002	Mike Pence	Republican	1
07 08	General Judge 2014	1003	Mike Pelice Ryan Calkins	Democrats	1 1
08 i	General Judge 2014	2003	Rex Tillerson	Republican	j 1 j 2
08	General Judge 2014	3003	Preeti Shridhar	Independents	
09	Primary State Senator 2015	1004	John Creighton	Democrats	3
10	Primary County Executive 2015	2005	Wilbur Ross	Republican	Ĭ
īĭ i	Primary City Council 2015	1005	Lisa Espinosa	Democrats	j 4 3
12	General Presidential 2016	1001	Joe Biden	Democrats	j
	General Presidential 2016	2001	Donald J.Trump	Republican	1
13 i	General US Senator 2016	1002	Brooks Salazar	Democrats	3
13 İ	General US Senator 2016	2002	Mike Pence	Republican	j 3 2 1
14	General Judge 2016	1003	Ryan Calkins	Democrats	
14	General Judge 2016	2003	Rex Tillerson	Republican	4 2 3
15	Primary State Senator 2017	1004	John Creighton	Democrats] 2
15	Primary State Senator 2017	2004	Steve Mnuchin	Republican] 3
16	Primary County Executive 2017	2004	Steve Mnuchin	Republican] 1
16	Primary County Executive 2017	2005	Wilbur Ross	Republican	<u> </u>
16	Primary County Executive 2017	3004	Sonny Perdue	Independents	j 3 J 5
17	Primary City Council 2017 General US Senator 2018	1005	Lisa Espinosa	Democrats	5
18	General US Senator 2018	1002	Brooks Salazar	Democrats	4
18	General US Senator 2018	2002	Mike Pence	Republican	1
19	General Judge 2018	1003 2003	Ryan Calkins	Democrats Republican	2
19 20	General Judge 2018 Primary State Senator 2019	1004	Rex Tillerson John Creighton	Democrats	2
20 20	Primary State Senator 2019 Primary State Senator 2019	2004	John Creighton Steve Mnuchin	Republican	1
21	Primary State Senator 2019 Primary County Executive 2019	2004	Steve Mildelliii Wilbur Ross	Republican	4 1 2 2 2 1
21	Primary County Executive 2019	3004	Sonny Perdue	Independents	1
22	Primary City Council 2019	1005	Lisa Espinosa	Democrats	1 3
23	Primary City Council 2019 General Presidential 2020	1001	Joe Biden	Democrats	2
23	General Presidential 2020	2001	Donald J.Trump	Republican	j 2 1
24 i	General US Senator 2020	1002	Brooks Salazar	Democrats	2
24 i	General US Senator 2020	2002	Mike Pence	Republican	2 2 1
25 i	General Judge 2020	1001	Joe Biden	Democrats	1
25 i	General Judge 2020	1001	Joe Biden	Republican	2
25 i	General Judge 2020	1003	Ryan Calkins	Democrats	j 4

Total voters for every election

```
CREATE VIEW totalvoters

AS

select v.electionid, e.electionname, count(v.ballotid) as Total_votes

from vote v INNER JOIN election e

ON v.electionid=e.electionid

where v.votestatus='yes'

group by v.electionid

order by v.electionid;

select * from totalvoters;
```

electionid	electionname	Total_votes
e01 e02 e03 e04 e05 e06 e07 e08 e09 e10 e11 e12 e13 e14 e15 e16	General Presidential 2012 General US Senator 2012 General Judge 2012 Primary State Senator 2013 Primary County Executive 2013 Primary City Council 2013 General US Senator 2014 General Judge 2014 Primary State Senator 2015 Primary County Executive 2015 Primary City Council 2015 Primary City Council 2015 General Presidential 2016 General US Senator 2016 General Judge 2016 Primary State Senator 2017 Primary County Executive 2017	10 6 6 6 5 4 3 4 5 5 5
e17 e18 e19 e20 e21 e22 e23 e24 e25	Primary City Council 2017 General US Senator 2018 General Judge 2018 Primary State Senator 2019 Primary County Executive 2019 Primary City Council 2019 General Presidential 2020 General US Senator 2020 General Judge 2020	5 5 4 3 3 3 4 7

PROCEDURE

Person who won a particular election for a specific candidate

```
DELIMITER $$
CREATE PROCEDURE campaigndetails(IN v varchar(60))
SELECT c.campaignid,
c.campaignname,cm.mediaid,mm.name,c.fundspent,c.receiveddonations,
TRUNCATE(Income(c.FundSpent,c.ReceivedDonations),2)
AS INCOME_Million, c.managerid, m.name as
Manager_Name,c.CandidateID,a.candidatename
FROM Campaign c
INNER JOIN candidates_uses_media cm
INNER JOIN candidates a
INNER JOIN campaignManager m
INNER JOIN media mm
ON c.candidateid=a.candidateid AND m.managerid=c.managerid AND
mm.MediaID=cm.MediaID AND cm.candidateid=a.CandidateID
where c.candidateid=v
order by campaignid;
END $$
DELIMITER ;
```

revenue for each campaign

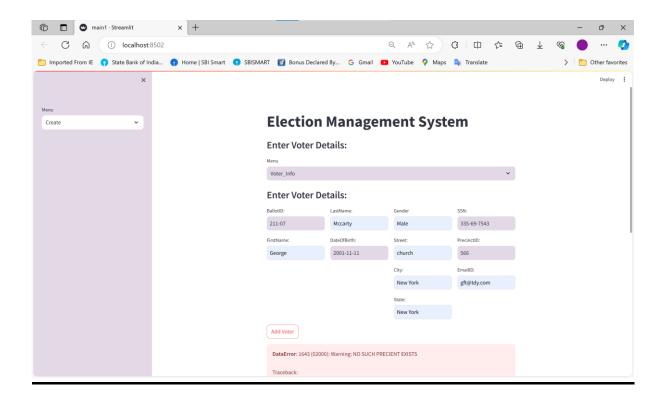
```
DELIMITER $$
CREATE PROCEDURE campaignrevenue(IN b varchar(60))
BEGIN
SELECT c.campaignid, c.campaignname,
a.candidatename,p.partyname,TRUNCATE(Income(c.FundSpent,c.ReceivedDonations),2
) AS INCOME_Million
FROM Campaign c
INNER JOIN candidates a
INNER JOIN Party p
ON c.candidateid=a.candidateid AND p.partyid=a.PartyID
WHERE Campaignid= b
order by income_million desc;
END $$
DELIMITER;
```

TRIGGGER

```
DELIMITER $$

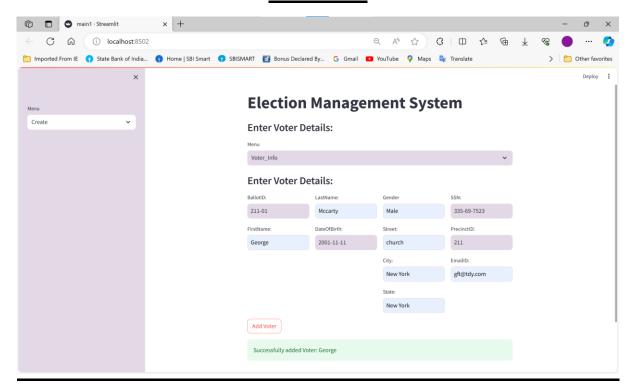
CREATE TRIGGER triggervoter
BEFORE
INSERT ON Voter_Info
FOR EACH ROW BEGIN
    IF (NEW.precinctid NOT IN (select precinctid from precinct)) THEN
        SIGNAL SQLSTATE '02000' SET MESSAGE_TEXT = 'Warning: NO SUCH PRECIENT
EXISTS';
    END IF;
END$$

DELIMITER;
```

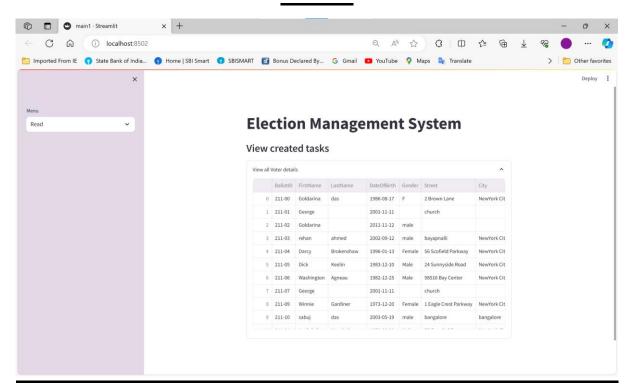


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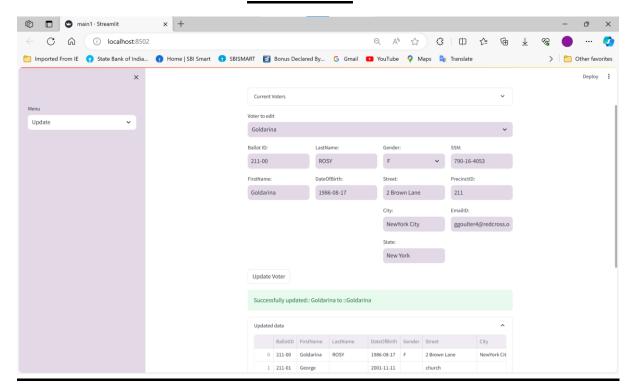
CREATE



READ



UPDATE



DELETE

