CREATE TABLE IF NOT EXISTS CityState(

City VARCHAR(100) NOT NULL,

State VARCHAR(100) NOT NULL,

PRIMARY KEY(City,State)

)ENGINE=InnoDB;

CREATE TABLE IF NOT EXISTS DataType(

DataType ENUM('Mold', 'Air Quality') NOT NULL,

PRIMARY KEY(DataType)

)ENGINE=InnoDB;

CREATE TABLE IF NOT EXISTS User(

Username VARCHAR(100) NOT NULL,

Email VARCHAR(100) NOT NULL,

Password VARCHAR(100) NOT NULL,

UserType ENUM('City Official', 'Administrator', 'City Scientist') NOT NULL,

PRIMARY KEY(Username),

UNIQUE(Email),

CHECK(Password>8)

)ENGINE=InnoDB;

CREATE TABLE IF NOT EXISTS CityOfficial(

Username VARCHAR(100) NOT NULL,

Title VARCHAR(30),

Approved BOOLEAN DEFAULT NULL,

City VARCHAR(100),

State VARCHAR(100),

PRIMARY KEY(Username),

FOREIGN KEY(City, State) REFERENCES CityState(City, State)

ON DELETE SET NULL ON UPDATE CASCADE,

FOREIGN KEY(Username) REFERENCES User(Username)

ON DELETE CASCADE ON UPDATE CASCADE,

CHECK(Password >8)

)ENGINE=InnoDB;

CREATE TABLE IF NOT EXISTS POI(

LocName VARCHAR(100) NOT NULL,

Flag BOOLEAN DEFAULT NULL,

DateFlagged DATE,

ZipCode VARCHAR(5) NOT NULL,

City VARCHAR(100) NOT NULL,

State VARCHAR(100) NOT NULL,

PRIMARY KEY(LocName),

FOREIGN KEY(City,State) REFERENCES CityState(City,State)

ON DELETE CASCADE ON UPDATE CASCADE,

CHECK(ZipCode =5)

)ENGINE=InnoDB;

CREATE TABLE IF NOT EXISTS DataPoint(

LocationName VARCHAR(100) NOT NULL,

DateRecorded TIMESTAMP NOT NULL,

Accepted BOOLEAN DEFAULT NULL,

DataValue INT NOT NULL,

DataType ENUM('Mold', 'Air Quality') NOT NULL,

PRIMARY KEY(LocationName, DateRecorded),

FOREIGN KEY(LocationName) REFERENCES POI(LocName)

ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY(DataType) REFERENCES DataType(DataType)

ON DELETE CASCADE ON UPDATE CASCADE

)ENGINE=InnoDB;

**Artificial data:**

INSERT INTO CityState VALUES ('New York','New York');

INSERT INTO CityState VALUES ('Los Angeles','California');

INSERT INTO CityState VALUES ('Chicago','Illinois');

INSERT INTO CityState VALUES ('Houston','Texas');

INSERT INTO CityState VALUES ('Philadelphia','Pennsylvania');

INSERT INTO CityState VALUES ('Phoenix','Arizona');

INSERT INTO CityState VALUES ('San Antonio','Texas');

INSERT INTO CityState VALUES ('San Diego','California');

INSERT INTO CityState VALUES ('Dallas','Texas');

INSERT INTO CityState VALUES ('San Jose','California');

INSERT INTO CityState VALUES ('Austin','Texas');

INSERT INTO CityState VALUES ('Jacksonville','Florida');

INSERT INTO CityState VALUES ('San Francisco','California');

INSERT INTO CityState VALUES ('Indianapolis','Indiana');

INSERT INTO CityState VALUES ('Columbus','Ohio');

INSERT INTO CityState VALUES ('Fort Worth','Texas');

INSERT INTO CityState VALUES ('Charlotte','North Carolina');

INSERT INTO CityState VALUES ('Seattle','Washington');

INSERT INTO CityState VALUES ('Denver','Colorado');

INSERT INTO CityState VALUES ('El Paso','Texas');

INSERT INTO CityState VALUES ('Atlanta','Georgia');

INSERT INTO User VALUES ('scientist1', 'scientist1@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist2', 'scientist2@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist3', 'scientist3@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist4', 'scientist4@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist5', 'scientist5@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist6', 'scientist6@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist7', 'scientist7@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist8', 'scientist8@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist9', 'scientist9@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist10', 'scientist10@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist11', 'scientist11@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('scientist12', 'scientist12@gmail.com', '111111111', 'City Scientist');

INSERT INTO User VALUES ('admin', 'admin@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin1', 'admin1@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin2', 'admin2@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin3', 'admin3@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin4', 'admin4@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin5', 'admin5@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin6', 'admin6@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('admin7', 'admin7@gmail.com', '111111111', 'Administrator');

INSERT INTO User VALUES ('official1', 'official1@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official2', 'official2@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official3', 'official3@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official4', 'official4@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official5', 'official5@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official6', 'official6@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official7', 'official7@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official8', 'official8@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official9', 'official9@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official10', 'official10@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official11', 'official11@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official12', 'official12@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official13', 'official13@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official14', 'official14@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official15', 'official15@gmail.com', '111111111', 'City Official');

INSERT INTO User VALUES ('official16', 'official16@gmail.com', '111111111', 'City Official');

INSERT INTO CityOfficial VALUES ('official1', 'officer', true, 'El Paso','Texas');

INSERT INTO CityOfficial VALUES ('official2', 'officer', false, 'Seattle','Washington');

INSERT INTO CityOfficial VALUES ('official3', 'citizen', true, 'Indianapolis','Indiana');

INSERT INTO CityOfficial VALUES ('official4', 'mayor', Default, 'New York','New York');

INSERT INTO CityOfficial VALUES ('official5', 'officer', true, 'Phoenix','Arizona');

INSERT INTO CityOfficial VALUES ('official6', 'mayor', true, 'Fort Worth','Texas');

INSERT INTO CityOfficial VALUES ('official7', 'senator', Default, 'San Jose','California');

INSERT INTO CityOfficial VALUES ('official8', 'officer', true, 'Phoenix','Arizona');

INSERT INTO CityOfficial VALUES ('official9', 'mayor', true, 'San Diego','California');

INSERT INTO CityOfficial VALUES ('official10', 'officer', Default, 'Philadelphia','Pennsylvania');

INSERT INTO CityOfficial VALUES ('official11', 'mayor', false, 'Chicago','Illinois');

INSERT INTO CityOfficial VALUES ('official12', 'officer', false, 'San Jose','California');

INSERT INTO CityOfficial VALUES ('official13', 'officer', Default, 'Charlotte','North Carolina');

INSERT INTO CityOfficial VALUES ('official14', 'senator', false, 'Atlanta','Georgia');

INSERT INTO CityOfficial VALUES ('official15', 'officer', true, 'Jacksonville','Florida');

INSERT INTO CityOfficial VALUES ('official16', 'officer', true, 'Atlanta','Georgia');

INSERT INTO POI VALUES ('Georgia Tech', true, '2017-02-23', '30332', 'Atlanta', 'Georgia');

INSERT INTO POI VALUES ('GSU', false, Default, '30303', 'Atlanta', 'Georgia');

INSERT INTO POI VALUES ('Emory', false, Default, '30322', 'Atlanta', 'Georgia');

INSERT INTO POI VALUES ('Uchicago', true, '2017-02-24', '60637', 'Chicago', 'Illinois');

INSERT INTO POI VALUES ('UCLA', true, '2016-03-10', '90024', 'Los Angeles','California');

INSERT INTO POI VALUES ('USC', false, Default, '90033', 'Los Angeles','California');

INSERT INTO POI VALUES ('Fisherman Wharf', true, '2016-08-24', '94133', 'San Francisco','California');

INSERT INTO POI VALUES ('Millennium Park', true, '2017-01-10', '60602', 'Chicago', 'Illinois');

INSERT INTO POI VALUES ('Covert Park', false, Default, '78731', 'Austin','Texas');

INSERT INTO POI VALUES ('UPenn', true, '2015-11-28', '19104', 'Philadelphia','Pennsylvania');

INSERT INTO POI VALUES ('Rice University', false, Default, '77251', 'Houston','Texas');

INSERT INTO POI VALUES ('UCSD', true, '2017-03-10', '92093', 'San Diego','California');

INSERT INTO DataType VALUES ('Mold');

INSERT INTO DataType VALUES ('Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-01-31 15:32',true,12,'Mold');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-02-15 16:12',true,42,'Mold');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-02-24 04:29',true,4,'Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-02-01 03:57',true,34,'Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-02-13 21:42',true,75,'Mold');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-03-21 08:52',true,82,'Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2017-01-11 15:22',true,10,'Mold');

INSERT INTO DataPoint VALUES ('Georgia Tech','2016-10-14 11:25',true,6,'Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2016-09-20 07:13',true,47,'Air Quality');

INSERT INTO DataPoint VALUES ('Georgia Tech','2016-07-17 02:13',true,27,'Air Quality');

INSERT INTO DataPoint VALUES ('GSU','2017-01-16 04:22',true,99,'Mold');

INSERT INTO DataPoint VALUES ('GSU','2016-08-05 15:17',true,132,'Air Quality');

INSERT INTO DataPoint VALUES ('GSU','2016-04-04 10:28',true,101,'Mold');

INSERT INTO DataPoint VALUES ('GSU','2015-12-23 12:18',true,96,'Mold');

INSERT INTO DataPoint VALUES ('Emory','2017-01-15 20:19',true,97,'Mold');

INSERT INTO DataPoint VALUES ('Emory','2017-02-31 10:38',true,43,'Air Quality');

INSERT INTO DataPoint VALUES ('Emory','2016-01-21 19:38',true,64,'Mold');

INSERT INTO DataPoint VALUES ('Uchicago','2016-07-28 05:02',true,143,'Air Quality');

INSERT INTO DataPoint VALUES ('Uchicago','2016-04-13 08:11',true,124,'Mold');

INSERT INTO DataPoint VALUES ('Uchicago','2017-01-21 04:47',true,128,'Mold');

INSERT INTO DataPoint VALUES ('Uchicago','2017-03-11 14:29',true,158,'Mold');

INSERT INTO DataPoint VALUES ('UCLA','2016-06-15 11:43',true,53,'Air Quality');

INSERT INTO DataPoint VALUES ('UCLA','2016-01-05 23:24',true,43,'Air Quality');

INSERT INTO DataPoint VALUES ('UCLA','2016-11-08 05:53',true,64,'Mold');

INSERT INTO DataPoint VALUES ('UCLA','2017-03-12 08:32',true,132,'Air Quality');

INSERT INTO DataPoint VALUES ('UCLA','2017-02-25 17:24',true,23,'Mold');

INSERT INTO DataPoint VALUES ('USC','2016-03-11 15:57',true,54,'Mold');

INSERT INTO DataPoint VALUES ('USC','2017-06-14 12:36',true,43,'Mold');

INSERT INTO DataPoint VALUES ('USC','2017-12-23 21:14',true,76,'Air Quality');

INSERT INTO DataPoint VALUES ('Fisherman Wharf','2016-10-21 05:34',true,52,'Mold');

INSERT INTO DataPoint VALUES ('Fisherman Wharf','2016-09-15 02:45',true,76,'Mold');

INSERT INTO DataPoint VALUES ('Fisherman Wharf','2016-12-17 15:24',true,56,'Air Quality');

INSERT INTO DataPoint VALUES ('Fisherman Wharf','2017-03-14 18:35',true,98,'Air Quality');

INSERT INTO DataPoint VALUES ('Fisherman Wharf','2017-02-23 23:19',true,75,'Mold');

INSERT INTO DataPoint VALUES ('Millennium Park','2016-10-14 12:53',true,99,'Air Quality');

INSERT INTO DataPoint VALUES ('Millennium Park','2016-11-23 21:34',true,163,'Mold');

INSERT INTO DataPoint VALUES ('Millennium Park','2016-12-16 14:41',true,153,'Air Quality');

INSERT INTO DataPoint VALUES ('Millennium Park','2017-05-11 11:21',true,123,'Mold');

INSERT INTO DataPoint VALUES ('Millennium Park','2017-03-08 21:56',true,136,'Mold');

INSERT INTO DataPoint VALUES ('Covert Park','2016-10-16 08:10',true,115,'Mold');

INSERT INTO DataPoint VALUES ('Covert Park','2016-09-22 21:17',true,99,'Mold');

INSERT INTO DataPoint VALUES ('Covert Park','2017-02-11 21:45',true,122,'Mold');

INSERT INTO DataPoint VALUES ('Covert Park','2017-03-25 10:56',true,101,'Air Quality');

INSERT INTO DataPoint VALUES ('UPenn','2016-05-15 06:32',true,35,'Air Quality');

INSERT INTO DataPoint VALUES ('UPenn','2016-03-16 06:54',true,12,'Mold');

INSERT INTO DataPoint VALUES ('UPenn','2016-10-11 12:34',true,63,'Mold');

INSERT INTO DataPoint VALUES ('UPenn','2016-12-16 15:13',true,23,'Air Quality');

INSERT INTO DataPoint VALUES ('UPenn','2017-02-26 17:34',true,43,'Mold');

INSERT INTO DataPoint VALUES ('UPenn','2017-02-23 23:13',true,26,'Mold');

INSERT INTO DataPoint VALUES ('Rice University','2017-03-07 06:56',true,52,'Mold');

INSERT INTO DataPoint VALUES ('Rice University','2017-02-08 11:22',true,64,'Air Quality');

INSERT INTO DataPoint VALUES ('Rice University','2017-01-14 14:35',true,25,'Mold');

INSERT INTO DataPoint VALUES ('UCSD','2016-09-16 08:42',true,14,'Air Quality');

INSERT INTO DataPoint VALUES ('UCSD','2016-04-14 10:12',true,15,'Mold');

INSERT INTO DataPoint VALUES ('UCSD','2017-01-23 23:33',true,18,'Mold');