

Phase 2 SQL  
CS 6400 - Fall 2016  
Team 056

```
CREATE DATABASE IF NOT EXISTS erms;  
USE erms;
```

```
DROP TABLE IF EXISTS User;  
CREATE TABLE IF NOT EXISTS User (  
    username varchar(50) NOT NULL,  
    name varchar(50) NOT NULL,  
    password varchar(50) NOT NULL,  
    PRIMARY KEY (username)  
);
```

```
DROP TABLE IF EXISTS Municipality;  
CREATE TABLE IF NOT EXISTS Municipality (  
    username varchar(50) NOT NULL,  
    pop_size integer NOT NULL,  
    PRIMARY KEY (username),  
    FOREIGN KEY (username)  
        REFERENCES User(username)  
);
```

```
DROP TABLE IF EXISTS Individual;  
CREATE TABLE IF NOT EXISTS Individual (  
    username varchar(50) NOT NULL,  
    job_title varchar(50) NOT NULL,  
    hire_date date NOT NULL,  
    PRIMARY KEY (username),  
    FOREIGN KEY (username)  
        REFERENCES User(username)  
);
```

```
DROP TABLE IF EXISTS Government_Agency;  
CREATE TABLE IF NOT EXISTS Government_Agency (  
    username varchar(50) NOT NULL,  
    jurisdiction varchar(50) NOT NULL,  
    PRIMARY KEY (username),  
    FOREIGN KEY (username)  
        REFERENCES User(username)  
);
```

```
DROP TABLE IF EXISTS Company;
CREATE TABLE IF NOT EXISTS Company(
    username varchar(50) NOT NULL,
    HQ_location varchar(50) NOT NULL,
    PRIMARY KEY (username),
    FOREIGN KEY (username)
        REFERENCES User(username)
);
```

```
DROP TABLE IF EXISTS Incident;
CREATE TABLE IF NOT EXISTS Incident(
    ID integer NOT NULL AUTO_INCREMENT,
    date date NOT NULL,
    description varchar(500) NOT NULL,
    latitude decimal(9,6) NOT NULL,
    longitude decimal(9,6) NOT NULL,
    owner varchar(50) NOT NULL,
    PRIMARY KEY (ID),
    FOREIGN KEY (owner)
        REFERENCES User(username)
);
```

```
DROP TABLE IF EXISTS ESF;
CREATE TABLE IF NOT EXISTS ESF(
    ID integer NOT NULL,
    description varchar(75) NOT NULL,
    PRIMARY KEY (ID)
);
```

```
DROP TABLE IF EXISTS Cost_unit;
CREATE TABLE IF NOT EXISTS Cost_unit (
    time_unit varchar(50) NOT NULL,
    PRIMARY KEY (time_unit)
);
```

```
-- possible status values are 0 (available), 1 (in use), 2 (in repair)
DROP TABLE IF EXISTS Resource;
CREATE TABLE IF NOT EXISTS Resource(
    ID integer NOT NULL AUTO_INCREMENT,
    name varchar(50) NOT NULL,
    status integer DEFAULT 0 NOT NULL,
    model varchar(50),
```

```

latitude decimal(9,6) NOT NULL,
longitude decimal(9,6) NOT NULL,
primary_esf integer NOT NULL,
cost_amount decimal(10,4) NOT NULL,
cost_unit varchar(50) NOT NULL,
owner varchar(50) NOT NULL,
PRIMARY KEY (ID),
FOREIGN KEY (primary_esf)
    REFERENCES ESF(ID),
FOREIGN KEY (cost_unit)
    REFERENCES Cost_unit(time_unit),
FOREIGN KEY (owner)
    REFERENCES User(username)
);

```

```

-- 0 for repair, 1 for borrow, 2 for deploy
DROP TABLE IF EXISTS Request;
CREATE TABLE IF NOT EXISTS Request (
    Resource_id integer NOT NULL,
    requester_id varchar(50) NOT NULL,
    start_date datetime NOT NULL,
    end_date datetime NOT NULL,
    Incident_id integer,
    type integer NOT NULL,
    owner varchar(50) NOT NULL,
    UNIQUE(resource_id, requester_id),
    FOREIGN KEY (resource_id)
        REFERENCES Resource(ID),
    FOREIGN KEY (requester_id)
        REFERENCES User(username),
    FOREIGN KEY (owner)
        REFERENCES User(username),
    FOREIGN KEY (Incident_id)
        REFERENCES Incident(ID)
);

```

```

DROP TABLE IF EXISTS Resource_Secondary_ESF;
CREATE TABLE IF NOT EXISTS Resource_Secondary_ESF(
    ESF_ID integer NOT NULL,
    Resource_ID integer NOT NULL,
    UNIQUE (ESF_ID, Resource_ID),
    FOREIGN KEY (ESF_ID)
        REFERENCES ESF(ID),

```

```
FOREIGN KEY (Resource_ID)
REFERENCES Resource(ID)
);
```

```
DROP TABLE IF EXISTS Resource_Capabilities;
CREATE TABLE IF NOT EXISTS Resource_Capabilities (
    Resource_ID integer NOT NULL,
    Capability varchar(50) NOT NULL,
    UNIQUE (Resource_ID, Capability),
    FOREIGN KEY (Resource_ID)
    REFERENCES Resource(ID)
);
```

-- TEST DATA TO POPULATE DATABASE

-- USERS

```
INSERT INTO User(username, name, password) VALUES('jsmith', 'John Smith', 'pw1');
INSERT INTO Individual(username, job_title, hire_date) VALUES ('jsmith', 'Software
Engineer','20120618');
INSERT INTO User(username, name, password) VALUES('apple', 'Apple Corporation', 'pw2');
INSERT INTO Company(username, HQ_location) VALUES ('apple', 'San Francisco');
INSERT INTO User(username, name, password) VALUES('Atlanta', 'Atlanta City Government',
'pw3');
INSERT INTO Municipality(username, pop_size) VALUES ('Atlanta', '450000');
INSERT INTO User(username, name, password) VALUES('Army', 'U.S. Army', 'pw4');
INSERT INTO Government_Agency(username, jurisdiction) VALUES ('Army', 'United States');
```

-- ESF TABLE (from spec doc)

```
INSERT INTO ESF(ID, description) VALUES(1, 'Transportation');
INSERT INTO ESF(ID, description) VALUES(2, 'Communications');
INSERT INTO ESF(ID, description) VALUES(3, 'Public Works and Engineering');
INSERT INTO ESF(ID, description) VALUES(4, 'Firefighting');
INSERT INTO ESF(ID, description) VALUES(5, 'Emergency Management');
INSERT INTO ESF(ID, description) VALUES(6, 'Mass Care, Emergency Assistance, Housing,
and Human Services');
INSERT INTO ESF(ID, description) VALUES(7, 'Logistics Management and Resource Support');
INSERT INTO ESF(ID, description) VALUES(8, 'Logistics Management and Resource Support');
INSERT INTO ESF(ID, description) VALUES(9, 'Search and Rescue');
INSERT INTO ESF(ID, description) VALUES(10, 'Oil and Hazardous Materials Response');
INSERT INTO ESF(ID, description) VALUES(11, 'Agriculture and Natural Resources');
```

```

INSERT INTO ESF(ID, description) VALUES(12, 'Energy');
INSERT INTO ESF(ID, description) VALUES(13, 'Public Safety and Security');
INSERT INTO ESF(ID, description) VALUES(14, 'Long-Term Community Recovery');
INSERT INTO ESF(ID, description) VALUES(15, 'External Affairs');

-- COST UNIT
INSERT INTO Cost_unit(time_unit) VALUES ('USD');
INSERT INTO Cost_unit(time_unit) VALUES ('CAD');

-- INCIDENTS
INSERT INTO Incident(date, description, latitude, longitude, owner) VALUES ('20160618',
'Flash Floods in Fulton County', 33.68, -87.98,'jsmith');
INSERT INTO Incident(date, description, latitude, longitude, owner) VALUES ('20160619',
'Tornado in Fairfax County', 38.31, -84.67,'Army');

-- RESOURCES
INSERT INTO Resource(name, model, latitude, longitude, primary_esf, cost_amount, cost_unit,
owner)
VALUES ('Hummer', '2015 Hummer', 45.67, -54.23, 1, 35000, 'USD', 'jsmith');
INSERT INTO Resource_Secondary_ESF (resource_id, esf_id) VALUES (1, 9);
INSERT INTO Resource_Capabilities (resource_id, capability) VALUES (1, 'GPS');
INSERT INTO Resource_Capabilities (resource_id, capability) VALUES (1, 'OnBoard
Computer');

INSERT INTO Resource(name, model, latitude, longitude, primary_esf, cost_amount, cost_unit,
owner)
VALUES ('Apache Helicopter', 'Boeing AH-64 Apache', 76.17, -84.23, 1, 450000, 'USD',
'Army');
INSERT INTO Resource_Secondary_ESF (resource_id, esf_id) VALUES (2, 9);
INSERT INTO Resource_Secondary_ESF (resource_id, esf_id) VALUES (2, 13);
INSERT INTO Resource_Capabilities (resource_id, capability) VALUES (2, 'GPS');
INSERT INTO Resource_Capabilities (resource_id, capability) VALUES (2, 'First Aid');
INSERT INTO Resource_Capabilities (resource_id, capability) VALUES (2, 'Machine Gun');

-- REQUESTS
INSERT INTO Request(resource_id, requester_id, start_date, duration, incident_id, type,
owner)
VALUES(2,'jsmith','20160618', '20160621', 1, 0, 'Army');
INSERT INTO Request(resource_id, requester_id, start_date, duration, incident_id, type,
owner)
VALUES(1,'apple','20160620', '20160622', 2, 0, 'jsmith');

```

