Final Project Massage Therapy Small Business Database

OUTLINE

This database is for a small massage therapy business. It may be used to keep track of the business's clientele, massage therapists employed, services (types of massages) offered, the locations at which the services will be performed, the actual appointments themselves – containing information pertinent to an appointment – the position titles of each massage therapist, and the certifications, if any, held by each massage therapist.

DATABASE OUTLINE:

The entities included in this database are:

- Clients,
- Massage therapists,
- Appointments,
- Services (types of massage therapy offered),
- Locations of the massage,
- Certifications held by the massage therapist, and
- Positions held by the massage therapist

Clients:

The 'Clients' table contains a:

- Client id.
- First name.
- Last name,
- Email.
- Phone number.
- Full address, and
- Date of birth

The 'Clients' primary key is the client's id, which is used for a join as a foreign key in the 'Appointments' table to set up clients' unique appointments.

Massage Therapists:

The 'Therapists' table consists of a:

- Massage therapist id,
- · First name, and
- Last name

The 'Therapists' primary key is the therapist's id, which is used for joins to the 'Therapists_certs' table to join with the 'Certs' table, the 'Therapists_positions' table to join with the 'Positions' table, and the 'Therapists_services' table to be joined with the 'Services' table.

I decided not to have the first and last names be unique because there could be cases in which multiple clients have the same first and last name.

Appointments:

The 'Appointments' table contains a:

- Client id,
- Visit id,
- Date of the visit,
- Time of the visit,
- A therapist who will perform the service,
- The service to be performed,
- The location of the session

The 'Appointments' primary key is the combination of the visit id and the client id, since each appointment will **belong** to a specific client.

Services:

The 'Services' table consists of a:

- Service id,
- Name of the service being performed

The 'Services' primary key is the service id.

Locations:

The 'Locations' table consists of a:

- Location id.
- Nickname of the location
- Full address

The 'Locations' primary key is the location id.

Certifications:

The 'Certs' table consists of a:

- Certification id,
- Name of certification

The 'Certs' primary key is the id.

Positions:

The 'Positions' table describes the title held by a massage therapist. For example, the owner, the workers' titles, etc. This table consists of:

- Position id.
- name of the position

The 'Positions' primary key is the id. In my user interface, upon adding a massage therapist, it is not required that the massage therapist hold a "position" in the business.

The relationship tables used to join other tables together are:

Therapists_positions, Therapists_certs, and Therapists_services. Other than the ids as primary keys, the only other attributes in any of these relationship tables is in the Therapists_certs table; the date the certification was acquired and the date that the certification expires, if ever. The date acquired is required upon input when associating a new certification to a massage therapist.

Data Definition Queries:

```
-- Program Name: main.sql
-- Assignment Name: Final Project
-- Author: Elizabeth Premer
-- Date Due: 18 March 2018
-- Description: table creation
DROP TABLE IF EXISTS 'Clients';
DROP TABLE IF EXISTS 'Therapists';
DROP TABLE IF EXISTS 'Appointments';
DROP TABLE IF EXISTS 'Positions';
DROP TABLE IF EXISTS 'Certs';
DROP TABLE IF EXISTS 'Services';
DROP TABLE IF EXISTS 'Locations';
DROP TABLE IF EXISTS 'Therapists_services';
DROP TABLE IF EXISTS 'Therapists positions';
DROP TABLE IF EXISTS 'Therapists certs';
CREATE TABLE 'Clients' (
 'c client id' int(11) NOT NULL AUTO INCREMENT,
`c_name_first` varchar(255) NOT NULL,
`c_name_last` varchar(255) NOT NULL,
'email' varchar(50) NOT NULL, -- validate in frontend in html
`phone` int(11) NOT NULL,
 'address st' varchar(255),
 `address_city` varchar(255),
 `address_state` varchar(255),
`address_zip` int(5),
'dob' date.
PRIMARY KEY ('c_client_id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE 'Therapists' (
`t_therapist_id` int(11) NOT NULL AUTO_INCREMENT,
't name first' varchar(255) NOT NULL,
't name last' varchar(255) NOT NULL,
PRIMARY KEY ('t_therapist_id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Services' (
's service id' int(11) NOT NULL AUTO INCREMENT,
's name' varchar(255) NOT NULL,
PRIMARY KEY ('s service id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Appointments' (
 'a visit id' int(11) NOT NULL AUTO INCREMENT,
`a client id` int(11),
'date' date NOT NULL,
'time' time NOT NULL,
'a therapist id' int(11) NOT NULL,
`a_service_id` int(11) NOT NULL,
`a_location_id` int(11) NOT NULL,
PRIMARY KEY ('a visit id'), /* should prim key be combo of visit AND client ids? */
              /* should client and visit ids be unique? does it matter? */
FOREIGN KEY ('a_client_id') REFERENCES 'Clients' ('c_client_id'),
FOREIGN KEY ('a_therapist_id') REFERENCES 'Therapists' ('t_therapist_id'),
FOREIGN KEY ('a_service_id') REFERENCES 'Services' ('s_service_id'),
FOREIGN KEY ('a location id') REFERENCES 'Locations' ('l location id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Locations' (
`l_location_id` int(11) NOT NULL AUTO_INCREMENT,
'l_name' varchar(255) NOT NULL,
`address_st` varchar(255),
`address_city` varchar(255),
'address state' varchar(255),
`address_zip` varchar(255),
PRIMARY KEY (`l_location_id`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Certs' (
'c cert id' int(11) NOT NULL AUTO INCREMENT,
'c name' varchar(255) NOT NULL,
```

```
PRIMARY KEY ('c_cert_id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Positions' (
 `p_position_id` int(11) NOT NULL AUTO_INCREMENT,
'p_name' varchar(255) NOT NULL,
PRIMARY KEY ('p position id')
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Therapists services' (
'ts therapist id' int(11),
`ts_service_id` int(11),
PRIMARY KEY ('ts_therapist_id', 'ts_service_id'),
FOREIGN KEY ('ts_therapist_id') REFERENCES 'Therapists' ('t_therapist_id') ON
DELETE CASCADE,
FOREIGN KEY ('ts service id') REFERENCES 'Services' ('s_service_id') ON DELETE
CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE 'Therapists_positions' (
 'tp therapist id' int(11),
`tp_position_id` int(11),
PRIMARY KEY ('tp_therapist_id', 'tp_position_id'),
FOREIGN KEY ('tp_therapist_id') REFERENCES 'Therapists' ('t_therapist_id') ON
DELETE CASCADE.
FOREIGN KEY ('tp position id') REFERENCES 'Positions' ('p position id') ON
DELETE CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE `Therapists_certs` (
`tc_therapist_id` int(11),
`tc_cert_id` int(11),
'date_acquired' date NOT NULL,
'date expires' date,
PRIMARY KEY ('tc_therapist_id', 'tc_cert_id'),
FOREIGN KEY ('tc_cert_id') REFERENCES 'Certs' ('c_cert_id') ON DELETE
CASCADE,
FOREIGN KEY ('tc therapist id') REFERENCES 'Therapists' ('t therapist id') ON
DELETE CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
/* PRE-POPULATED DATA */
-- insert the following into the client table:
INSERT INTO 'Clients' ('c_name_first', 'c_name_last', 'email', 'phone', 'address_st',
'address city', 'address state', 'address zip', 'dob')
VALUES ('Sara', 'Smith', 'sarasmiles@someaddress.com', '8055551234', '1358 20th
Street', 'Oceano', 'CA', '93445', '1983-12-11');
INSERT INTO 'Clients' ('c name first', 'c name last', 'email', 'phone', 'address st',
`address_city`, `address_state`, `address_zip`, `dob`)
  VALUES ('Barbara', 'Jones', 'bababarbara.ann@someaddress.com', '8055552345',
'1353 20th Street', 'Oceano', 'CA', '93445', '1991-01-21');
INSERT INTO 'Clients' ('c_name_first', 'c_name_last', 'email', 'phone', 'address_st',
`address_city`, `address_state`, `address_zip`, `dob`)
   VALUES ('Danny', 'Angel', 'earth.angel@someaddress.com', '8055559876', '1531
Hillcrest Dr', 'Arroyo Grande', 'CA', '93420', '1989-06-19');
INSERT INTO 'Clients' ('c_name_first', 'c_name_last', 'email', 'phone', 'address_st',
`address_city`, `address_state`, `address_zip`, `dob`)
    VALUES ('Katie', 'Smith', 'ktbug@someaddress.com', '8055556978', '1531
Hillcrest Dr', 'Arroyo Grande', 'CA', '93420', '1989-01-01');
INSERT INTO 'Clients' ('c_name_first', 'c_name_last', 'email', 'phone', 'address_st',
'address city', 'address state', 'address zip', 'dob')
     VALUES ('Julia', 'Matthews', 'jules@someaddress.com', '8055552323', '1531
Hillcrest Dr', 'Arroyo Grande', 'CA', '93420', '1983-12-11');
-- insert the following into the therapist table
INSERT INTO 'Therapists' ('t name first', 't name last') VALUES ('Lizzie', 'Premer');
INSERT INTO `Therapists` (`t_name_first`, `t_name_last`) VALUES ('Rebekah',
'Hughton');
INSERT INTO 'Therapists' ('t_name_first', 't_name_last') VALUES ('Stanley',
'Baldwin');
-- insert the following into the certfication table:
INSERT INTO `Certs` (`c_name`) VALUES ('Ashiatsu');
INSERT INTO `Certs` (`c_name`) VALUES ('CAMTC');
INSERT INTO `Certs` (`c_name`) VALUES ('Deep Tissue');
-- insert the following into the service table:
INSERT INTO `Services` (`s_name`) VALUES ('Swedish');
```

```
INSERT INTO 'Services' ('s name') VALUES ('Ashiatsu'):
INSERT INTO 'Services' ('s name') VALUES ('Deep Tissue');
INSERT INTO `Services` (`s_name`) VALUES ('Prenatal');
-- insert the following into the location table:
INSERT INTO `Locations` (`l_name`, `address_st`, `address_city`, `address_state`,
'address zip')
VALUES ('Studio', '825 El Capitan Way, Ste 18A', 'San Luis Obispo', 'CA', '93401');
INSERT INTO `Locations` (`l_name`, `address_st`, `address_city`, `address_state`,
'address zip')
  VALUES ('MBO', '4051 Broad St', 'San Luis Obispo', 'CA', '93401');
-- insert the following into the position table:
INSERT INTO `Positions` (`p_name`) VALUES ('Owner');
INSERT INTO `Positions` (`p_name`) VALUES ('Massage Therapist');
-- insert into the therapist_service table:
INSERT INTO 'Therapists_services' ('ts_therapist_id', 'ts_service_id')
VALUES ( (SELECT 't therapist id' FROM 'Therapists' WHERE 't name first' =
'Lizzie'),
     (SELECT `s_service_id` FROM `Services` WHERE `s_name` = 'Ashiatsu'));
INSERT INTO 'Therapists services' ('ts therapist id', 'ts service id')
VALUES ( (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` =
'Lizzie').
     (SELECT `s_service_id` FROM `Services` WHERE `s_name` = 'Deep Tissue'));
INSERT INTO 'Therapists services' ('ts therapist id', 'ts service id')
VALUES ( (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` =
'Rebekah').
     (SELECT `s_service_id` FROM `Services` WHERE `s_name` = 'Deep Tissue'));
-- insert into the therapist_position table:
INSERT INTO 'Therapists positions' ('tp therapist id', 'tp position id')
```

```
VALUES ( (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` =
'Lizzie'),
     (SELECT `p_position_id` FROM `Positions` WHERE `p_name` = 'Owner'));
INSERT INTO 'Therapists_positions' ('tp_therapist_id', 'tp_position_id')
VALUES ( (SELECT 't therapist id' FROM 'Therapists' WHERE 't name first' =
'Lizzie').
     (SELECT 'p position id' FROM 'Positions' WHERE 'p name' = 'Massage
Therapist'));
INSERT INTO 'Therapists_positions' ('tp_therapist_id', 'tp_position_id')
VALUES ( (SELECT 't therapist id' FROM 'Therapists' WHERE 't name first' =
'Rebekah').
     (SELECT `p_position_id` FROM `Positions` WHERE `p_name` = 'Massage
Therapist'));
-- insert into the therapist certs tables
INSERT INTO 'Therapists_certs' ('tc_therapist_id', 'tc_cert_id', 'date_acquired',
'date expires')
VALUES ( (SELECT 't therapist id' FROM 'Therapists' WHERE 't name first' =
'Lizzie').
     (SELECT `c_cert_id` FROM `Certs` WHERE `c_name` = 'CAMTC'),
     '2014-05-15', '2019-05-14');
INSERT INTO 'Therapists_certs' ('tc_therapist_id', 'tc_cert_id', 'date_acquired')
VALUES ( (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` =
'Lizzie').
     (SELECT 'c cert id' FROM 'Certs' WHERE 'c name' = 'Ashiatsu'),
     '2015-07-01'); -- NULL for date expires?
     -- insert the following into the appointment table:
-- first visit of client 1 (Sara Smith), with therapist 1 (lizzie), for service 1 (swedish)
in location 1 (studio)
INSERT INTO 'Appointments' ('a_client_id', 'date', 'time', 'a_therapist_id',
`a_service_id`, `a_location_id`)
  VALUES ( (SELECT 'c client id' FROM 'Clients' WHERE 'c name first' = 'Sara' AND
`c_name_last` = 'Smith'), '2018-03-01', '12:30:00',
    (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` = 'Lizzie'
AND `t name last` = 'Premer'),
    (SELECT 's service id' FROM 'Services' WHERE 's_name' = 'Swedish'),
    (SELECT `l_location_id` FROM `Locations` WHERE `l_name` = 'studio') );
-- second visit of client 1 (Sara Smith), with therapist 1 (lizzie), for service 1
(swedish) in location 1 (studio)
```

```
INSERT INTO 'Appointments' ('a_client_id', 'date', 'time', 'a_therapist_id',
`a_service_id`, `a_location_id`)
  VALUES ( (SELECT `c_client_id` FROM `Clients` WHERE `c_name_first` = 'Sara' AND
`c_name_last` = 'Smith'), '2018-03-11', '12:30:00',
    (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` = 'Lizzie'
AND 't name last' = 'Premer').
    (SELECT `s_service_id` FROM `Services` WHERE `s_name` = 'Swedish'),
    (SELECT 'l location id' FROM 'Locations' WHERE 'l name' = 'studio') );
-- first visit of client 2 (Barbara Jones), with therapist 2 (rebekah), for service 2
(ashiatsu) in location 1 (studio)
INSERT INTO 'Appointments' ('a_client_id', 'date', 'time', 'a_therapist_id',
'a service id', 'a location id')
  VALUES ( (SELECT `c_client_id` FROM `Clients` WHERE `c_name_first` = 'Danny'
AND `c name last` = 'Angel'), '2018-02-25', '14:30:00',
    (SELECT `t_therapist_id` FROM `Therapists` WHERE `t_name_first` = 'Rebekah'
AND 't name last' = 'Hughton'),
    (SELECT's service id' FROM'Services' WHERE's name' = 'Ashiatsu'),
    (SELECT `l_location_id` FROM `Locations` WHERE `l_name` = 'studio') );
```

Data Manipulation Queries:

Queries used in .js functions:

For the Therapists table (in therapists.js)

```
In router.post('/', function(req, res){
```

```
INSERT INTO Therapists [t name first], [t name last];
      INSERT INTO Therapists_positions (tp_therapist_id, tp_position_id) VALUES
((SELECT t therapist id FROM Therapists WHERE t name first=? AND
t name last=?), ?) INSERT INTO Therapists positions (tp therapist id,
tp_position_id) VALUES ((SELECT t_therapist_id FROM Therapists WHERE
t name first=? AND t name last=?), ?)
In function getTherapistCert(res, mysql, context, therapist id, cert id, complete){
       SELECT t therapist id, t name first, t name last, c cert id, c name,
DATE_FORMAT('date_acquired', '%Y-%m-%d') AS 'date_acquired',
DATE FORMAT('date expires', '%Y-%m-%d') AS 'date expires'
      FROM Therapists
      LEFT JOIN Therapists certs
      ON t_therapist_id=tc_therapist_id
      LEFT IOIN Certs
      ON tc cert id=c cert id
      WHERE t therapist id=[t therapist id] AND c cert id=[c cert id]
In function getTherapistPosAndCert
      SELECT t_therapist_id, t_name_first, t_name_last, p_position_id, c_cert_id,
date acquired, date expires
      FROM Therapists
      LEFT JOIN Therapists_positions
      ON t therapist id=tp therapist id
      LEFT JOIN Positions
      ON tp_position_id=p_position_id
      LEFT JOIN Therapists_certs
      ON t_therapist_id=tc_therapist_id
      LEFT JOIN Certs
      ON tc cert id=c cert id
      WHERE t_therapist_id=[t_therapist_id];
In router.post('/', function(reg, res){
      INSERT INTO Therapists (t_name_first, t_name_last)
      VALUES ([t_name_first], [t_name_last]);
      INSERT INTO Therapists certs (tc therapist id, tc cert id, date acquired,
date_expires)
      VALUES ( (SELECT t_therapist_id FROM Therapists WHERE
t_name_first=[t_name_first] AND t_name_last=[t_name_last]), [t_name_first],
[t name last], [certs], [date acquired], [date expires]);
```

INSERT INTO Therapists_positions (tp_therapist_id, tp_position_id)

```
VALUES ((SELECT t_therapist_id FROM Therapists WHERE
t name first=[t name first] AND t name last=[t name last]), [pos.forEach - which
is an array type variable])
In router.put('/:id', function(req, res){
      UPDATE Therapists
      SET t_name_first=[t_name_first], t_name_last=[t_name_last] WHERE
t_therapist_id=[t_therapist_id];
In router.delete('/:id', function(req, res){
      DELETE FROM Therapists
      WHERE t_therapist_id=[t_therapist_id];
In router.delete('/:therapist_id/p/:position_id', function(req, res){
      DELETE FROM Therapists_positions
      WHERE tp_therapist_id = [tp_therapist_id] AND
tp_position_id=[tp_position_id];
In router.delete('/:therapist_id/c/:cert_id', function(reg, res){
      DELETE FROM Therapists certs
      WHERE tc_therapist_id=[tc_therapist_id] AND tc_cert_id=[tc_cert_id];
For the Services table (in services.js)
In function getService(){
      SELECT s_service_id, s_name
      FROM Services
      WHERE's service id = [s service id];
In router.post('/', function(reg, res){
      INSERT INTO Services (s_name) VALUES ([s_name]);
In router.put('/:id', function(req, res){
      UPDATE Services SET s_name=[s_name]
      WHERE s_service_id=[s_service_id];
In router.delete('/:id', function(reg, res){
      DELETE FROM Services WHERE s_service_id = [s_service_id];
In Positions table (in positions.js)
In function getPosition(res, mysql, context, id, complete){
      SELECT p position id, p name
      FROM Positions
```

```
WHERE p_position_id = [p_position_id];
In router.post('/', function(reg, res){
       INSERT INTO Positions (p name) VALUES ([p name]);
In router.put('/:id', function(reg, res){
      UPDATE Positions SET p_name=[p_name]
      WHERE p position id=[p position id];
In router.delete('/:id', function(req, res){
       DELETE FROM Positions WHERE p position id = [p position id]:
In Locations table (in locations.js)
In function getLocation(res, mysql, context, id, complete){
       SELECT l_location_id, l_name, address_st, address_city, address_state,
address zip
      FROM Locations
      WHERE l_location_id = [l_location_id];
In router.post('/', function(req, res){
       INSERT INTO Locations (l_name, address_st, address_city, address_state,
address_zip) VALUES ([l_name], [address_st], [address_city], [address_state],
[address zip]);
In router.put('/:id', function(reg, res){
      UPDATE Locations SET l_name=[l_name], address_st=[address_st],
address_city=[address_city], address_state=[address_state],
address zip=[address zip]
      WHERE I location id=[I location id];
In router.delete('/:id', function(reg, res){
      DELETE FROM Locations WHERE I location id = [I location id];
In Clients table (in clients.js)
In function getClient(res, mysql, context, id, complete){
       SELECT c client id, c name first, c name last, phone, email, address st,
address_city, address_state, address_zip, dob
       FROM Clients
      WHERE c_client_id=[c_client_id];
In router.post('/', function(req, res){
      INSERT INTO Clients (c_name_first, c_name_last, phone, email, address_st,
address city, address state, address zip, dob ) VALUES ([c name first],
```

```
[c_name_last], [phone], [email], [address_st], [address_city], [address_state],
[address_zip]);
In router.put('/:id', function(reg, res){
      UPDATE Clients SET c_name_first=[c_name_first], c_name_last=[c_name_last],
phone=[phone], email=[email], address_st=[address_st],
address_city=[address_city], address_state=[address_state],
address zip=[address zip], dob=[dob]
      WHERE c_client_id=[c_client_id];
In router.delete('/:id', function(req, res){
       DELETE FROM Clients
      WHERE c_client_id = [c_client_id];
In Certs table (in certs.js)
In function getCert(res, mysql, context, id, complete){
       SELECT c_cert_id, c_name
       FROM Certs
      WHERE c_cert_id=[c_cert_id];
In router.post('/', function(reg, res){
      INSERT INTO Certs (c name) VALUES ([c cert id]);
In router.put('/:id', function(reg, res){
      UPDATE Certs SET c_name=? WHERE c_cert_id=[c_cert_id];
In router.delete('/:id', function(reg, res){
       DELETE FROM Certs WHERE c cert id = [c cert id];
In Appointments table (in appointments.js)
In function getAppointment(res, mysql, context, id, complete){
       SELECT SELECT a_visit_id, a_client_id, date, time, a_therapist_id, a_service_id,
a_location_id
       FROM Appointments
      WHERE a client id=[a client id] AND a visit id=[a visit id];
In function getTherapist(res, mysql, context, id, complete){
       SELECT t therapist id, t name first, t name last
       FROM Therapists
      WHERE t_therapist_id=[t_therapist_id];
In function getClient(res, mysql, context, id, complete){
```

```
SELECT c_client_id, c_name_first, c_name_last
FROM Clients WHERE c_client_id=[c_client_id];

In function getService(res, mysql, context, id, complete){
    SELECT s_service_id, s_name
    FROM Services
    WHERE s_service_id=[s_service_id];

In function getLocation(res, mysql, context, id, complete){
    SELECT l_location_id, l_name
    FROM Locations
    WHERE l_location_id=[l_location_id];

In router.post('/', function(req, res){
    INSERT INTO Appointments (date, time) VALUES ([date], [time]);
```

Website Functionality:

There is a webpage on the website for every entity. Each respective page consists of the option to **add** a new version of that entity – in the form of a form. And the therapists page provides the option to update a given massage therapist, and the option to delete that therapists associated attributes. Namely, the certifications and positions, if any, that massage therapist holds. And finally, the option to delete the therapist entirely and cascading through to delete the associated positions and certifications.

In addition to an add option, each entity page also shows a table with the populated data already stored in the database for that particular entity and any relationships with which it is associated.

REQUIREMENTS:

Outline – See top of document
Database Outline – See top of document
ER Diagram – See attached pdf
Schema – see attached pdf
Data Definitions – see middle section of current document
Data Manipulations – see middle section of current document
Website Functionality – http://flip1.engr.oregonstate.edu:9110