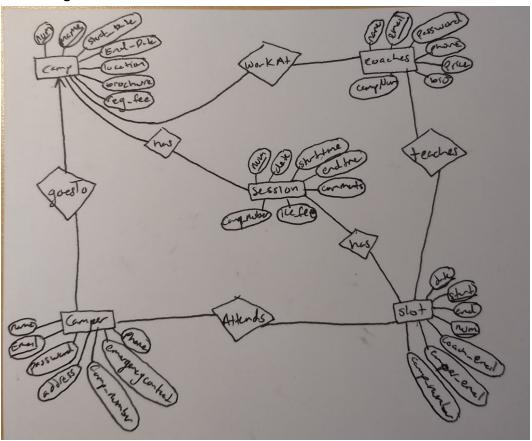
1. E-R diagram and relational schema



2. SQL schema script. That is the create table statement create table camp(num int AUTO_INCREMENT, name varchar(30) not null, start_date date, end_date date, location varchar(40) not null, brochure varchar(30), reg_fee float(4, 2) not null, primary key (num, name)); create table session(num int primary key AUTO_INCREMENT, date date not null, start time not null, end time not null, comments varchar(600), ice_fee float(4, 2) not null, camp_number int not null, foreign key (camp_number) references camp(num));

```
create table coach(
   name char(30) not null,
   email char(30) primary key,
   password char(10) not null,
   address char(40) not null,
   phone int(10) not null,
   price float(4, 2) not null,
  bio varchar(600),
   camp_number int not null,
   foreign key (camp_number) references camp(num));
create table camper(
   name char(30) not null,
   email char(30) primary key,
   password char(10) not null,
   address char (40) not null,
   phone int(10) not null,
   emergency_contact int(10),
   camp_number int not null,
   foreign key (camp_number) references camp(num));
create table slot(
   date date not null,
   start time not null,
   end time not null,
  num int not null,
   coach_email char(30),
   camper_email char(30),
   camp_number int not null,
   primary key ( date, start, num ),
   foreign key (num) references session(num),
   foreign key (coach_email) references coach(email),
   foreign key (camper_email) references camper(email),
   foreign key (camp_number) references camp(num));
create procedure addSession( date date, start_time time, price float(4, 2), campNum int )
   begin
   insert into session( date, start, end, ice_fee, camp_number ) values ( date,
start_time, addtime(start_time, '00:45:00'), price, campNum);
   end//
create procedure addSlot( date date, start_time time, num int, campNum int )
   insert into slot( date, start, end, num, camp_number ) values ( date, start_time,
addtime(start_time, '00:15:00'), num, campNum );
   end//
```

```
create procedure addCoach( name char(30), email char(30), password char(10), address
char(40), phone int(10), price float(4, 2), campNum int)
  begin
   insert into coach(name, email, password, address, phone, price, camp_number)
values(name, email, password, address, phone, price, campNum);
   end//
create procedure addCamp( name varchar(30), start date, end date, location varchar(40),
brochure varchar(30), fee float(4, 2) )
  begin
   insert into camp( name, start_date, end_date, location, brochure, reg_fee) values
(name, start, end, location, brochure, fee);
   end//
create trigger sessionSlots after insert on session for each row
   call addSlot( NEW.date, NEW.start, NEW.num, NEW.camp_number);
   call addSlot( NEW.date, addtime(NEW.start, '00:15:00'), NEW.num, NEW.camp_number);
   call addSlot( NEW.date, addtime(NEW.start, '00:30:00'), NEW.num, NEW.camp number);
  end//
grant select, delete, update, insert on camp to 'cs3425gr'@'%';
grant select, delete, update, insert on session to 'cs3425gr'@'%';
grant select, delete, update, insert on slot to 'cs3425gr'@'%';
grant select, delete, update, insert on coach to 'cs3425gr'@'%';
grant select, delete, update, insert on camper to 'cs3425gr'@'%';
grant execute on procedure addSession to 'cs3425gr'@'%';
grant execute on procedure addSlot to 'cs3425gr'@'%';
grant execute on procedure addCoach to 'cs3425gr'@'%';
grant execute on procedure addcamp to 'cs3425gr'@'%';
    Create two coach users, Alice and Joe
1.
     a. Use procedure addCoach
     b.
        mysql> call addCoach('Alice', 'alice@', 'alice', 'address', 1234567890, 10, 1);
        Query OK, 1 row affected (0.01 sec)
        mysql> call addCoach('Joe', 'joe@', 'joe', 'address', 0192837465, 12, 1);
        Query OK, 1 row affected (0.01 sec)
     С.
     Before:
        mysql> select * from coach;
        Empty set (0.00 sec)
     After:
  mysql> select * from coach;
```

3.

```
| name | email | password | address | phone | price | bio | camp_number |
         +-----+
         | Alice | alice@ | alice | address | 1234567890 | 10.00 | NULL |
         | Joe | joe@ | joe | address | 192837465 | 12.00 | NULL |
                                                                     1 |
         2 rows in set (0.01 sec)
      2.
           Create a new camp Summer18
           a. Use procedure addCamp
           b.
             mysql> call addCamp( 'Summer Skating Camp 2018', '2018-08-06', '2018-08-10',
             'houghton', 'n/a', 30);
             Query OK, 1 row affected (0.01 sec)
           С.
           Before:
             mysql> select * from coach;
             Empty set (0.00 sec)
           After:
mysql> select * from camp;
| start_date | end_date | location | brochure | reg_fee |
l num l name
+----+
   1 | Summer Skating Camp 2018 | 2018-08-06 | 2018-08-10 | houghton | n/a | 30.00 |
+----+
1 row in set (0.00 sec)
          Create 2 days 12 sessions, 36 slots
           a. Use procedure addSession, there is a trigger, sessionSlot, that will add 3 slots
             within the time of a session whenever a session is added.
           b.
             mysql> call addSession('2018-08-07', '08:00', 15.0, 1);
             Query OK, 1 row affected (0.01 sec)
             mysql> call addSession('2018-08-07', '08:45', 15.0, 1);
             Query OK, 1 row affected (0.00 sec)
             mysql> call addSession('2018-08-07', '09:30', 15.0, 1);
             Query OK, 1 row affected (0.01 sec)
             mysql> call addSession('2018-08-07', '10:30', 15.0, 1);
             Query OK, 1 row affected (0.01 sec)
             mysql> call addSession('2018-08-07', '11:15', 15.0, 1);
             Query OK, 1 row affected (0.00 sec)
             mysql> call addSession('2018-08-07', '12:00', 15.0, 1);
             Query OK, 1 row affected (0.01 sec)
```

```
mysql> call addSession('2018-08-08', '08:00', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
       mysql> call addSession('2018-08-08', '08:45', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
       mysql> call addSession('2018-08-08', '09:30', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
       mysql> call addSession('2018-08-08', '10:30', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
       mysql> call addSession('2018-08-08', '11:15', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
       mysql> call addSession('2018-08-08', '12:00', 15.0, 1);
       Query OK, 1 row affected (0.00 sec)
    С.
    Before:
       mysql> select * from slot;
       Empty set (0.01 sec)
       mysql> select * from session;
       Empty set (0.01 sec)
    After:
mysql> select * from session;
+----+
+----+
| 25 | 2018-08-07 | 08:00:00 | 08:45:00 | NULL
                                         | 15.00 |
                                                          1 |
| 26 | 2018-08-07 | 08:45:00 | 09:30:00 | NULL
                                        | 15.00 |
                                                          1 |
| 27 | 2018-08-07 | 09:30:00 | 10:15:00 | NULL
                                         | 15.00 |
                                                          1 |
28 | 2018-08-07 | 10:30:00 | 11:15:00 | NULL
                                         | 15.00 |
                                                          1 |
29 | 2018-08-07 | 11:15:00 | 12:00:00 | NULL
                                                          1 |
                                         | 15.00 |
| 30 | 2018-08-07 | 12:00:00 | 12:45:00 | NULL
                                                          1 |
                                         | 15.00 |
31 | 2018-08-08 | 08:00:00 | 08:45:00 | NULL
                                                          1 |
                                         15.00
 32 | 2018-08-08 | 08:45:00 | 09:30:00 | NULL
                                         | 15.00 |
                                                          1 |
| 33 | 2018-08-08 | 09:30:00 | 10:15:00 | NULL
                                         | 15.00 |
                                                          1 |
| 34 | 2018-08-08 | 10:30:00 | 11:15:00 | NULL
                                         15.00
                                                          1 |
| 35 | 2018-08-08 | 11:15:00 | 12:00:00 | NULL
                                         15.00
                                                          1 |
| 36 | 2018-08-08 | 12:00:00 | 12:45:00 | NULL
                                       | 15.00 |
+----+
12 rows in set (0.01 sec)
```

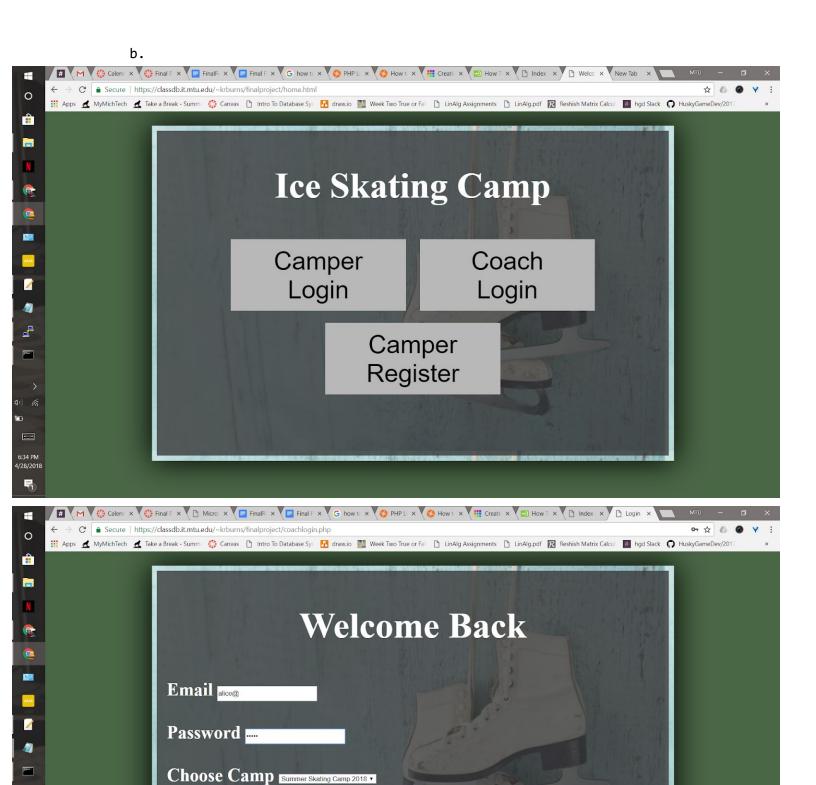
mysql>

mysql> select * from slot;

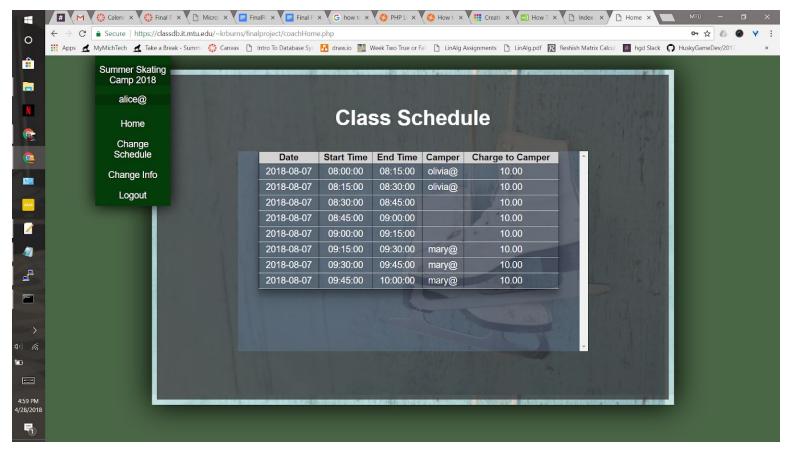
+	+	+	+		+	++
date	start	end	num	coach_email	camper_email	camp_number
+	+ 08:00:00	+ 08:15:00	+ 25	+ NULL	+ NULL	++ 1
2018-08-07	08:15:00	08:30:00	25	NULL	NULL NULL	ı <u>+</u> ı I 1 l
2018-08-07	08:30:00	08:45:00	25	NULL	NULL	ı <u>+</u> ı I 1 I
2018-08-07	08:45:00	09:00:00	26	NULL	NULL	l 1
2018-08-07	09:00:00	09:15:00	26	NULL	NULL	
2018-08-07	09:15:00	09:30:00	26	NULL	NULL	
2018-08-07	09:30:00	09:45:00	27	NULL	NULL	, <u>-</u> , 1
2018-08-07	09:45:00	10:00:00	27	NULL	NULL	1
2018-08-07	10:00:00	10:15:00	27	NULL	NULL	1
2018-08-07	10:30:00	10:45:00	28	NULL	NULL	1
2018-08-07	10:45:00	11:00:00	28	NULL	NULL	1
2018-08-07	11:00:00	11:15:00	28	NULL	NULL	1
2018-08-07	11:15:00	11:30:00	29	NULL	NULL	1
2018-08-07	11:30:00	11:45:00	29	NULL	NULL	1
2018-08-07	11:45:00	12:00:00	29	NULL	NULL	1
2018-08-07	12:00:00	12:15:00	30	NULL	NULL	1
2018-08-07	12:15:00	12:30:00	30	NULL	NULL	1
2018-08-07	12:30:00	12:45:00	30	NULL	NULL	1
2018-08-08	08:00:00	08:15:00	31	NULL	NULL	1
2018-08-08	08:15:00	08:30:00	31	NULL	NULL	1
2018-08-08	08:30:00	08:45:00	31	NULL	NULL	1
2018-08-08	08:45:00	09:00:00	32	NULL	NULL	1
2018-08-08	09:00:00	09:15:00	32	NULL	NULL	1
2018-08-08	09:15:00	09:30:00	32	NULL	NULL	1
2018-08-08	09:30:00	09:45:00	33	NULL	NULL	1
2018-08-08	09:45:00	10:00:00	33	NULL	NULL	1
2018-08-08	10:00:00	10:15:00	33	NULL	NULL	1
2018-08-08	10:30:00	10:45:00	34	NULL	NULL	1
2018-08-08	10:45:00	11:00:00	34	NULL	NULL	1
2018-08-08	11:00:00	11:15:00	34	NULL	NULL	1
2018-08-08	11:15:00	11:30:00	35	NULL	NULL	1
2018-08-08	11:30:00	11:45:00	35	NULL	NULL	1
2018-08-08	11:45:00	12:00:00	35	NULL	NULL	1
2018-08-08	12:00:00	12:15:00	36	NULL	NULL	1
2018-08-08	12:15:00	12:30:00	36	NULL	NULL	1
2018-08-08	12:30:00	12:45:00	36	NULL	NULL	1
+	+	+	+	·	+	++

36 rows in set (0.01 sec)

- 4. Have Alice login to the system with password
 - a. Click thee coah login button. Alice's email is alice@ and her password is alice. You put these in the page and hit the login button.



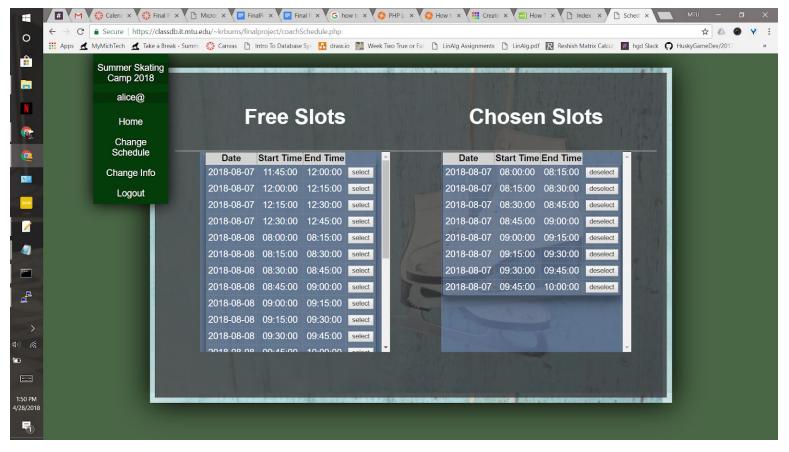
Login



с.

- 5. Take the Summer18 Camp, show the ice slots and decide if he/she will offer lesson in that slot.
 - a. When you log in to the site you choose what camp to log in with. The ability to change your schedule is on the change Schedule page, press the select button by a time slot to choose it, and the deselect button to un-choose it.

b.



с.

Before selecting:

mysql> select * from slot where coach_email='alice@'; Empty set (0.01 sec)

After selecting:

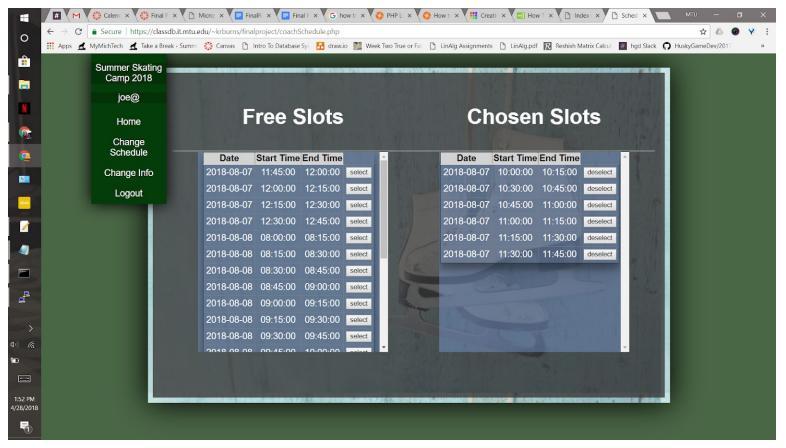
mysql> select * from slot where coach_email='alice@';

		•	•	_	camper_email	= .
+	08:00:00 08:15:00 08:30:00 08:45:00 09:00:00 09:15:00	08:15:00 08:30:00 08:45:00 09:00:00 09:15:00 09:30:00 09:45:00	25 25 25 26 26 26	alice@ alice@ alice@ alice@ alice@ alice@	F NULL NULL NULL NULL NULL NULL	+

8 rows in set (0.01 sec)

- 6. Do the same for coach Joe
 - a. When you log in to the site you choose what camp to log in with. The ability to change your schedule is on the change Schedule page, press the select button by a time slot to choose it, and the deselect button to un-choose it.

b.



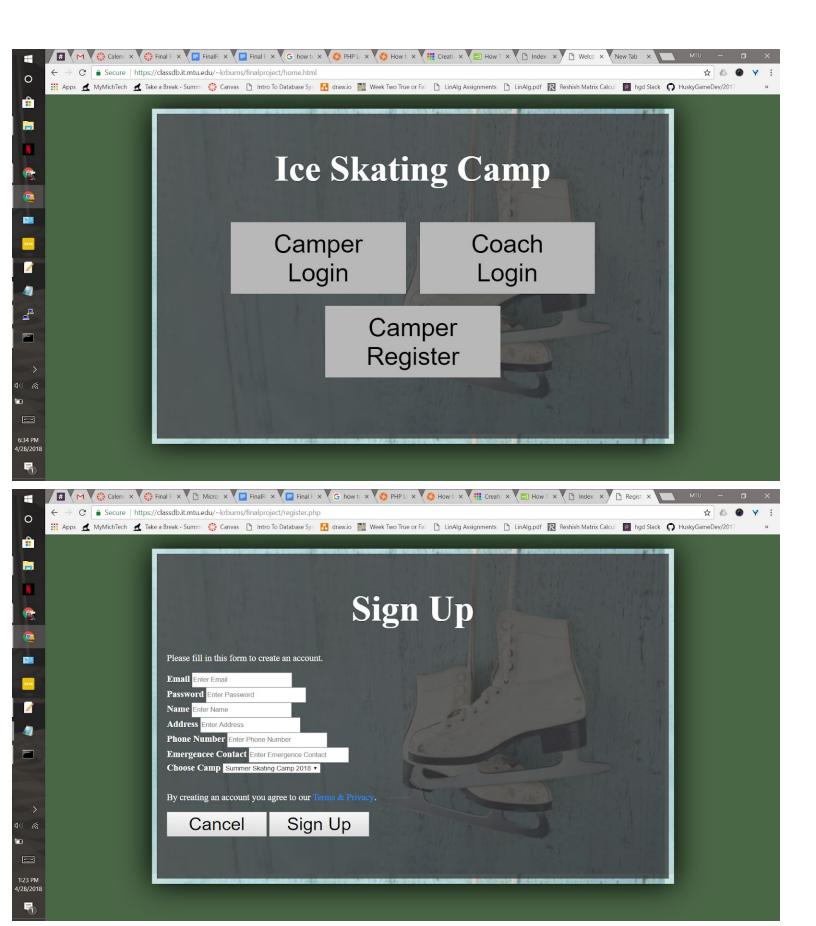
c.
Before selecting:
 mysql> select * from slot where coach_email='joe@';
 Empty set (0.01 sec)

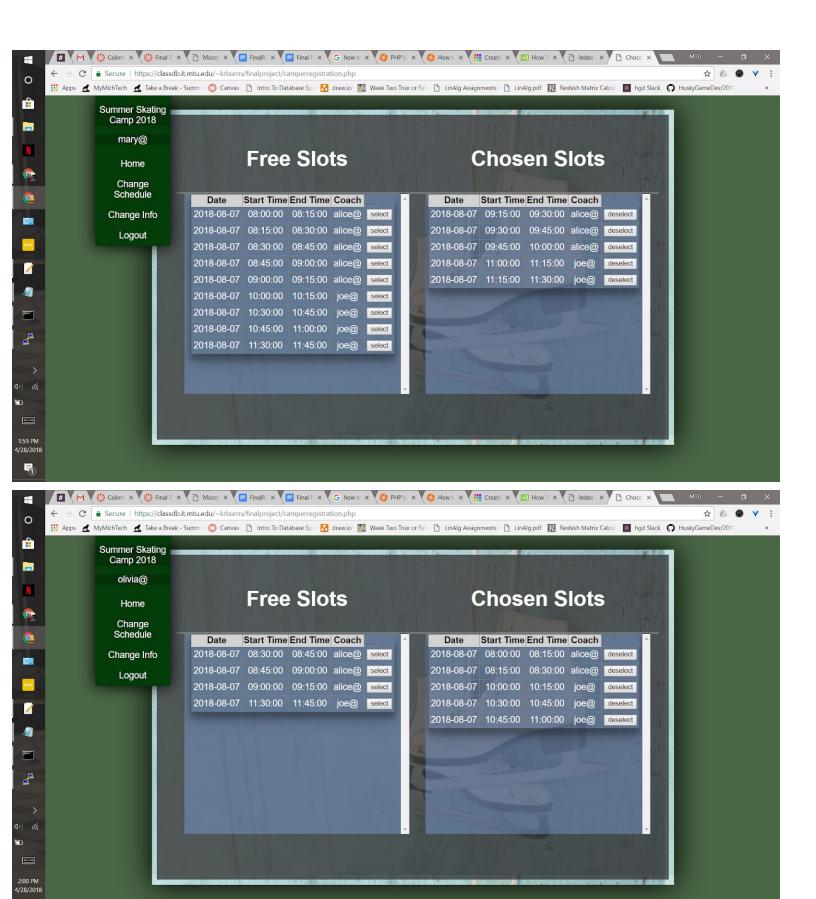
After selecting:

mysql> select * from slot where coach_email='joe@';

date	start	end	num	coach_email	+ camper_email +	camp_number
2018-08-07 2018-08-07 2018-08-07 2018-08-07 2018-08-07 2018-08-07	10:00:00 10:30:00 10:45:00 11:00:00 11:15:00	10:15:00 10:45:00 11:00:00 11:15:00 11:30:00	27 28 28 28 29	joe@	NULL NULL NULL NULL NULL NULL	1 1 1 1 1 1 1

- 6 rows in set (0.00 sec)
 - 7. Have two campers Mary and Olivia to register and choose 5 lessons from Alice and Joe
 - a. Click the camper register button on the home screen. After you put all of your info in the form and hit the sign up button you will be redirected to the home screen. Click camper login and sign in with the email and password you just registered with. On the camper home page the email of the person currently signed in is displayed in the top left area.





c.
Before Register:
 mysql> select * from camper;
 Empty set (0.00 sec)

=

After Register:

mysql> select * from camper;

name	email	password	address	phone	+ emergency_contact +	camp_number
mary olivia	mary@ olivia@	mary olivia	addr addr	1 9	2	1

2 rows in set (0.01 sec)

Before picking slots:

mysql> select * from slot where camper_email is not null; Empty set (0.00 sec)

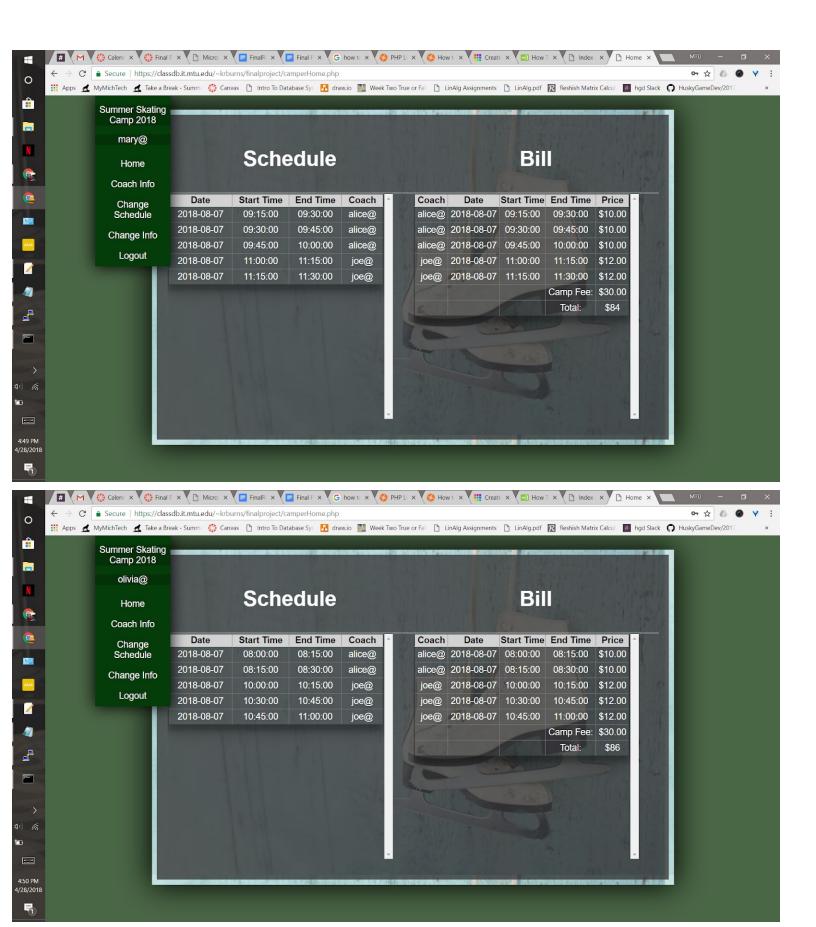
After picking slots:

mysql> select * from slot where camper_email is not null;

date	start	 end	+ num	coach_email	+ camper_email	+ camp_number
2018-08-07	08:00:00	08:15:00	25	alice@	olivia@	1
2018-08-07	08:15:00	08:30:00	25	alice@	olivia@	1
2018-08-07	09:15:00	09:30:00	26	alice@	mary@	1
2018-08-07	09:30:00	09:45:00	27	alice@	mary@	1
2018-08-07	09:45:00	10:00:00	27	alice@	mary@	1
2018-08-07	10:00:00	10:15:00	27	joe@	olivia@	1
2018-08-07	10:30:00	10:45:00	28	joe@	olivia@	1
2018-08-07	10:45:00	11:00:00	28	joe@	olivia@	1
2018-08-07	11:00:00	11:15:00	28	joe@	mary@	1
2018-08-07	11:15:00	11:30:00	29	joe@	mary@	1
+			+		+	+

10 rows in set (0.00 sec)

- 8. Show Mary, Olivia's schedule and bills
 - a. When a camper logs in their schedule and bill are displayed on the home page b.



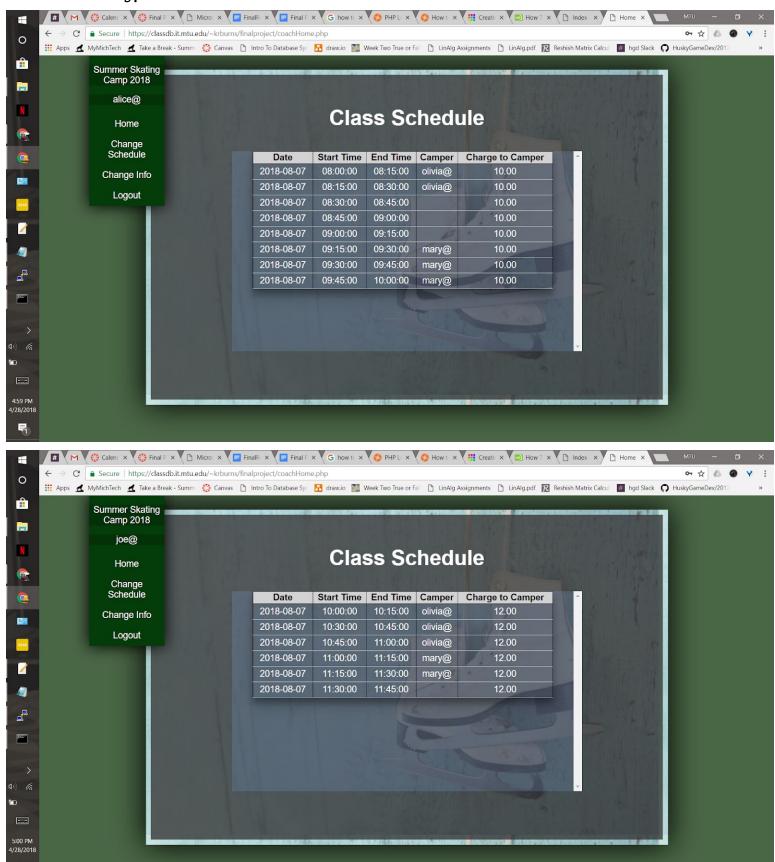
c. For Mary:

mysql> select coach_email, date, start, end, price from slot join coach on (
slot.coach_email = coach.email) where camper_email='mary@';

```
+-----
    | coach email | date | start
                                 end
    +----+
              | 2018-08-07 | 09:15:00 | 09:30:00 | 10.00 |
    | alice@
              | 2018-08-07 | 09:30:00 | 09:45:00 | 10.00 |
    | alice@
              | 2018-08-07 | 09:45:00 | 10:00:00 | 10.00 |
    | alice@
              | 2018-08-07 | 11:00:00 | 11:15:00 | 12.00 |
    l joe@
             | 2018-08-07 | 11:15:00 | 11:30:00 | 12.00 |
    | joe@
    +----+
    5 rows in set (0.00 sec)
    mysql> select sum(price )from slot join coach on ( slot.coach_email =
    coach.email) where camper_email='mary@';
    +----+
    | sum(price ) |
    +----+
         54.00
    +----+
    1 row in set (0.00 sec)
For Olivia:
    mysql> select coach_email, date, start, end, price from slot join coach on (
    slot.coach_email = coach.email) where camper_email='olivia@';
    +----+
    | coach email | date | start
                                 end
                                        | price |
    +----+
    | alice@
              | 2018-08-07 | 08:00:00 | 08:15:00 | 10.00 |
             | 2018-08-07 | 08:15:00 | 08:30:00 | 10.00 |
    | alice@
              | 2018-08-07 | 10:00:00 | 10:15:00 | 12.00 |
    | joe@
    | joe@
              | 2018-08-07 | 10:30:00 | 10:45:00 | 12.00 |
             | 2018-08-07 | 10:45:00 | 11:00:00 | 12.00 |
    l joe@
    +----+
    5 rows in set (0.00 sec)
    mysql> select sum(price )from slot join coach on ( slot.coach_email =
    coach.email) where camper_email='olivia@';
    +----+
    | sum(price ) |
    +----+
         56.00
    +----+
    1 row in set (0.00 sec)
```

- 9. Show Alice and Joe's lesson schedule and charges to each student
 - a. On the coaches homepage their schedule includes how much they charge to each camper per session. The camper column is blank where no one has signed up yet to attend the class.

b.



-

mysql> select date, start, end, camper_email, price from slot join coach on(
slot.coach_email = coach.email) where coach_email = 'alice@';

+		L		
•	•		camper_email	
T				
2018-08-07	08:00:00	08:15:00	olivia@	10.00
2018-08-07	08:15:00	08:30:00	olivia@	10.00
2018-08-07	08:30:00	08:45:00	NULL	10.00
2018-08-07	08:45:00	09:00:00	NULL	10.00
2018-08-07	09:00:00	09:15:00	NULL	10.00
2018-08-07	09:15:00	09:30:00	mary@	10.00
2018-08-07	09:30:00	09:45:00	mary@	10.00
2018-08-07	09:45:00	10:00:00	mary@	10.00
+	· }	· }	 	

8 rows in set (0.00 sec)

mysql> select date, start, end, camper_email, price from slot join coach on(
slot.coach_email = coach.email) where coach_email = 'joe@';

+	+			
date	start	end	camper_email	price
•				•
2018-08-07	10:00:00	10:15:00	olivia@	12.00
2018-08-07	10:30:00	10:45:00	l olivia@	12.00
•	•			
2018-08-07	10:45:00	11:00:00	olivia@	12.00
2018-08-07	11:00:00	11:15:00	mary@	12.00
2018-08-07	11:15:00	11:30:00	marv@	12.00
•	•	11:45:00		12.00
2010-00-07	1 11.50.00	1 11.43.00	INOLL	1 12.00
+	+			

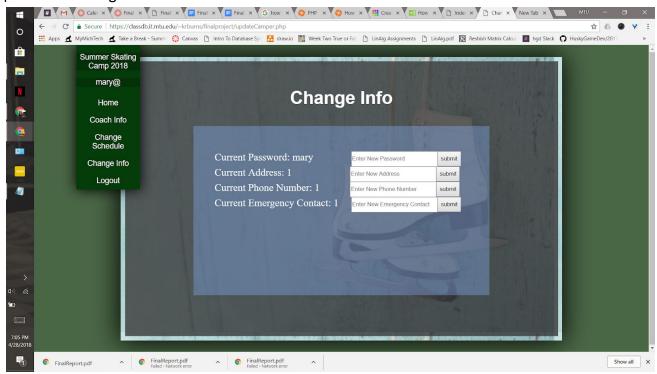
6 rows in set (0.00 sec)

Other Stuff:

Campers can view some of the coaches info so that they can decide which one they want.



Campers can change some of their information:



Coaches can change some of their information:

