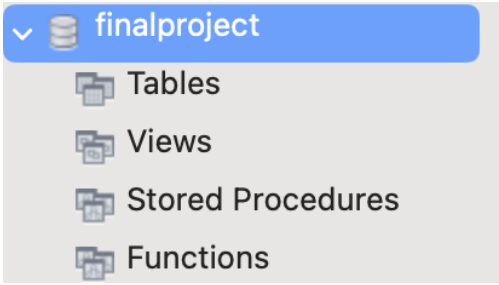
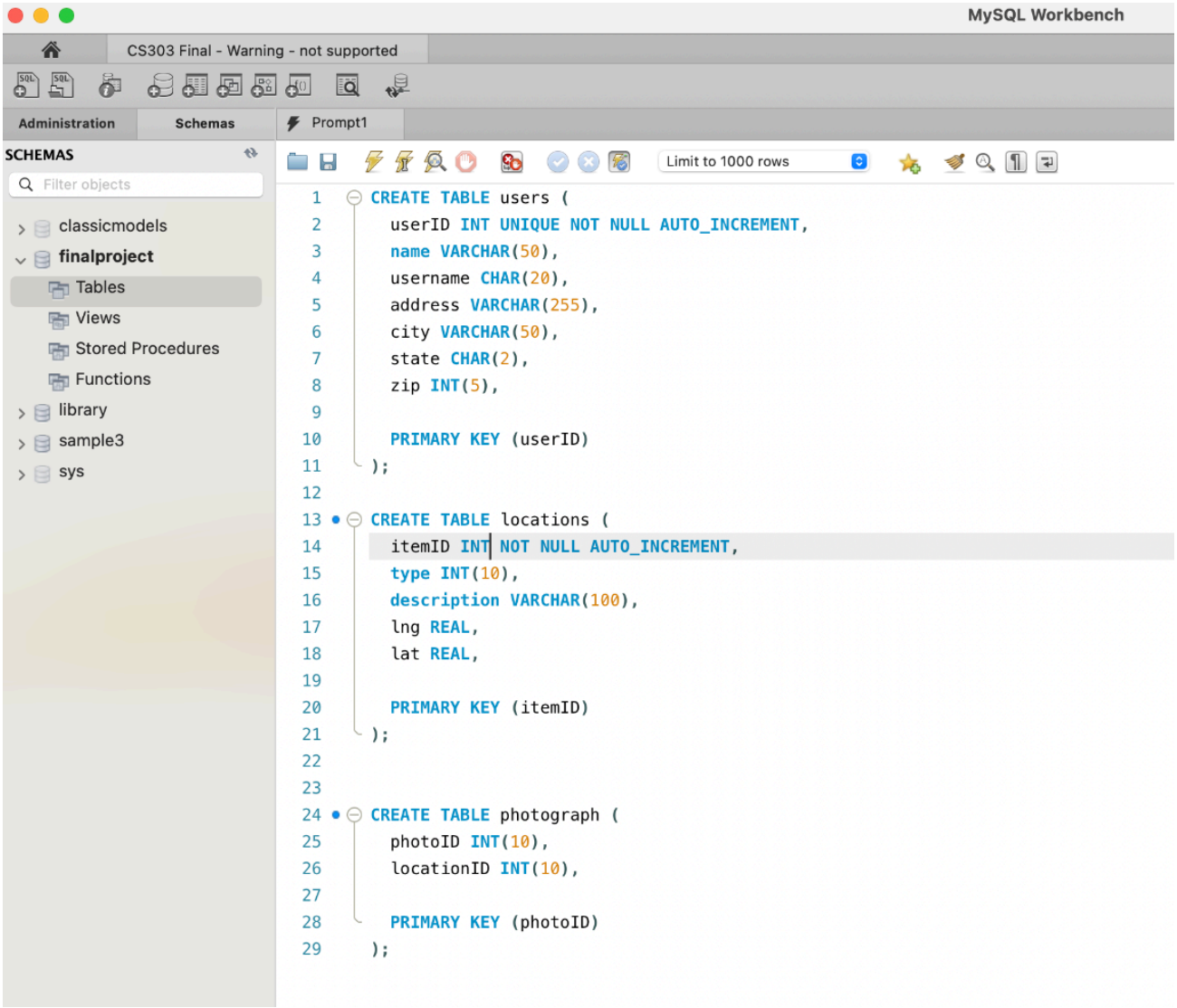
MICHAEL DIAZ
COMPUTER SCIENCE 303 - ASSIGNMENT 1
JANUARY 15TH. 2023
STUDY.COM

PROMPT 1 - Create the Schema/Database



PROMPT 2 - Create Tables

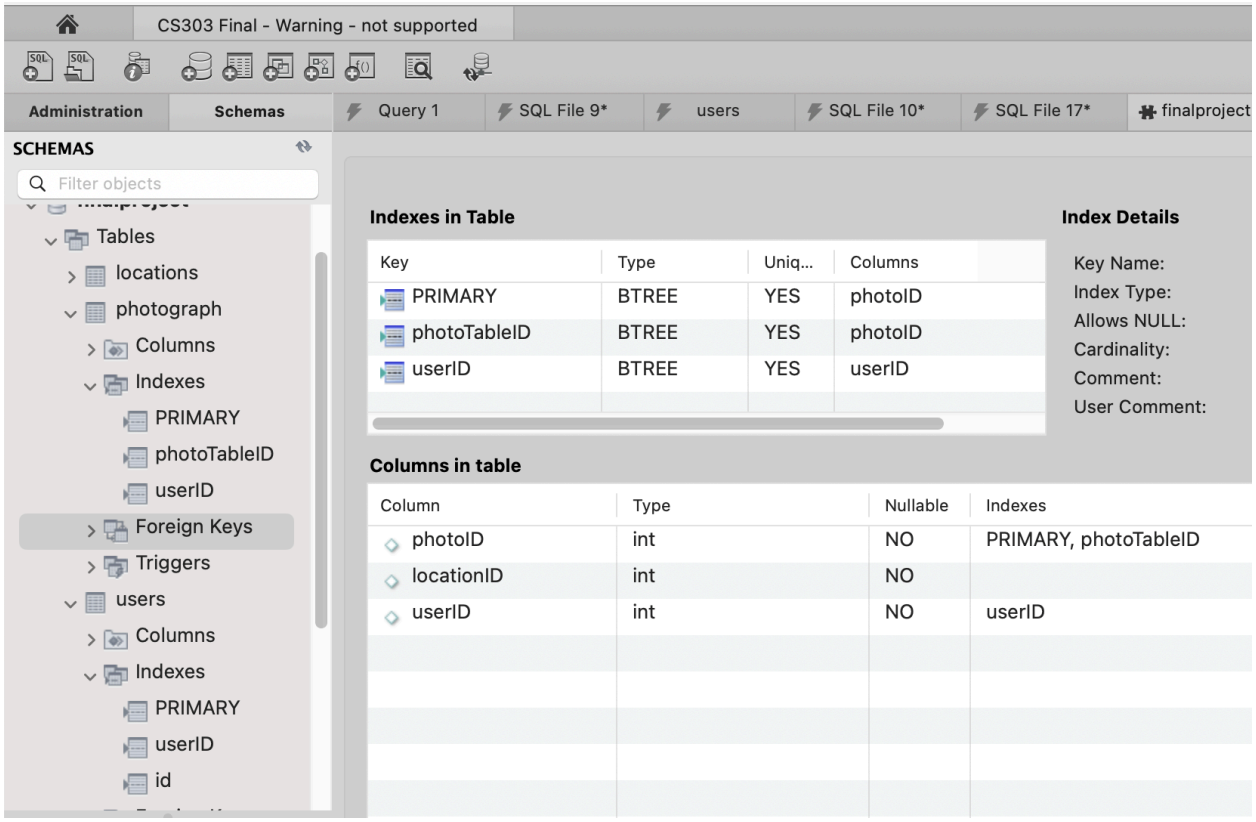


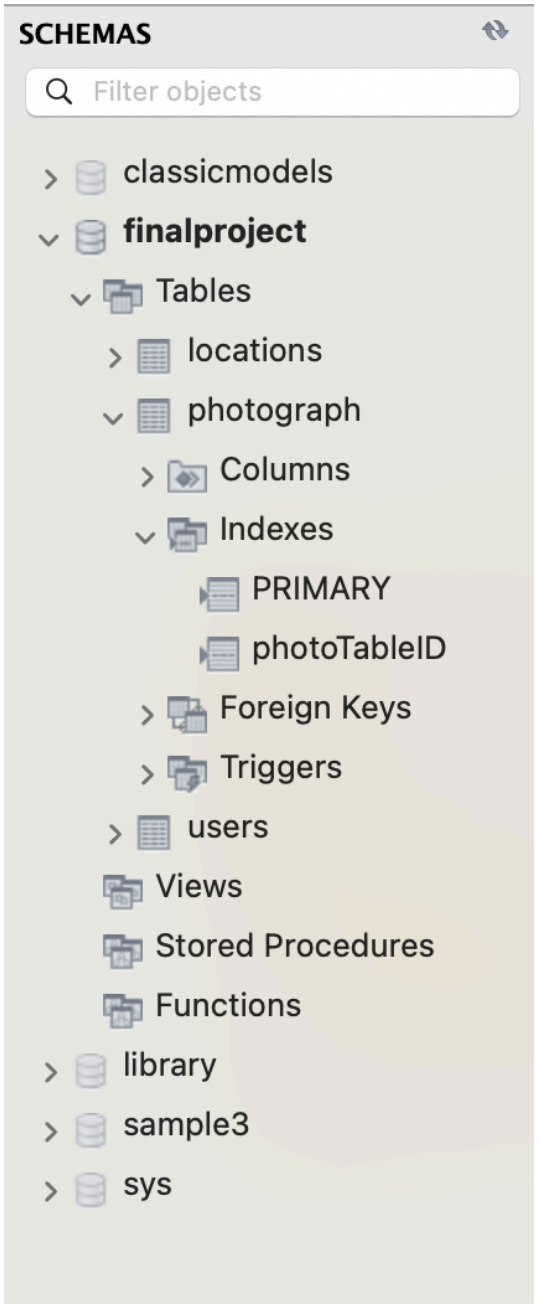
PROMPT 3 - Alter Tables

```
ALTER TABLE locations
MODIFY type INT(10) NOT NULL,
MODIFY description VARCHAR(100) NOT NULL,
MODIFY lng REAL NOT NULL,
MODIFY lat REAL NOT NULL;


ALTER TABLE users
MODIFY name VARCHAR(50) NOT NULL,
MODIFY username CHAR(20) NOT NULL;


ALTER TABLE photograph
MODIFY photoID INT(10) NOT NULL,
MODIFY locationID INT(10) NOT NULL;
```

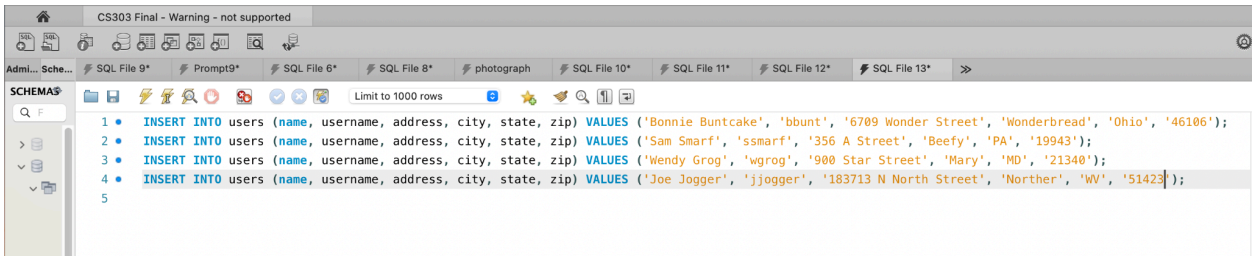
PROMPT 4 - Create Index

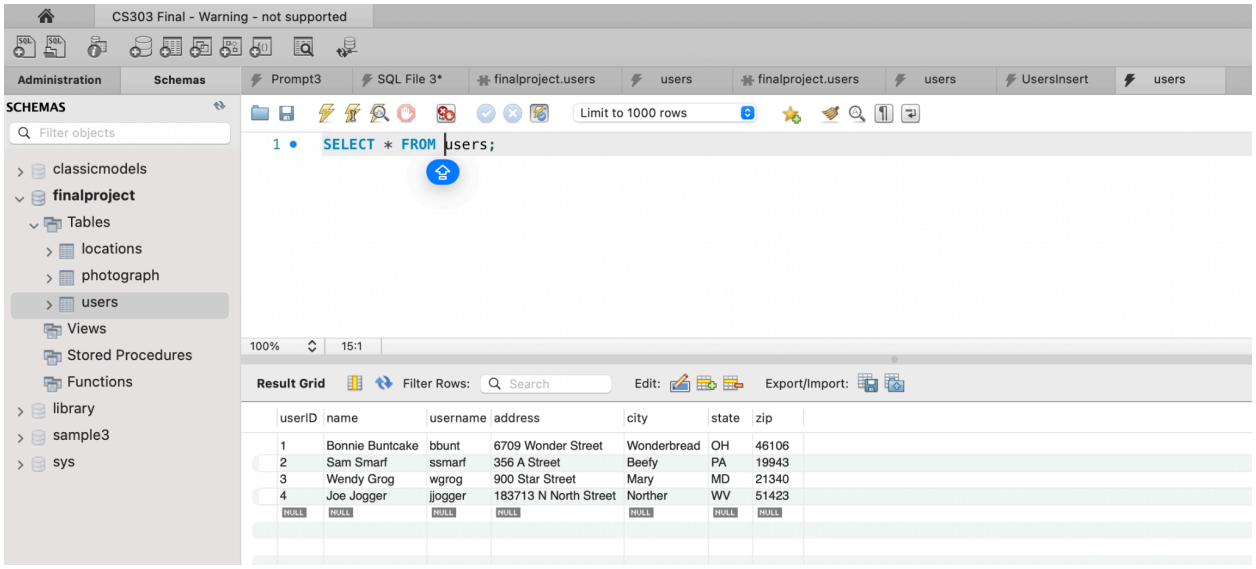
```
CREATE UNIQUE INDEX id ON users (userid);
CREATE UNIQUE INDEX photoTableID ON photograph (photoID);
```


CS303 Final - Warning - not supported
Administration
Schemas
Query 1
SQL File 9*
users
SQL File 10*
SQL File 17*
finalproject
SCHEMAS
Filter objects
Tables
locations
photograph
Columns
Indexes
PRIMARY
photoTableID
userID
Foreign Keys
Triggers
users
Columns
Indexes
PRIMARY
userID
id
Indexes in Table
Key
Type
Uniq...
Columns
PRIMARY
BTREE
YES
photoID
photoTableID
BTREE
YES
photoID
userID
BTREE
YES
userID
Index Details
Key Name:
Index Type:
Allows NULL:
Cardinality:
Comment:
User Comment:
Columns in table
Column
Type
Nullable
Indexes
photoID
int
NO
PRIMARY, photoTableID
locationID
int
NO
userID
int
NO
userID

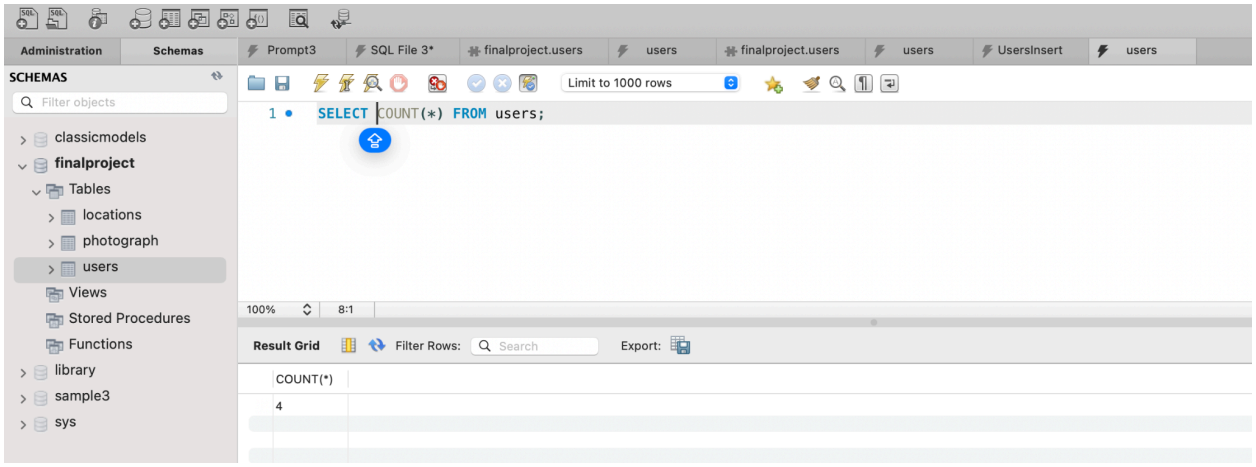

SCHEMAS
Filter objects
classicmodels
finalproject
Tables
locations
photograph
Columns
Indexes
PRIMARY
photoTableID
Foreign Keys
Triggers
users
Views
Stored Procedures
Functions
library
sample3
sys

PROMPT 5 - Enter Data



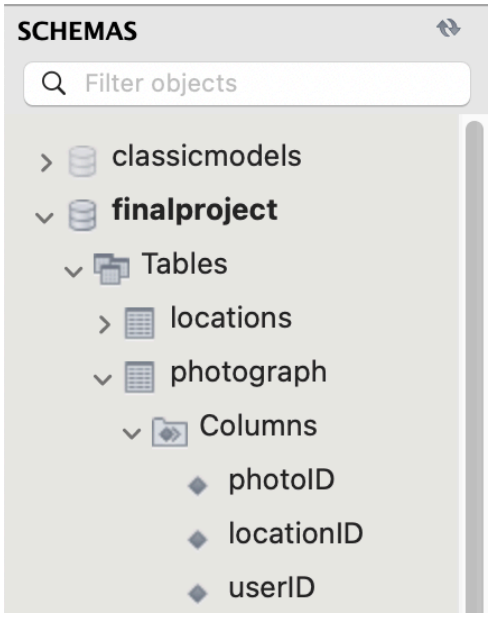


PROMPT 6 - Count Rows



PROMPT 7 - Add Column

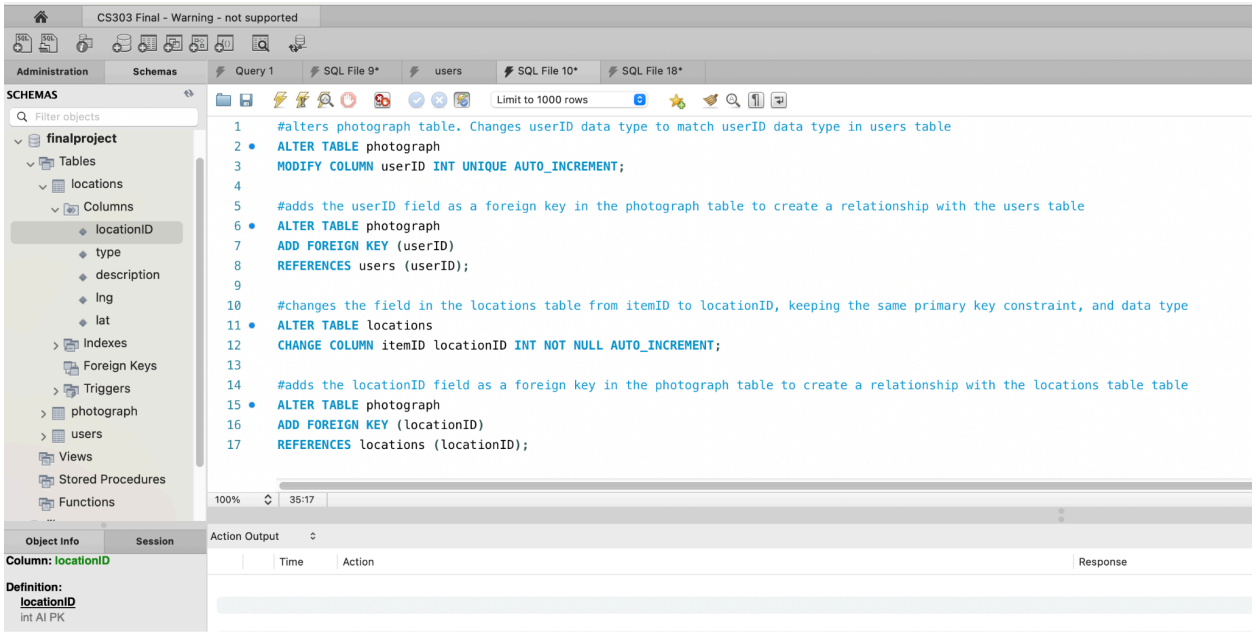
ALTER TABLE photograph ADD COLUMN userID VARCHAR(20) AFTER locationID;



PROMPT 8 - Issue with New Column

The locations table and the photograph tables need to have a relationship in order to ensure we can find the location of where the photo was shot. We first need to alter the primary key of the locations table to an ID which suits the table better than ‘itemID.’ Since the photograph table already has a field named locationID, it would be best to change ‘itemID’ in the locations table to ‘locationID,’ then we should create a relationship between both tables by making locationID a primary key in the locations table, and a foreign key in the photograph table.

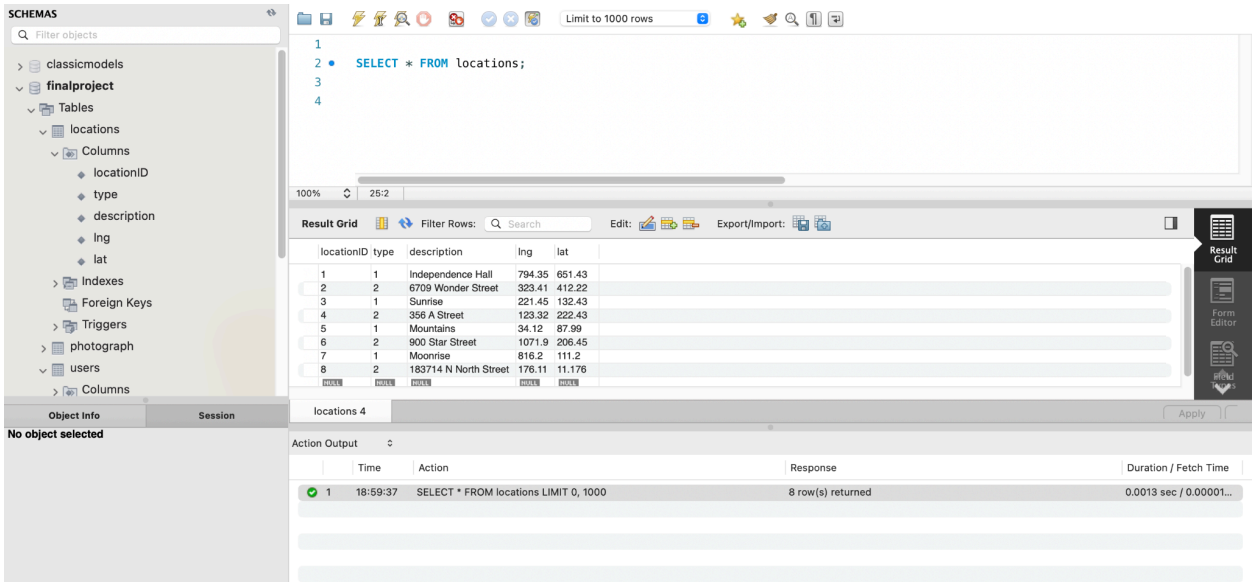
Also, the userID fields in the photograph table and users table do not have a relationship. The userID field in the photograph table needs to be a foreign key in the photograph table, referencing the primary key ‘userID’ from the users table. To do so, we will need to alter the table and ensure the data types between ‘userID’ in both tables are the same to allow the relationship. Next we need to alter the photograph table to create the relationship by making the userID column in the photograph table a foreign key, referencing the userID primary key in the users table.



PROMPT 9 - Location and Photograph Table Updates

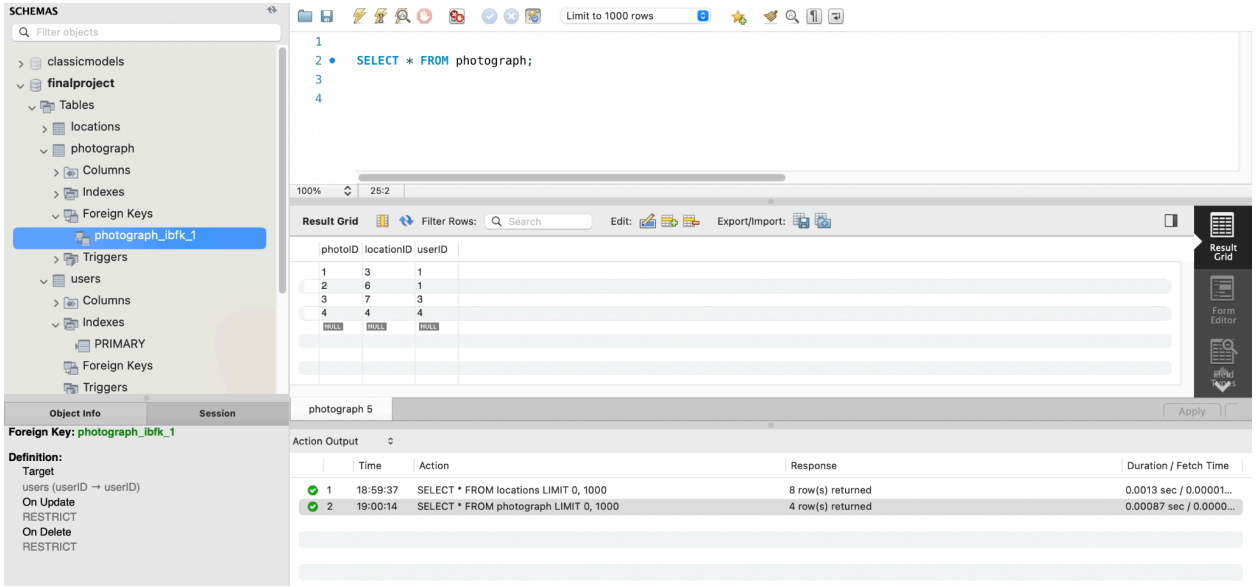
```
# inserts data into locations table
INSERT INTO locations (type, description, lng, lat)
VALUES
        ('1', 'Independence Hall', '794.35', '651.43'),
        ('2', '6709 Wonder Street', '323.41', '412.22'),
        ('1', 'Sunrise', '221.45', '132.43'),
        ('2', '356 A Street', '123.32', '222.43'),
        ('1', 'Mountains', '34.12', '87.99'),
        ('2', '900 Star Street', '1071.9', '206.45'),
        ('1', 'Moonrise', '816.2', '111.2'),
        ('2', '183714 N North Street', '176.11', '11.176');
```

Data in locations table after insert:

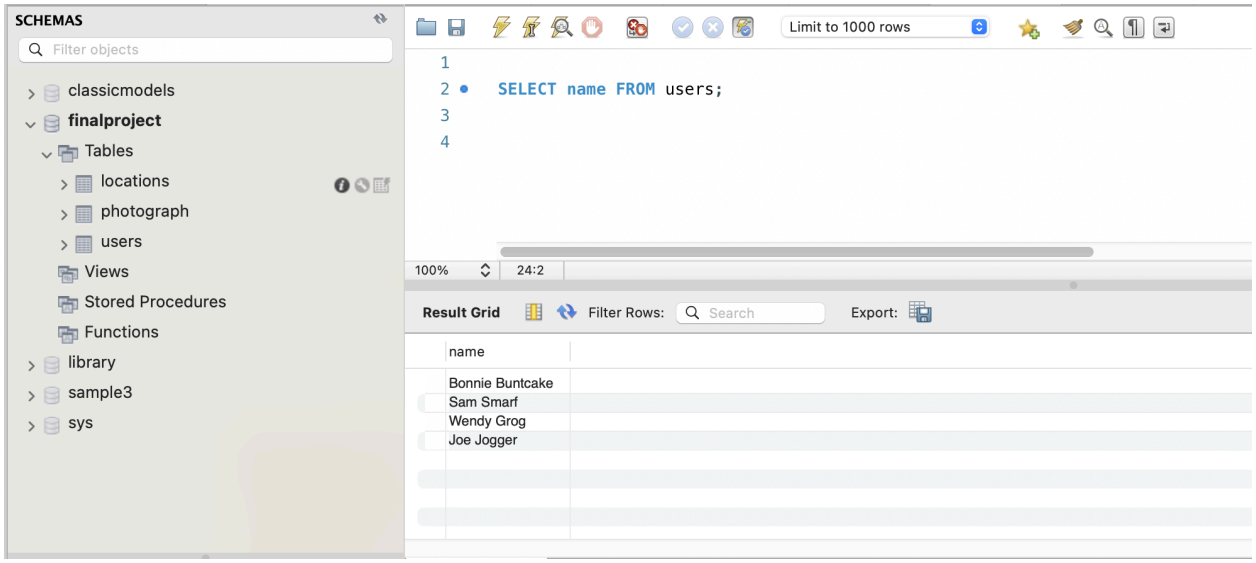


inserts data into photograph table
INSERT INTO photograph (photoID, locationID, userID) VALUES (1, 3, 1);
INSERT INTO photograph (photoID, locationID, userID) VALUES (2, 6, 1);
INSERT INTO photograph (photoID, locationID, userID) VALUES (3, 7, 3);
INSERT INTO photograph (photoID, locationID, userID) VALUES (4, 4, 4);

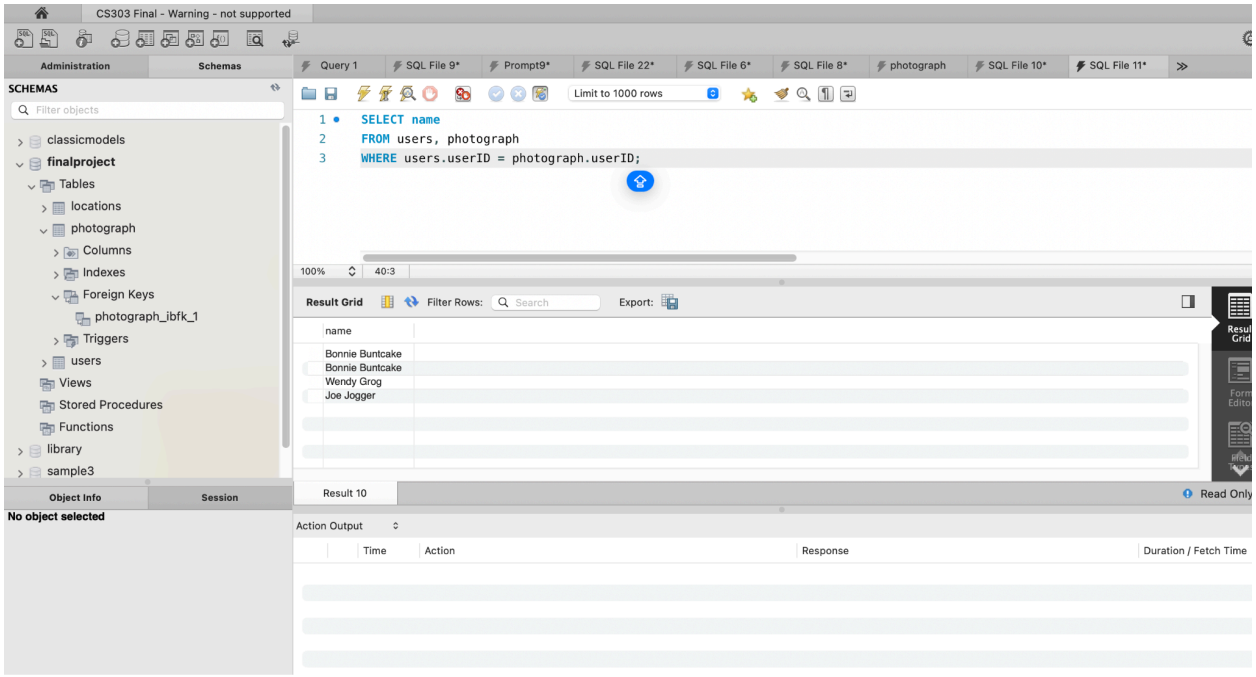
Data in photograph table after insert:



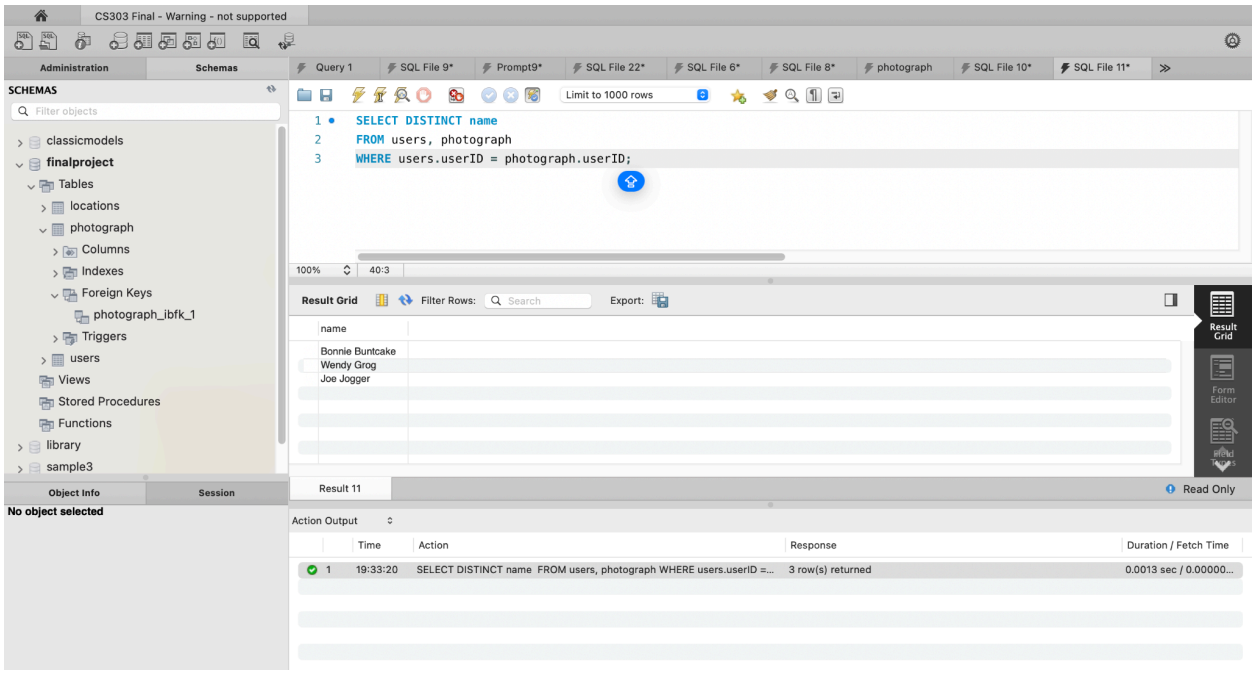
PROMPT 10 - Users



PROMPT 11 - Who's taking pictures?



PROMPT 12 - Unique Names


CS303 Final - Warning - not supported
Administration
Schemas
SCHEMAS
Filter objects
classicmodels
finalproject
Tables
locations
photograph
Columns
Indexes
Foreign Keys
photograph_ibfk_1
Triggers
users
Views
Stored Procedures
Functions
library
sample3
Object Info
Session
No object selected
Query 1
SQL File 9*
Prompt9*
SQL File 22*
SQL File 6*
SQL File 8*
photograph
SQL File 10*
SQL File 11*
Limit to 1000 rows
1 SELECT DISTINCT name
2 FROM users, photograph
3 WHERE users.userID = photograph.userID;
100%
40:3
Result Grid
Filter Rows:
Search
Export:
name
Bonnie Buntcake
Wendy Grog
Joe Jogger
Result Grid
Form Editor
Result 11
Read Only
Action Output
Time
Action
Response
Duration / Fetch Time
1
19:33:20
SELECT DISTINCT name FROM users, photograph WHERE users.userID =...
3 row(s) returned
0.0013 sec / 0.00000...