# **CPSC 304 Project Cover Page**

Milestone #: 4

Date: December 1, 2023

Group Number: 128

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

#### **Project Description**

For our project, we have created a platform to manage events. The main relationship is between events and the venue that it will be hosted. The user will be able to perform operations on the data to access important information like how many total people can attend an event across all the venues that the event is performed in. There is also data about merchandisers, and staff at all events so that managers can easily see who will be working and what will be sold at each event and venue.

Our final schema has minor changes. We changed the type of the time column in event to be a string instead of a date time, and we changed the primary key of the venue to just be the name.

#### Schema

#### **Entities**

Guest(

Email: VARCHAR, Name: VARCHAR, ticket #: INTEGER, phone #: INTEGER)

#### Event(

Time: VARCHAR, event ID: INTEGER, Name: VARCHAR, Description: TEXT)

#### Staff(

Role: VARCHAR, Email: VARCHAR, Name: VARCHAR, staff ID: INTEGER, phone #: INTEGER)

#### Department(

Name: VARCHAR, Description: TEXT, **event ID**: INTEGER)

#### Sponsor(

sponsor name: VARCHAR,

Amount: DOUBLE, Request: TEXT,

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```
phone #: INTEGER,
      Email: VARCHAR)
Performer(
      Agent: VARCHAR,
      Name: VARCHAR,
      phone #: INTEGER,
      Email: VARCHAR)
Venue(
      Name: VARCHAR,
      Address: VARCHAR,
      Capacity: INTEGER,
      event ID: INTEGER)
Vendor(
      vendor name: VARCHAR,
      Location: VARCHAR,
      Hours: INTEGER)
Food Vendor(
      vendor name: VARCHAR,
      alcohol license number: INTEGER,
      Style: VARCHAR)
Merchandise Vendor(
      vendor name: VARCHAR,
      brands carried: TEXT)
```

# **SQL Scripts**

```
CREATE TABLE Guest (

guest_name VARCHAR2(255),
email VARCHAR2(255),
ticket_number INTEGER,
phone_number INTEGER,
PRIMARY KEY (guest_name, ticket_number)

);

CREATE TABLE Staff (

staff_id INTEGER,
staff_role VARCHAR2(255), -- Assuming VARCHAR2 for role
email VARCHAR2(255),
```

```
CREATE TABLE Sponsor (
);
CREATE TABLE Performer (
CREATE TABLE Event (
                      event name VARCHAR2 (255),
CREATE TABLE Department (
                           PRIMARY KEY (dept name, event id),
                      ON DELETE CASCADE
```

```
Vendor(vendor name)
                                   brands carried VARCHAR2 (255),
Vendor(vendor name)
INSERT INTO Guest (guest name, email, ticket number, phone number)
INSERT INTO Guest (guest name, email, ticket number, phone number)
VALUES ('Michael Cui', 'michael.cui@gmail.com', 1002, 123456789);
INSERT INTO Guest (guest name, email, ticket number, phone number)
VALUES('Kaiser Ninomiya', 'kaiser.ninomiya@gmail.com', 1003, 123456789);
INSERT INTO Guest (guest name, email, ticket number, phone number)
VALUES('Jason Zhu', 'jason.zhu@gmail.com', 1004, 123456789);
INSERT INTO Guest (guest name, email, ticket number, phone number)
VALUES('Stephen Qiao', 'stephen.qiao@gmail.com', 1005, 123456789);
INSERT INTO Staff (staff id, name, email, phone number, staff role)
VALUES (1, 'Leo Wang', 'leo.wang@gmail.com', 123456789, 'Manager');
INSERT INTO Staff (staff id, name, email, phone number, staff role)
VALUES(2, 'Michael Cui', 'michael.cui@gmail.com', 123456789, 'Supervisor');
INSERT INTO Staff (staff id, name, email, phone number, staff role)
'Technician');
INSERT INTO Staff (staff id, name, email, phone number, staff role)
VALUES(4, 'Jason Zhu', 'jason.zhu@gmail.com', 123456789, 'Coordinator');
INSERT INTO Staff (staff id, name, email, phone number, staff role)
```

```
Staff');
INSERT INTO Sponsor (sponsor name, amount, request, phone number, email)
INSERT INTO Sponsor (sponsor name, amount, request, phone number, email)
INSERT INTO Sponsor (sponsor_name, amount, request, phone_number, email)
INSERT INTO Sponsor (sponsor name, amount, request, phone number, email)
INSERT INTO Sponsor (sponsor name, amount, request, phone number, email)
VALUES('Alibaba', 8000, 'Advertisement', 123456789, 'alibaba@gmail.com');
INSERT INTO Performer (performer name, agent, phone number, email)
VALUES('NBA Youngboy', 'Rich Paul', 123456789,
'youngboyneverbrokeagain@gmail.com');
INSERT INTO Performer (performer name, agent, phone number, email)
VALUES('Drake', 'Chubbs', 123456789, 'aubreygraham@gmail.com');
INSERT INTO Performer (performer name, agent, phone number, email)
VALUES('Travis Scott', 'Kylie Jenner', 123456789, 'tscott@gmail.com');
INSERT INTO Performer (performer name, agent, phone number, email)
VALUES('Kanye West', 'Pete Davidson', 123456789, 'ye@gmail.com');
INSERT INTO Performer (performer_name, agent, phone_number, email)
VALUES('Taylor Swift', 'Katy Perry', 123456789, 'taylorswift@gmail.com');
INSERT INTO Event (event time, event id, event name, event description)
VALUES('2023-11-01 08:00:00', 1, 'NBA Youngboy Concert', 'Concert for rapper
NBA Youngboy ');
INSERT INTO Event (event time, event id, event name, event description)
VALUES('2023-11-02 18:00:00', 2, 'NBA game', 'Golden State Warriors vs. Toronto
INSERT INTO Event (event time, event id, event name, event description)
VALUES('2023-11-03 20:00:00', 3, 'NHL game', 'Toronto Maple Leafs vs. Calgary
INSERT INTO Event (event time, event id, event name, event description)
VALUES('2023-11-04 14:00:00', 4, 'Drake Concert', 'live performance by the 6ix
god');
INSERT INTO Event (event time, event id, event name, event description)
VALUES('2023-11-05 12:00:00', 5, 'WNBA game', 'New York Liberty vs. Las Vegas
Aces');
INSERT INTO Department (dept name, dept description, event id)
VALUES('Tech', 'Controls event technology', 1);
INSERT INTO Department (dept name, dept description, event id)
VALUES('Food', 'Manages food sellers at event', 2);
```

```
INSERT INTO Department (dept name, dept description, event id)
VALUES('Lights', 'Controls Lighting at event', 3);
INSERT INTO Department (dept name, dept description, event id)
INSERT INTO Department (dept name, dept description, event id)
VALUES('Bookings', 'Manages bookings', 5);
INSERT INTO Venue (venue name, venue address, venue capacity, event id)
VALUES('Apple', '123 Granville Street', 500, 1);
INSERT INTO Venue (venue name, venue address, venue capacity, event id)
VALUES('McDonald's', '456 Burrard Avenue', 800, 2);
INSERT INTO Venue (venue name, venue address, venue capacity, event id)
VALUES('Nike', '789 University Blvd', 600, 3);
INSERT INTO Venue (venue name, venue address, venue capacity, event id)
VALUES('Auto Group', '101 Student Union Blvd', 1000, 4);
INSERT INTO Venue (venue name, venue address, venue capacity, event id)
VALUES('Merch Store', '202 Lougheed Circle', 1500, 5);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderA', 'North Side', 8);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderB', 'East Side', 6);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderC', 'West Side', 7);
INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
VALUES('VenderD', 'South Side', 5);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderE', 'Central Area', 10);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderF', 'Central Area', 10);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderG', 'Central Area', 10);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderH', 'Central Area', 10);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderI', 'Central Area', 10);
INSERT INTO Vendor (vendor name, vendor location, vendor hours)
VALUES('VenderJ', 'Central Area', 10);
INSERT INTO Food Vendor (vendor name, alcohol number, style)
VALUES('VenderA', 1001, 'Italian');
INSERT INTO Food Vendor (vendor name, alcohol number, style)
VALUES('VenderB', 1002, 'Chinese');
INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
VALUES('VenderC', 1003, 'Mexican');
INSERT INTO Food Vendor (vendor name, alcohol number, style)
VALUES('VenderD', 1004, 'Indian');
```

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```
INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
VALUES('VenderE', 1005, 'French');

INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
VALUES('VenderF', 'Nike');
INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
VALUES('VenderG', 'Lululemon');
INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
VALUES('VenderH', 'Arcteryx');
INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
VALUES('VenderI', 'Adidas');
INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
VALUES('VenderJ', 'Prada');
```

## Screenshots of scripts being run

```
[2023-12-02 21:40:22] completed in 9 ms
ORA_MCUI03> INSERT INTO Guest (guest_name, email, ticket_number, phone_number)
           VALUES('Stephen Qiao', 'stephen@gmail.com', 1015, 123456789)
[2023-12-02 21:40:22] 1 row affected in 32 ms
ORA_MCUI03> INSERT INTO Guest (guest_name, email, ticket_number, phone_number)
           VALUES ('Leo Wang', 'leo.wang@gmail.com', 1010, 123456789)
[2023-12-02 21:40:47] 1 row affected in 10 ms
ORA_MCUIO3> INSERT INTO Guest (guest_name, email, ticket_number, phone_number)
           VALUES ('Michael Cui', 'michael@gmail.com', 1011, 123456789)
[2023-12-02 21:40:47] 1 row affected in 14 ms
ORA_MCUI03> INSERT INTO Guest (guest_name, email, ticket_number, phone_number)
            VALUES('Kaiser Ninomiya', 'kaiser@gmail.com', 1013, 123456789)
[2023-12-02 21:40:47] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Guest (guest_name, email, ticket_number, phone_number)
           VALUES('Jason Zhu', 'jason.zhu@gmail.com', 1014, 123456789)
[2023-12-02 21:40:47] 1 row affected in 7 ms
ORA_MCUI03> INSERT INTO Staff (staff_id, name, email, phone_number, staff_role)
           VALUES (1, 'Leo Wang', 'leo.wang@gmail.com', 123456789, 'Manager')
[2023-12-02 21:40:47] 1 row affected in 31 ms
ORA_MCUI03> INSERT INTO Staff (staff_id, name, email, phone_number, staff_role)
           VALUES(2, 'Michael Cui', 'michael@gmail.com', 123456789, 'Supervisor')
[2023-12-02 21:40:47] 1 row affected in 7 ms
ORA_MCUI03> INSERT INTO Staff (staff_id, name, email, phone_number, staff_role)
           VALUES(3, 'Kaiser Ninomiya', 'kaiser@gmail.com', 123456789, 'Technician')
[2023-12-02 21:40:47] 1 row affected in 20 ms
ORA_MCUI03> INSERT INTO Staff (staff_id, name, email, phone_number, staff_role)
           VALUES(4, 'Jason Zhu', 'jason.zhu@gmail.com', 123456789, 'Coordinator')
[2023-12-02 21:40:47] 1 row affected in 11 ms
ORA_MCUIO3> INSERT INTO Staff (staff_id, name, email, phone_number, staff_role)
           VALUES(5, 'Stephen Qiao', 'stephen@gmail.com', 123456789, 'Support Staff')
[2023-12-02 21:40:47] 1 row affected in 11 ms
ORA_MCUIO3> INSERT INTO Sponsor (sponsor_name, amount, request, phone_number, email)
            VALUES('Facebook', 10000, 'Display advertisement at Main Stage', 123456789, 'facebook@gmail.com')
[2023-12-02 21:40:47] 1 row affected in 16 ms
ORA_MCUI03> INSERT INTO Sponsor (sponsor_name, amount, request, phone_number, email)
           VALUES('Microsoft', 5000, 'Advertisement', 123456789, 'microsoft@gmail.com')
[2023-12-02 21:40:47] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Sponsor (sponsor_name, amount, request, phone_number, email)
           VALUES('Nike', 7000, 'Pop-up shop', 123456789, 'nike@gmail.com')
[2023-12-02 21:40:47] 1 row affected in 8 ms
```

```
[2023-12-02 21:40:48] 1 row affected in 19 ms
ORA_MCUIO3> INSERT INTO Sponsor (sponsor_name, amount, request, phone_number, email)
           VALUES('Alibaba', 8000, 'Advertisement', 123456789, 'alibaba@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Performer (performer_name, agent, phone_number, email)
           VALUES('NBA Youngboy', 'Rich Paul', 123456789, 'young@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 15 ms
ORA_MCUIO3> INSERT INTO Performer (performer_name, agent, phone_number, email)
           VALUES('Drake', 'Chubbs', 123456789, 'aubreygraham@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Performer (performer_name, agent, phone_number, email)
           VALUES('Travis Scott', 'Kylie Jenner', 123456789, 'tscott@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Performer (performer_name, agent, phone_number, email)
           VALUES('Kanye West', 'Pete Davidson', 123456789, 'ye@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Performer (performer_name, agent, phone_number, email)
           VALUES('Taylor Swift', 'Katy Perry', 123456789, 'taylorswift@gmail.com')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUIO3> INSERT INTO Event (event_time, event_id, event_name, event_description)
[2023-12-02 21:40:48] 1 row affected in 16 ms
ORA_MCUIO3> INSERT INTO Event (event_time, event_id, event_name, event_description)
           VALUES('2023-11-02 18:00:00', 2, 'NBA game', 'Golden State Warriors vs. Toronto Raptors')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUIO3> INSERT INTO Event (event_time, event_id, event_name, event_description)
           VALUES('2023-11-03 20:00:00', 3, 'NHL game', 'Toronto Maple Leafs vs. Calgary Flames')
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUIO3> INSERT INTO Event (event_time, event_id, event_name, event_description)
           VALUES('2023-11-04 14:00:00', 4, 'Drake Concert', 'live performance by the 6ix god')
[2023-12-02 21:40:48] 1 row affected in 17 ms
ORA_MCUIO3> INSERT INTO Event (event_time, event_id, event_name, event_description)
           VALUES('2023-11-05 12:00:00', 5, 'WNBA game', 'New York Liberty vs. Las Vegas Aces')
[2023-12-02 21:40:48] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Department (dept_name, dept_description, event_id)
           VALUES('Tech', 'Controls event technology', 1)
[2023-12-02 21:40:48] 1 row affected in 27 ms
ORA_MCUIO3> INSERT INTO Department (dept_name, dept_description, event_id)
```

```
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUIO3> INSERT INTO Department (dept_name, dept_description, event_id)
           VALUES('Audio', 'Controls event audio', 4)
[2023-12-02 21:40:48] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Department (dept_name, dept_description, event_id)
           VALUES('Bookings', 'Manages bookings', 5)
[2023-12-02 21:40:48] 1 row affected in 11 ms
ORA_MCUIO3> INSERT INTO Venue (venue_name, venue_address, venue_capacity, event_id)
           VALUES('Apple', '123 Granville Street', 500, 1)
[2023-12-02 21:40:48] 1 row affected in 16 ms
ORA_MCUIO3> INSERT INTO Venue (venue_name, venue_address, venue_capacity, event_id)
           VALUES('McDonald's', '456 Burrard Avenue', 800, 2)
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUIO3> INSERT INTO Venue (venue_name, venue_address, venue_capacity, event_id)
           VALUES('Nike', '789 University Blvd', 600, 3)
[2023-12-02 21:40:48] 1 row affected in 8 ms
ORA_MCUIO3> INSERT INTO Venue (venue_name, venue_address, venue_capacity, event_id)
           VALUES('Auto Group', '101 Student Union Blvd', 1000, 4)
[2023-12-02 21:40:48] 1 row affected in 7 ms
ORA_MCUIO3> INSERT INTO Venue (venue_name, venue_address, venue_capacity, event_id)
           VALUES('Merch Store', '202 Lougheed Circle', 1500, 5)
[2023-12-02 21:40:48] 1 row affected in 11 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderA', 'North Side', 8)
[2023-12-02 21:40:48] 1 row affected in 17 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderB', 'East Side', 6)
[2023-12-02 21:40:48] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderC', 'West Side', 7)
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderD', 'South Side', 5)
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderE', 'Central Area', 10)
[2023-12-02 21:40:48] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
```

Department of Computer Science

```
[2023-12-02 21:40:49] 1 row affected in 13 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderG', 'Central Area', 10)
[2023-12-02 21:40:49] 1 row affected in 8 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderH', 'Central Area', 10)
[2023-12-02 21:40:49] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderI', 'Central Area', 10)
[2023-12-02 21:40:49] 1 row affected in 10 ms
ORA_MCUI03> INSERT INTO Vendor (vendor_name, vendor_location, vendor_hours)
           VALUES('VenderJ', 'Central Area', 10)
[2023-12-02 21:40:49] 1 row affected in 10 ms
ORA_MCUIO3> INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
          VALUES('VenderA', 1001, 'Italian')
[2023-12-02 21:40:49] 1 row affected in 20 ms
ORA_MCUI03> INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
           VALUES('VenderB', 1002, 'Chinese')
[2023-12-02 21:40:49] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
           VALUES('VenderC', 1003, 'Mexican')
[2023-12-02 21:40:49] 1 row affected in 7 ms
ORA_MCUI03> INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
           VALUES('VenderD', 1004, 'Indian')
[2023-12-02 21:40:49] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Food_Vendor (vendor_name, alcohol_number, style)
           VALUES('VenderE', 1005, 'French')
[2023-12-02 21:40:49] 1 row affected in 8 ms
ORA_MCUIO3> INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
           VALUES('VenderF', 'Nike')
[2023-12-02 21:40:49] 1 row affected in 16 ms
ORA_MCUIO3> INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
           VALUES('VenderG', 'Lululemon')
[2023-12-02 21:40:49] 1 row affected in 9 ms
ORA_MCUI03> INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
           VALUES('VenderH', 'Arcteryx')
[2023-12-02 21:40:49] 1 row affected in 7 ms
ORA_MCUIO3> INSERT INTO Merchandise_Vendor (vendor_name, brands_carried)
           VALUES('VenderI', 'Adidas')
[2023-12-02 21:40:49] 1 row affected in 13 ms
```

#### **SQL Queries**

All of our SQL gueries are in the DatabaseConnectionHandler.java file.

Insert: line 174 Delete: line 99

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Update: line 229 Selection: line 252 Projection: line 282

Join: line 357

Aggregation with GROUP BY: 383
Aggregation with HAVING: line 414

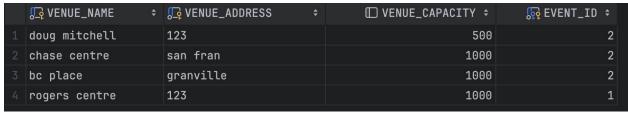
Nested Aggregation with GROUP BY: 448

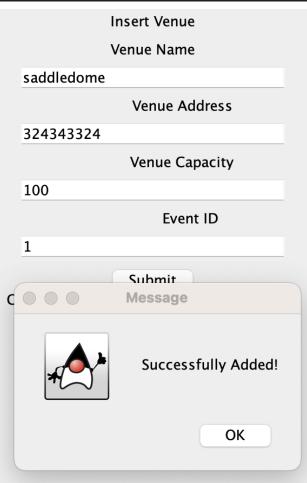
Division: line 501

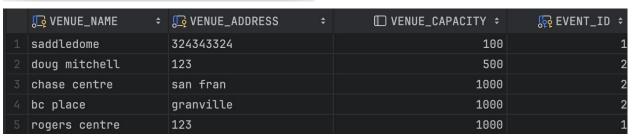
# Screenshots

Tables in the database

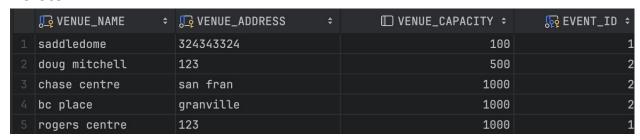
Insert

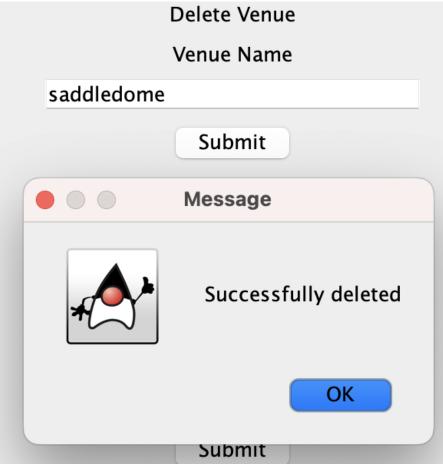


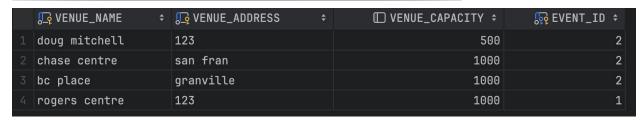




#### **Delete**

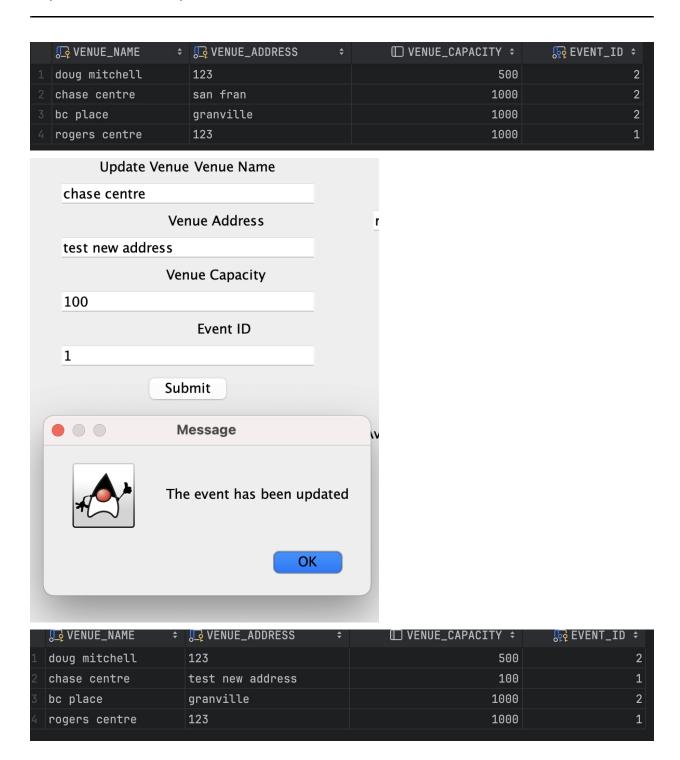






## **Update**

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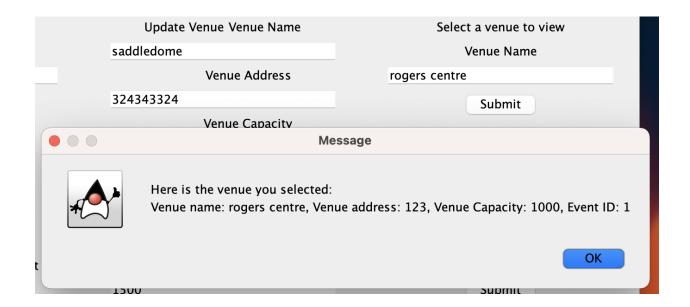


The rest of the sections are run with these table tables:

**Department of Computer Science** 

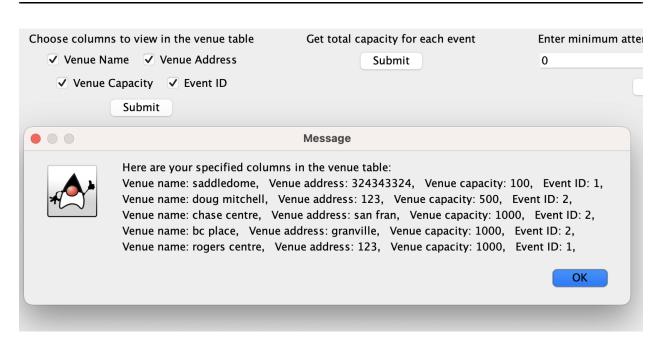


#### **Selection**

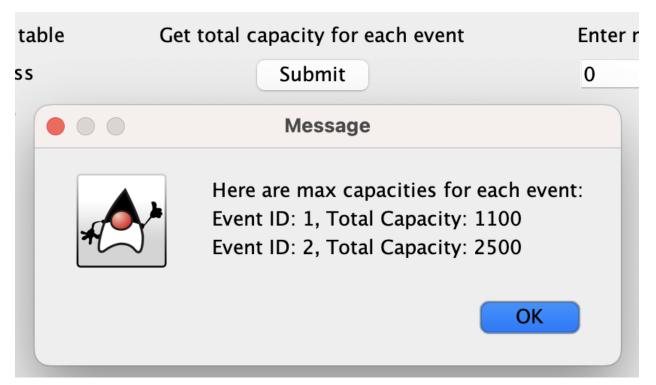


## **Projection**

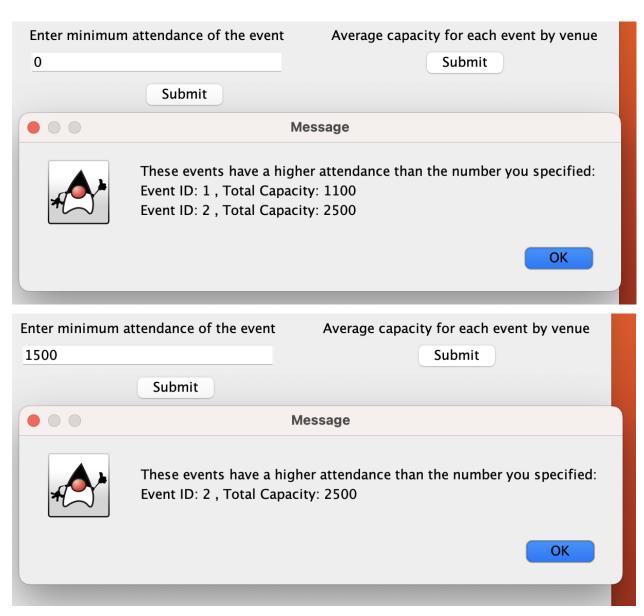
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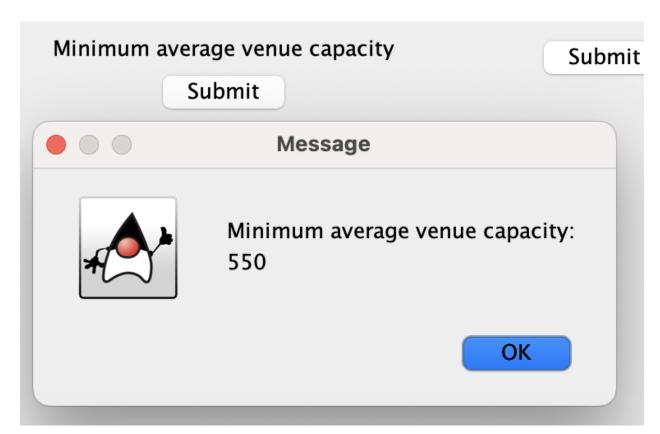
#### **Aggregation with Group-By**



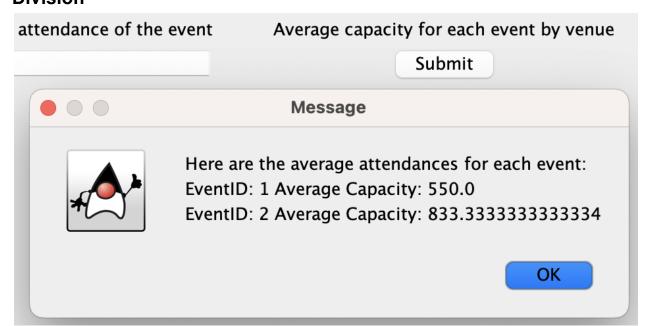
**Aggregation with Having** 



**Nested Aggregation with Group by** 



#### **Division**



#### Sources

**Tutorial 6**