# CSE 305 Group Assignment 2

# Team Avatar'); DROP TABLE students;--

Website Name: www.ebae.com

### Members

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# **Data Dumps**

### Items table

| ID | Name          | Туре | ManufactureYear | CopiesSold | Stock |
|----|---------------|------|-----------------|------------|-------|
| 1  | Titanic       | DVD  | 2005            | 1          | 2     |
| 2  | Nissan Sentra | Car  | 2007            | 1          | 3     |
| 3  | Gamecube      | Game | 2001            | 0          | 3     |
| 4  | Scott Pilgrim | DVD  | 2010            | 0          | 2     |
| 5  | Inception     | DVD  | 2010            | 0          | 10    |
| 6  | GTAV          | Game | 2014            | 0          | 10    |

## Customers table

| ID | LastName | FirstName | Address            | City        | State | ZipCode | Telephone      | Email                 | CreditCardNumber    | ItemsSold | ItemsPurchased | Rating |
|----|----------|-----------|--------------------|-------------|-------|---------|----------------|-----------------------|---------------------|-----------|----------------|--------|
| 1  | Smith    | John      |                    | Los Angeles | CA    | 12345   | (412) 443-4321 | shlu@ic.sunysb.edu    | 2345-6789-2345-6789 | 3         | 0              | 3      |
| 2  | Finch    | Atticus   | Нарру 987          | Stony Brook | NY    | 11790   | 516 111 11111  | finch@gmail.com       | 1111-1111-1111-1111 | 0         | 1              | 3      |
| 3  | Lu       | Shiyong   | 123 Success Street | Stony Brook | NY    | 11790   | (516) 632-8959 | shiyong@cs.sunysb.edu | 1234-5678-1234-5678 | 0         | 1              | 3      |
| 4  | Du       | Haixia    | 456 Fortune Road   | Stony Brook | NY    | 11790   | (516) 632-4360 | dhaixia@cs.sunysb.edu | 5678-1234-5678-1234 | 0         | 1              | 3      |

# Employees table

| SSN         | LastName | FirstName | Address           | City        | State | ZipCode | Telephone      | StartDate  | HourlyRate | Туре     | ID |
|-------------|----------|-----------|-------------------|-------------|-------|---------|----------------|------------|------------|----------|----|
| 123-45-6789 |          | David     | 123 College Road  | Stony Brook |       | 11790   | (516)215-2345  | 1998-11-01 |            |          | 1  |
| 789-12-3456 | Warren   | David     | 456 Sunken Street | Stony Brook | NY    | 11794   | (516) 632-9987 | 1994-02-02 | 50.00      | Employee | 2  |
| 781-14-3126 | Karl     | Kyle      | 123 Broad Street  | Bell        | NY    | 11241   | (516) 212-1234 | 2003-10-07 | 50.00      | Employee | 3  |

## Auctions table

| ID | ItemID | SellerID | OpeningTime         | ClosingTime         | OpeningBid | CurrentBid | Reserve | Increment | EmployeeID |
|----|--------|----------|---------------------|---------------------|------------|------------|---------|-----------|------------|
| 1  | 2      | 1        | 1998-11-01 00:00:00 | 2008-12-08 13:00:00 | 1000.00    | 1900.00    | 1500.00 | 100.00    | 2          |
| 3  | 3      | 1        | 1998-11-01 00:00:00 | 2015-10-20 10:00:00 |            | 100.00     | 210.00  | 20.00     | 2          |
| 4  | 1      | 1        | 1998-11-01 00:00:00 | 1998-12-01 00:00:00 |            | 50.00      | 25.00   | 5.00      | 2          |
| 5  | 6      | 3        | 2015-04-04 09:00:00 | 2015-05-05 09:00:00 | 15.00      | 31.00      | 25.00   | 2.00      | 2          |

# Bids table

| ID       | Time                | Amount  | CustomerID | AuctionID | MaxBid  | ItemID |
|----------|---------------------|---------|------------|-----------|---------|--------|
|          |                     |         |            |           |         |        |
| 1        | 2015-08-08 09:00:00 | 600.00  | 4          | 3         | 800.00  | 3      |
|          |                     |         |            |           |         |        |
| 2        | 2004-10-24 09:33:43 | 1500.00 | 2          | 1         | 2000.00 | 2      |
|          |                     |         |            |           |         |        |
| 3        | 2004-10-25 09:33:43 | 1600.00 | 3          | 1         | 1800.00 | 2      |
| 1        |                     |         |            |           |         |        |
| 4        | 2004-10-25 09:33:43 | 1700.00 | 2          | 1         | 1800.00 | 2      |
| _        | 0004 10 05 00 00 44 | 1000 00 |            |           | 1000 00 |        |
| 5        | 2004-10-25 09:33:44 | 1800.00 | 3          | 1         | 1800.00 | 2      |
| 6        | 2004-10-25 09:33:45 | 1900.00 | 2          | 1         | 1900.00 | 2      |
| ļ —      | 2004-10-25 05.55.45 | 1300.00 | -          | <u> </u>  | 1300.00 |        |
| 7        | 1998-11-04 14:24:00 | 30.00   | 4          | 4         | 40.00   | ] I    |
| $\vdash$ |                     |         |            |           |         |        |
| 8        | 1998-11-08 19:13:00 | 50.00   | 3          | 4         | 55.00   | 1      |
|          |                     |         |            |           |         |        |
| 9        | 2015-04-10 12:12:34 | 20.00   | 4          | 5         | 25.00   | 6      |
|          |                     |         |            |           |         |        |
| 10       | 2015-04-11 23:11:14 | 25.00   | 1          | 5         | 35.00   | 6      |
|          |                     |         |            |           |         |        |
| 11       | 2015-04-14 12:12:34 | 30.00   | 2          | 5         | 30.00   | 6      |
| ],_      | 2015 04 14 12 12 25 | 23. 00  | ,          |           | 25 00   |        |
| 12       | 2015-04-14 12:12:35 | 31.00   | 1          | 5         | 35.00   | 6      |

### Wins table

| BidID | Time                | CustomerID | AuctionID |
|-------|---------------------|------------|-----------|
| 6     | 2008-12-08 13:00:00 | 2          | 1         |
| 1     | 2015-08-08 09:00:00 | 4          | 3         |
| 8     | 1998-12-01 00:00:00 | 3          | 4         |
| 12    | 2015-05-05 00:00:00 | 1          | 5         |

### Searches table

| CustomerID | ItemID | Frequency |  |  |
|------------|--------|-----------|--|--|
| 2          | 2      | 1         |  |  |
| 3          | 4      | 2         |  |  |

# Manager Level Transactions

# Add, Modify and Delete employees

### Add

## Format

### Parameters:

- 1. ?ssn: Social security of employee. String, 12 characters
- 2. ?lastName : Last name of employee. String, upto 30 characters
- 3. ?firstName : First name of employee. String, upto 30 characters
- 4. ?address : Address of employee. String, upto 100 characters
- 5. ?city: City where employee lives. String, upto 30 characters
- 6. ?state : State where employee lives. String, upto 30 characters
- 7. ?zipCode : Zip code of employee. Integer.
- 8. ?startDate : Date when employee started. Format yyyy-mm-dd
- 9. ?hourlyRate: Employee's hourly salary. Decimal Format 10.2f
- 10. ?type : Type of employee. "Manager", "Employee", or "Customer Representative"

### START TRANSACTION;

INSERT INTO Employees(SSN, LastName, FirstName, Address, City, State, ZipCode, Telephone, StartDate, HourlyRate, Type)

VALUES (?ssn, ?lastName, ?firstName, ?address, ?city, ?state, ?zipcode,?phone,?startDate,?hourlyRate,?type); COMMIT;

### **Sample Call**

oglo INSERT INTO Employees(SSN, LastName, FirstName, Address, City, State, ZipCode, Telephone, StartDate, HourlyRate, Type)

VALUES ('345-45-123', 'Tarbell', 'Billy', '4232 Summit Park Avenue', 'Brewton','AL', 36426,'251-212-0863','1994-02-02 00:00:00',60.00,'CustRep')

[2015-10-27 12:48:20] 1 row affected in 53ms

| SSN         | LastName | FirstName | Address                 | City        | State | ZipCode | Telephone      | StartDate  | HourlyRate | Туре     | ID |
|-------------|----------|-----------|-------------------------|-------------|-------|---------|----------------|------------|------------|----------|----|
| 123-45-6789 | Smith    | David     | 123 College Road        | Stony Brook | NY    | 11790   | (516)215-2345  | 1998-11-01 | 60.00      | Manager  | 1  |
| 789-12-3456 | Warren   | David     | 456 Sunken Street       | Stony Brook | NY    | 11794   | (516) 632-9987 | 1994-02-02 | 50.00      | Employee | 2  |
| 781-14-3126 | Karl     | Kyle      | 123 Broad Street        | Bell        | NY    | 11241   | (516) 212-1234 | 2003-10-07 | 50.00      | Employee | 3  |
| 345-45-123  | Tarbell  | Billy     | 4232 Summit Park Avenue | Brewton     | AL    | 36426   | 251-212-0863   | 1994-02-02 | 60.00      | CustRep  | 4  |

### Modify

#### **Format**

#### Parameters:

1. ?FirstName : First name of Employee. String upto 30 characters

2. ?id : ID of employee. Integer

### START TRANSACTION;

UPDATE Employees

SET FirstName = ?FirstName

WHERE ID = ?id

COMMIT

```
sql> UPDATE Employees
SET FirstName = 'Kyle'
WHERE ID = 4
[2015-10-27 13:18:38] 1 row affected in 153ms
```

| SSN         | LastName | FirstName | Address                 | City        | State | ZipCode | Telephone      | StartDate  | HourlyRate | Туре     | ID |
|-------------|----------|-----------|-------------------------|-------------|-------|---------|----------------|------------|------------|----------|----|
| 123-45-6789 | Smith    | David     | 123 College Road        | Stony Brook | NY    | 11790   | (516)215-2345  | 1998-11-01 | 60.00      | Manager  | 1  |
| 789-12-3456 | Warren   | David     | 456 Sunken Street       | Stony Brook | NY    | 11794   | (516) 632-9987 | 1994-02-02 | 50.00      | Employee | 2  |
| 781-14-3126 | Karl     | Kyle      | 123 Broad Street        | Bell        | NY    | 11241   | (516) 212-1234 | 2003-10-07 | 50.00      | Employee | 3  |
| 345-45-123  | Tarbell  | Kyle      | 4232 Summit Park Avenue | Brewton     | AL    | 36426   | 251-212-0863   | 1994-02-02 | 60.00      | CustRep  | 4  |

### Delete

#### **Format**

Parameters:

1. ID of the employee to be deleted. Integer

```
BEGIN TRANSACTION;

DELETE FROM Employees

WHERE ID = ?id

COMMIT;
```

page-break

### **Sample Call**

```
sql> DELETE FROM Employees
WHERE ID = 4
[2015-10-27 13:19:54] 1 row affected in 151ms
```

| SSN         | LastName | FirstName | Address           | City        | State | ZipCode | Telephone      | StartDate  | HourlyRate | Туре     | ID |
|-------------|----------|-----------|-------------------|-------------|-------|---------|----------------|------------|------------|----------|----|
| 123-45-6789 | Smith    | David     | 123 College Road  | Stony Brook | NY    | 11790   | (516) 215-2345 | 1998-11-01 | 60.00      | Manager  | 1  |
| 789-12-3456 | Warren   | David     | 456 Sunken Street | Stony Brook | NY    | 11794   | (516) 632-9987 | 1994-02-02 | 50.00      | Employee | 2  |
| 781-14-3126 | Karl     | Kyle      | 123 Broad Street  | Bell        | NY    | 11241   | (516) 212-1234 | 2003-10-07 | 50.00      | Employee | 3  |

# Obtain a sales report for a particular month

### **Format**

```
CREATE VIEW Sales_Report AS

SELECT Items.ID AS ItemID, Bids.ID AS BidID, Customers.ID AS CustomerID, Employees.ID AS MonitorID, Wins.Time

AS Time, concat(Customers.LastName, '', Customers.FirstName) AS BoughtBy, Bids.Amount AS Amount,

Customers.Email As Email, Items.Name AS ItemName, Items.Type AS ItemType, concat(Employees.FirstName, '',

Employees.LastName) AS MonitorName

FROM Wins, Bids, Customers, Items, Employees, Auctions

WHERE Wins.BidID = Bids.ID

AND Bids.CustomerID = Customers.ID

AND Bids.ItemID = Items.ID

AND Bids.AuctionID = Auctions.ID

AND Auctions.EmployeeID = Employees.ID;

SELECT * FROM Sales_Report;
```

```
CREATE VIEW Sales_Report AS

SELECT Items.ID AS ItemID, Bids.ID AS BidID, Customers.ID AS CustomerID, Employees.ID AS MonitorID, Wins.Time AS Time, concat(Customers.LastName, ' ', FROM Wins, Bids, Customers, Items, Employees, Auctions

WHERE Wins.BidID = Bids.ID

AND Bids.CustomerID = Customers.ID

AND Bids.ItemID = Items.ID

AND Bids.AuctionID = Auctions.ID

AND Auctions.EmployeeID = Employees.ID

[2015-10-27 13:26:43] completed in 37ms

SELECT * FROM Sales_Report

[2015-10-27 13:27:18] 4 rows retrieved starting from 1 in 2s 585ms (execution: 2s 543ms, fetching: 42ms)
```

| ItemID | BidID | CustomerID | MonitorID | Time                | BoughtBy      | Amount  | Email                 | ItemName      | ItemType | MonitorName  |
|--------|-------|------------|-----------|---------------------|---------------|---------|-----------------------|---------------|----------|--------------|
| 2      | 6     | 2          | 2         | 2008-12-08 13:00:00 | Finch Atticus | 1900.00 | finch@gmail.com       | Nissan Sentra | Car      | David Warren |
| 3      | 1     | 4          | 2         | 2015-08-08 09:00:00 | Du Haixia     | 600.00  | dhaixia@cs.sunysb.edu | Gamecube      | Game     | David Warren |
| 1      | 8     | 3          | 2         | 1998-12-01 00:00:00 | Lu Shiyong    | 50.00   | shiyong@cs.sunysb.edu | Titanic       | DVD      | David Warren |
| 6      | 12    | 1          | 2         | 2015-05-05 00:00:00 | Smith John    | 31.00   | shlu@ic.sunysb.edu    | GTAV          | Game     | David Warren |

# Comprehensive Listing of all items

### **Format**

```
SELECT * FROM Items
```

### **Sample Call**

```
sql> <mark>SELECT * FROM</mark> Items
[2015-10-27 13:30:31] 6 rows retrieved starting from 1 in 58ms (execution: 44ms, fetching: 14ms)
```

| ID | Name          | Туре | ManufactureYear | CopiesSold | Stock |
|----|---------------|------|-----------------|------------|-------|
| 1  | Titanic       | DVD  | 2005            | 1          | 2     |
| 2  | Nissan Sentra | Car  | 2007            | 1          | 3     |
| 3  | Gamecube      | Game | 2001            | 0          | 3     |
| 4  | Scott Pilgrim | DVD  | 2010            | 0          | 2     |
| 5  | Inception     | DVD  | 2010            | 0          | 10    |
| 6  | GTAV          | Game | 2014            | 0          | 10    |

# Produce a list of sales by item name or by customer name

List of sales by item name

### **Format**

Parameters:

1. ?itemName: Name of item. String upto 30 characters

SELECT \* FROM Sales\_Report WHERE ItemName = ?itemName

### **Sample Call**

```
sql> SELECT * FROM Sales_Report WHERE ItemName = 'Titanic'
[2015-10-27 13:32:00] 1 row retrieved starting from 1 in 147ms (execution: 134ms, fetching: 13ms)
```

| ItemID | BidID | CustomerID | MonitorID | Time                | BoughtBy   | Amount | Email                 | ItemName | ItemType | MonitorName  |
|--------|-------|------------|-----------|---------------------|------------|--------|-----------------------|----------|----------|--------------|
| 1      | 8     | 3          | 2         | 1998-12-01 00:00:00 | Lu Shiyong | 50.00  | shiyong@cs.sunysb.edu | Titanic  | DVD      | David Warren |

### List of sales by customer name

#### **Format**

### Parameters:

1. ?name : Name of Customer. String upto 60 characters

```
SELECT * FROM Sales_Report WHERE BoughtBy = ?name;
```

### **Sample Call**

```
sql> SELECT * FROM Sales_Report WHERE BoughtBy = 'Du Haixia'
[2015-10-27 13:33:29] 1 row retrieved starting from 1 in 62ms (execution: 45ms, fetching: 17ms)
```

| I | ItemID | BidID | CustomerID | MonitorID | Time                | BoughtBy  | Amount | Email                 | ItemName | ItemType | MonitorName  |
|---|--------|-------|------------|-----------|---------------------|-----------|--------|-----------------------|----------|----------|--------------|
|   |        | 1     | 4          | 2         | 2015-08-08 09:00:00 | Du Haixia | 600.00 | dhaixia@cs.sunysb.edu | Gamecube | Game     | David Warren |

# Revenue generated

### By ItemName

### **Format**

### Parameters:

1. ?itemName : Name of item. String upto 30 characters

SELECT SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold from Sales\_Report where ItemName = ?itemName;

### **Sample Call**

sql> SELECT SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold from Sales\_Report where ItemName = 'Titanic' [2015-10-27 13:38:14] 1 row retrieved starting from 1 in 189ms (execution: 177ms, fetching: 12ms)

| Revenue | CopiesSold |
|---------|------------|
| 50.00   | 1          |

### By ItemType

#### **Format**

#### Parameters:

1. ?itemType: Type of item. String upto 30 characters

SELECT ItemName, SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold FROM Sales\_Report WHERE ItemType = ?itemType GROUP BY ItemName;

#### **Sample Call**

```
SELECT SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold from Sales_Report where ItemName = 'Titanic' [2015-10-27 13:38:14] 1 row retrieved starting from 1 in 189ms (execution: 177ms, fetching: 12ms)
```

| Revenue | CopiesSold |
|---------|------------|
| 50.00   | 1          |

### By CustomerName

#### **Format**

#### Parameters:

1. ?customerName : Name of customer. String upto 60 chars

SELECT ItemName, SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold FROM Sales\_Report WHERE BoughtBy = ?customerName GROUP BY ItemName

### **Sample Call**

```
SELECT ItemType, SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold

FROM Sales_Report

WHERE BoughtBy = 'Du Haixia'

GROUP BY ItemType

[2015-10-27 13:58:59] 1 row retrieved starting from 1 in 86ms (execution: 70ms, fetching: 16ms)
```

| ItemType | Revenue | CopiesSold |
|----------|---------|------------|
| Game     | 600.00  | 1          |

# Max revenue generated by customer representative

### **Format**

```
SELECT SUM(Amount) AS Revenue, COUNT(Amount) AS ItemsSold
FROM Sales_Report
GROUP BY MonitorID
ORDER BY Revenue DESC
LIMIT 1
```

```
FROM Sales_Report
GROUP BY MonitorID
ORDER BY Revenue DESC
LIMIT 1
[2015-10-27 15:05:32] 1 row retrieved starting from 1 in 48ms (execution: 37ms, fetching: 11ms)
```

| Revenue | ItemsSold |
|---------|-----------|
| 2581.00 | 4         |

# Max Revenue generated by customer

### **Format**

```
SELECT BoughtBy as CustomerName, CustomerID, SUM(Amount) AS Revenue, COUNT(Amount) AS ItemsPurchased FROM Sales_Report
GROUP BY CustomerID
ORDER BY Revenue DESC
LIMIT 1
```

### **Sample Call**

```
SELECT BoughtBy as CustomerName, CustomerID, SUM(Amount) AS Revenue, COUNT(Amount) AS ItemsPurchased FROM Sales_Report
GROUP BY CustomerID
ORDER BY Revenue DESC
LIMIT 1
[2015-10-27 15:09:22] 1 row retrieved starting from 1 in 79ms (execution: 70ms, fetching: 9ms)
```

| CustomerName  | CustomerID | Revenue | ItemsPurchased |
|---------------|------------|---------|----------------|
| Finch Atticus | 2          | 1900.00 | 1              |

### **Best Sellers**

#### **Format**

```
SELECT ItemName, SUM(Amount) AS Revenue, COUNT(Amount) AS CopiesSold
FROM Sales_Report
GROUP BY ItemID
ORDER BY Revenue DESC
LIMIT 10
```

```
FROM Sales_Report
GROUP BY ItemID
ORDER BY Revenue DESC
LIMIT 10
[2015-10-27 15:12:07] 4 rows retrieved starting from 1 in 53ms (execution: 44ms, fetching: 9ms)
```

| ItemName      | Revenue | CopiesSold |
|---------------|---------|------------|
| Nissan Sentra | 1900.00 | 1          |
| Gamecube      | 600.00  | 1          |
| Titanic       | 50.00   | 1          |
| GTAV          | 31.00   | 1          |

# **Customer Representative level Transactions**

### Record a sale

### Format

Parameters: ?BidID: ID of the bid. Integer ?Time: Time the sale was made. Date value ?WinnerID: ID of the customer who won the auction. Integer ?AuctionID: ID of the auction. Integer ?ItemID: ID of the item being updated. Integer

```
START TRANSACTION;
INSERT INTO Wins (BidID, Time, CustomerID, AuctionID)
VALUES (?BidID,?Time,?WinnerID, ?AuctionID);

UPDATE Items
SET CopiesSold = CopiesSold + 1, Stock=Stock-1
WHERE ID=?ItemID

UPDATE Customers
SET ItemsSold=ItemsSold+1
WHERE ID = (SELECT SellerID
FROM Auctions
WHERE ID = ?AuctionID);

UPDATE Customers
SET ItemsPurchased=ItemsPurchased+1
WHERE ID = ?WinnerID
COMMIT;
```

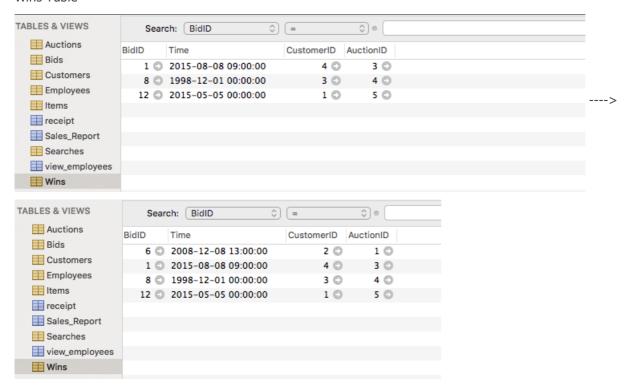
```
START TRANSACTION;
INSERT INTO Wins (BidID, Time, CustomerID, AuctionID)
VALUES (6,"2008-12-08 13:00:00",2, 1);

UPDATE Items
SET CopiesSold = CopiesSold + 1, Stock=Stock-1
WHERE ID=1

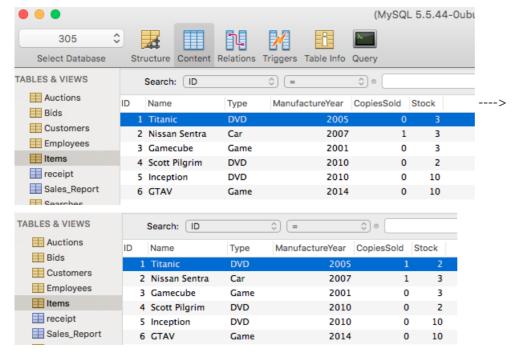
UPDATE Customers
SET ItemsSold=ItemsSold+1
WHERE ID = (SELECT SellerID
FROM Auctions
WHERE ID = 1);

UPDATE Customers
SET ItemsPurchased=ItemsPurchased+1
WHERE ID = 2
COMMIT;
```

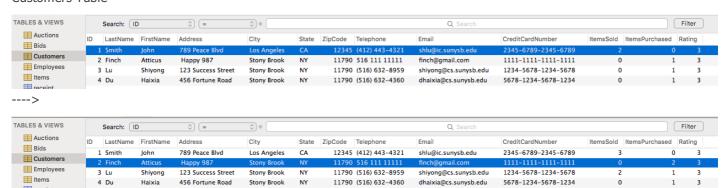
### Wins Table



#### Items Table



#### **Customers Table**



# Add, Edit, Delete inFormation for a customer

#### Add

#### **Format**

### START TRANSACTION;

INSERT INTO Customers (ID, LastName, FirstName, Address, City, State, ZipCode, Telephone, Email, CreditCardNumber,ItemsSold,ItemsPurchased,Rating)

Values ('?ID', '?LastName', '?FirstName', '?Address', '?City', '?NY', '?Zipcode', '?Telephone', '?email', '?CreditCardNumber', '?ItemsSold','?ItemsPurchased','?Rating')
COMMIT;

#### Parameters:

- 1. ?ID: ID of the customer: Integer
- 2. ?lastName: Last name of the customer. String, up to 30 characters
- 3. ?firstName: First name of customer. String, upto 30 characters
- 4. ?address : Address of customer. String, upto 100 characters
- 5. ?city: City where customer lives. String, upto 30 characters
- 6. ?state : State where customer lives. String, upto 30 characters
- 7. ?zipCode: Zip code of customer. Integer.

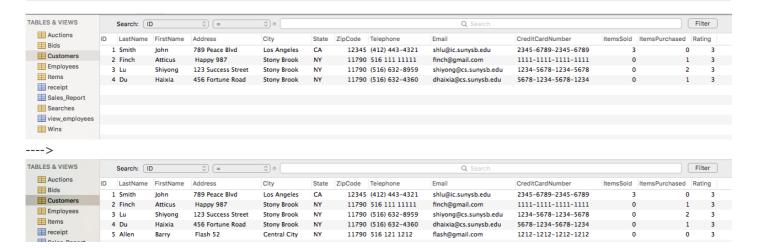
### Sample Call:

### START TRANSACTION;

INSERT INTO Customers (ID, LastName, FirstName, Address, City, State, ZipCode, Telephone, Email, CreditCardNumber,ItemsSold,ItemsPurchased,Rating)

Values ('5', 'Allen', 'Barry', 'Flash 52', 'Central City', 'NY', '11790', '516 121 1212', 'flash@gmail.com', '1212-1212-1212-1212','0','0','3')

### COMMIT;



### Edit

### Format

#### START TRANSACTION;

**UPDATE** Customers

SET LastName='?LastName', FirstName', Address= '?Address', City= '?City', State= '?State', ZipCode= ? Zipcde, Telephone= '?Telephone', Email= '?Email', CreditCardNumber= '?CreditCardNumber', ItemsSold=

'?ItemsSold', ItemsPurchased='?ItemsPurchased', Rating=?Rating

WHERE ID=?ID

COMMIT;

#### Parameters:

- 1. ?lastName : Last name of customer. String, upto 30 characters
- 2. ?firstName: First name of customer. String, upto 30 characters
- 3. ?address : Address of customer. String, upto 100 characters
- 4. ?city: City where customer lives. String, upto 30 characters
- 5. ?state : State where customer lives. String, upto 30 character
- 6. ?zipCode: Zip code of customer. Integer.
- 7. ?telephone: telephone number of customer: String, up to 20 characters
- 8. ?email: email of customer: String, up to 60 characters
- 9. ?ID: id of customer to be updated

### Sample Call:

#### START TRANSACTION; **UPDATE** Customers SET LastName='Lang', FirstName='Lana', Address= '777 Hope Street', City= 'Smallville', State= 'NY', ZipCode= 11111, Telephone= '(516)888-8888', Email= 'lana@gmail.com', CreditCardNumber= '1233-4444-5555-6666', ItemsSold='12', ItemsPurchased='3', Rating=1 WHERE ID=1 COMMIT; TABLES & VIEWS Search: ID ÷ = \$ o Filter Auctions ID LastName FirstName Address City State ZipCode Telephone Email CreditCardNumber ItemsSold ItemsPurchased Rating Bids 12345 (412) 443-4321 2345-6789-2345-6789 1 Smith lohn 789 Peace Blvd Los Angeles CA shlu@ic.sunvsb.edu 0 E Customers 2 Finch Happy 987 11790 516 111 11111 1111-1111-1111-1111 Atticus NY Stony Brook finch@gmail.com

|                |    | 3 Lu       | Shiyong     | 123 Success Street | Stony Brook  | NY    | 11790   | (516) 632-8959 | shiyong@cs.sunysb.edu | 1234-5678-1234-5678 | 0         | 7              | 2     | 3  |
|----------------|----|------------|-------------|--------------------|--------------|-------|---------|----------------|-----------------------|---------------------|-----------|----------------|-------|----|
| Items          |    | 4 Du       | Haixia      | 456 Fortune Road   | Stony Brook  | NY    | 11790   | (516) 632-4360 | dhaixia@cs.sunysb.edu | 5678-1234-5678-1234 | 0         | 1              | 1     | 3  |
| receipt        |    | 5 Allen    | Barry       | Flash 52           | Central City | NY    | 11790   | 516 121 1212   | flash@gmail.com       | 1212-1212-1212-1212 | 0         | (              | 0     | 3  |
| Color Bornet   |    |            |             |                    |              |       |         |                |                       |                     |           |                |       |    |
| >              |    |            |             |                    |              |       |         |                |                       |                     |           |                |       |    |
| TABLES & VIEWS |    |            |             |                    |              |       |         |                | Q Search              |                     |           |                |       |    |
| IABLES & VIEWS |    | Search: ID | : (ID 🗘) (= |                    | \$) o        |       |         |                | Fi                    |                     |           | Filt           | .er   |    |
| Auctions       | ID | LastName   | FirstName   | Address            | City         | State | ZipCode | Telephone      | Email                 | CreditCardNumber    | ItemsSold | ItemsPurchased | Ratir | ng |
| Bids           |    | 1 Lang     | Lana        | 777 Hope Street    | Smallville   | NY    | 11111   | (516)888-8888  | lana@gmail.com        | 1233-4444-5555-6666 | 12        | - :            | 3     | 1  |
| E Customers    |    | 2 Finch    | Atticus     | Happy 987          | Stony Brook  | NY    | 11790   | 516 111 11111  | finch@gmail.com       | 1111-1111-1111-1111 | 0         | 1              | 1     | 3  |
| Employees      |    | 3 Lu       | Shiyong     | 123 Success Street | Stony Brook  | NY    | 11790   | (516) 632-8959 | shiyong@cs.sunysb.edu | 1234-5678-1234-5678 | 0         | 7              | 2     | 3  |
| - Items        |    | 4 Du       | Haixia      | 456 Fortune Road   | Stony Brook  | NY    | 11790   | (516) 632-4360 | dhaixia@cs.sunysb.edu | 5678-1234-5678-1234 | 0         | Ţ              | 1     | 3  |
| receipt        |    | 5 Allen    | Barry       | Flash 52           | Central City | NY    | 11700   | 516 121 1212   | flash@gmail.com       | 1212-1212-1212-1212 | 0         | ,              | 0     | 3  |
|                |    |            | Darry       | riasri 52          | Central City | INT   |         |                | nasnwyman.com         | 1212-1212-1212-1212 | 0         |                |       |    |

### Delete

START TRANSACTION;

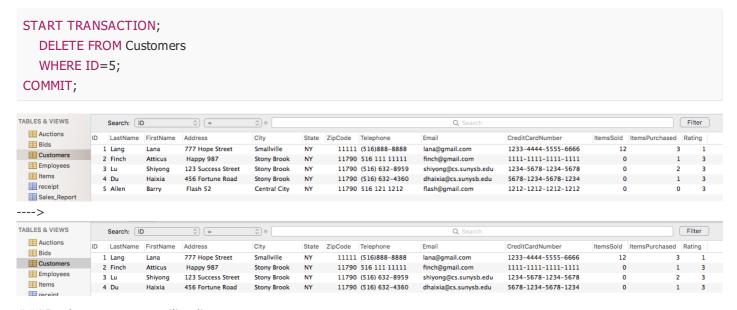
DELETE FROM Customers

WHERE ID=?ID;

COMMIT;

### Parameters:

1. ?ID: ID of customer to be deleted: Integer



###Produce customer mailing lists

#### **Format**

```
START TRANSACTION;

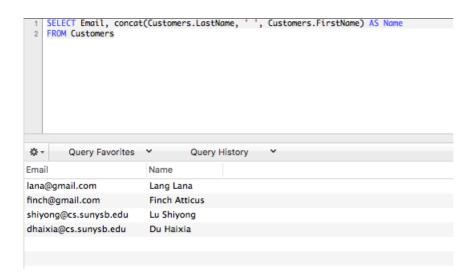
SELECT Email, concat(Customers.?LastName, '', Customers.?FirstName) AS Name
FROM Customers
COMMIT;
```

### Parameters:

- 1. ?email: email of customer. String, up to 60 characters
- 2. ?lastname: last name of customer. String, up to 30 characters
- 3. ?firstname: first name of cusomer. String, up to 30 characters

```
START TRANSACTION;

SELECT Email, concat(Customers.LastName, '', Customers.FirstName) AS Name
FROM Customers
COMMIT;
```



# **Customer level Transactions**

# Find bid history for an auction

### **Format**

Parameters:

1. ?aID : the ID of the Auction you want to see the bid history of

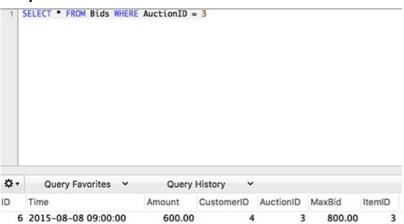
```
START TRANSACTION;

SELECT *

FROM Bids

WHERE AuctionID = ?aID;

COMMIT;
```



## Find current and past auctions a customer has taken part in

#### **Format**

#### Parameters:

1. ?custID = the ID of the Customer you want see the current/past auctions of

```
START TRANSACTION;

SELECT *

FROM Auctions

WHERE ID IN (

SELECT AuctionID

FROM Bids

WHERE CustomerID = ?custID

);

COMMIT;
```

### **Sample Call**



# Items sold by a given seller and corresponding auction info

#### **Format**

Parameters:

1. ?sellerID = the ID of the customer who's sold

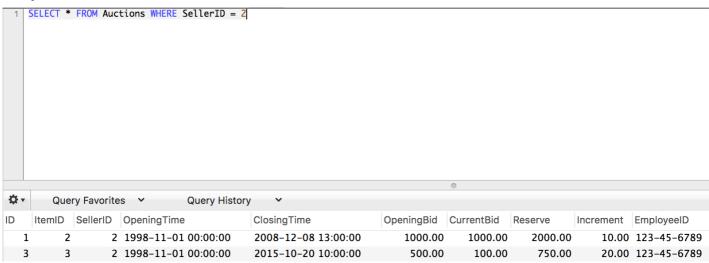
```
START TRANSACTION;

SELECT *

FROM Auctions

WHERE SellerID = ?sellerID;

COMMIT;
```



## Items available of a particular type and corresponding auction info

### **Format**

#### Parameters:

1. ?itemType = the type of the Item you want to see auctions for (e.g. 'DVD', 'Car')

```
START TRANSACTION;

SELECT *

FROM Auctions

WHERE ItemID IN (

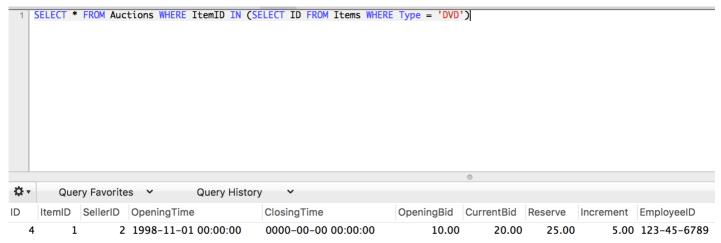
SELECT ID

FROM Items

WHERE Type = ?itemType

);

COMMIT;
```



Items available with a particular keyword or set of keywords in the item name, and corresponding auction info

#### **Format**

```
START TRANSACTION;

SELECT *

FROM Auctions

WHERE ID IN (

SELECT ID

FROM Items

WHERE Name

LIKE '%?keyword%'

);

COMMIT;
```

?keyword = the keywords you want to match

### **Sample Call**

```
SELECT * FROM Auctions WHERE ID IN (SELECT ID FROM Items WHERE Name LIKE '%tita%')

Query Favorites 
Query Favorites 
Query History

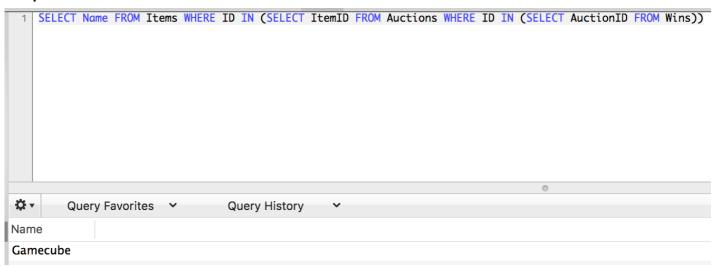
D ItemID SellerID OpeningTime ClosingTime OpeningBid CurrentBid Reserve Increment EmployeeID

1 2 2 1998-11-01 00:00:00 2008-12-08 13:00:00 1000.00 1000.00 2000.00 10.00 123-45-6789
```

### Best-Seller list

#### **Format**

```
START TRANSACTION;
SELECT Name
FROM Items
WHERE ID IN (
SELECT ItemID
FROM Auctions
WHERE ID IN (
SELECT AuctionID
FROM Wins
)
);
COMMIT;
```

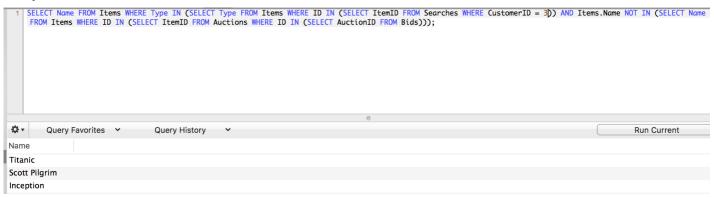


# Personalized item suggestion list

### **Format**

```
START TRANSACTION;
SELECT Name
FROM Items
WHERE Type IN (
 SELECT Type
 FROM Items
 WHERE ID IN (
   SELECT ItemID
   FROM Searches
   WHERE CustomerID = ?custID
 )
)
AND
Items.Name NOT IN (
 SELECT Name
 FROM Items
 WHERE ID IN (
   SELECT ItemID
   FROM Auctions
   WHERE ID IN (
    SELECT AuctionID
    FROM Bids
   )
 )
);
COMMIT;
```

?custID = the ID of the customer who we're creating a suggestion list for



A view for customer representatives to read employee in **Format**ion, except for the hourly rate and SSN.

### **Format**

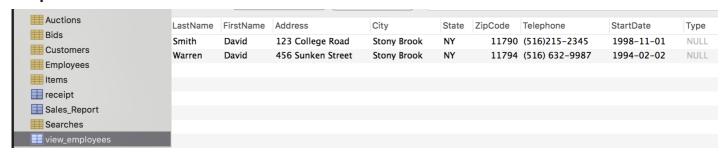
```
START TRANSACTION;

CREATE VIEW view_employees AS (

SELECT LastName, FirstName, Address, City, State, ZipCode, Telephone, StartDate, Type
FROM Employees
);

COMMIT;
```

### **Sample Call**



A view of a receipt of an order from a customer.

### **Format**

```
START TRANSACTION;

CREATE VIEW receipt AS (

SELECT C.Id, C.LastName, C.FirstName, C.Address, C.City, C.State, C.ZipCode, C.Telephone, C.Email,

C.CreditCardNumber, I.Name, W.Time, W.AuctionID, A.CurrentBid

FROM Customers C, Items I, Wins W, Auctions A

WHERE W.CustomerID = C.ID AND W.AuctionID = A.ID AND A.ItemID = I.ID

);

COMMIT;
```

| -              |    |            | _         | -) (             | • )         |       |         |                | -,                    |                     |          |   |
|----------------|----|------------|-----------|------------------|-------------|-------|---------|----------------|-----------------------|---------------------|----------|---|
| Auctions       | Ic | d LastName | FirstName | Address          | City        | State | ZipCode | Telephone      | Email                 | CreditCardNumber    | Name     | 1 |
| Bids Customers |    | 4 Du       | Haixia    | 456 Fortune Road | Stony Brook | NY    | 11790   | (516) 632-4360 | dhaixia@cs.sunysb.edu | 5678-1234-5678-1234 | Gamecube | 2 |
| Employees      |    |            |           |                  |             |       |         |                |                       |                     |          |   |
| Items          |    |            |           |                  |             |       |         |                |                       |                     |          |   |
| receipt        |    |            |           |                  |             |       |         |                |                       |                     |          |   |