CSE 305 Group Assignment 2

Team Avatar'); DROP TABLE students;--

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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



Employees table

SSN	LastName	FirstName	Address	City	State	ZipCode	Telephone	StartDate	HourlyRate	Туре	ID
123-45-6789		David	123 College Road		NY	11790	(516)215-2345	1998-11-01			1
789-12-3456		David	456 Sunken Street		NY	11794	(516) 632-9987	1994-02-02			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	90.00	100.00	210.00	20.00	2
4		1	1998-11-01 00:00:00	1998-12-01 00:00:00	10.00	50.00	25.00		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
4	2004-10-25 09:33:43	1700.00	2	1	1800.00	2
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
7	1998-11-04 14:24:00	30.00	4	4	40.00	1
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
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

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;
```

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

```
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;
```

Sample Call

```
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.CustomerID = Customers.ID

AND Bids.AuctionID = Auctions.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
```

```
SELECT * FROM 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;
```

```
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)
```

ItemID	BidID	CustomerID	MonitorID	Time	BoughtBy	Amount	Email	ItemName	ItemType	MonitorName
3	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;

```
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 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
```

```
SELECT SUM(Amount) AS Revenue, COUNT(Amount) AS ItemsSold
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

```
Sql> 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

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

```
ORDER BY Revenue DESC LIMIT 10
```

Sample Call

```
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 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;
```

```
SELECT * FROM Bids WHERE AuctionID = 3
₩ •
         Query Favorites
                                   Query History
ID
     Time
                               Amount
                                          CustomerID
                                                       AuctionID
                                                                   MaxBid
                                                                              ItemID
   6 2015-08-08 09:00:00
                                   600.00
                                                     4
                                                                 3
                                                                      800.00
                                                                                    3
```

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 (

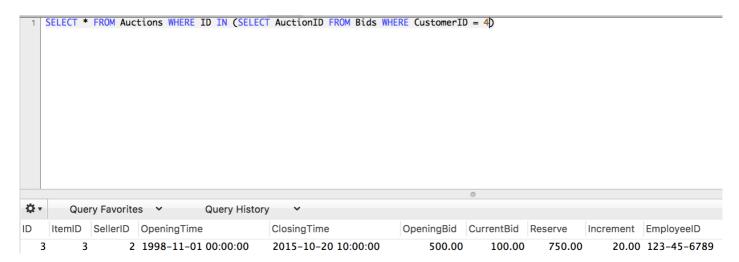
SELECT AuctionID

FROM Bids

WHERE CustomerID = ?custID

);

COMMIT;
```



Items sold by a given seller and corresponding auction info

Format

Parameters:

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

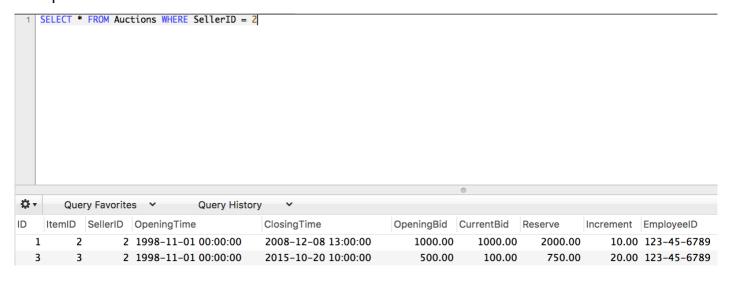
```
START TRANSACTION;

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 (

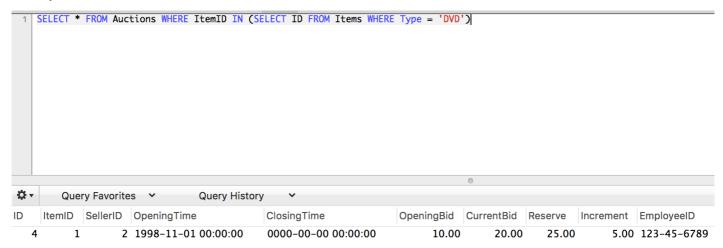
SELECT ID

FROM Items

WHERE Type = ?itemType
);

COMMIT;
```

Sample Call



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

```
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



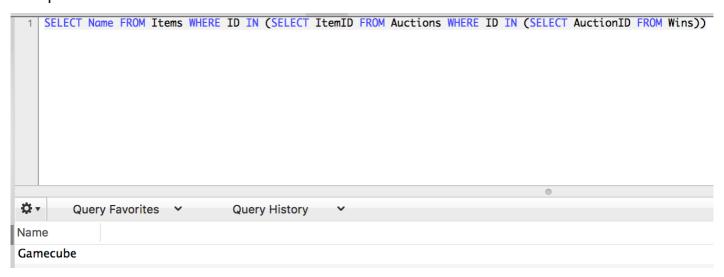
Best-Seller list

```
START TRANSACTION;

SELECT Name
FROM Items
WHERE ID IN (
SELECT ItemID
FROM Auctions
WHERE ID IN (
SELECT AuctionID
FROM Wins
```

```
)
);
COMMIT;
```

Sample Call



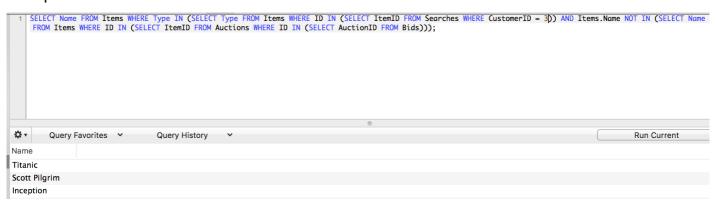
Personalized item suggestion list

```
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

Sample Call



A view for customer representatives to read employee information, 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;
```



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;
```

