3.1 Manager Level Transactions

Add Employee Information:

Parameters:
SOC- The social security # of the employee (Integer)
F_NAME- The first name of the employee (String)
L_Name- The last name of the employee (String)
ADDR- The address of the employee (String)
CITY- The city the employee lives in (String)
STATE- The state the employee lives in (String)
ZIP- The zipcode of the employee (String)
TELE- The phone number of the employee (String)
EMAIL- The email address of the employee (String)
GENDER- The gender of the employee (String)
DOB- The date the person was employee (Date)
E_ID- The employee id of this employee (Integer)
START- The start date of this employee (Date)
RATE- The hourly rate of this employee (Integer)
MNGR- The manager of this employee (Integer)
JOB- The role of this employee (String)

```
/* Add their personal information */
Insert Into Person(SSN, Last_Name, First_Name, Address, City, State, Zip_Code, Telephone,
Email_Address, Gender, Date_Of_Birth)
Values (SOC, L_NAME, F_NAME, ADDR, CITY, STATE, ZIP, TELE, EMAIL, GENDER, DOB);

/* Add their employee information*/
Insert Into Employee(SSN, Employee_Id, Role, Start_Date, Hourly_Rate)
Values (SOC, E_ID, JOB, START, RATE);

/* Add their manager*/
Insert Into Has_Manager(Employee, Manager)
Values(E_ID, MNGR);
```

```
/* EXAMPLE EXECUTION */
Insert Into Person(SSN, Last_Name, First_Name, Address, City, State, Zip_Code, Telephone,
Email_Address, Gender, Date_Of_Birth)
Values (111222333, 'Thomas', 'Mike', '43 Apple Apt, Maple Street', 'Stony Brook', 'NY', '11790',
'6314648998', ‘M.Thomas@Stonybrook.edu’, ‘M’, ‘1980/10/10’’);

Insert into Employee(Employee_Id,SSN,Start_Date,Hourly_Rate,Role)
Values(111221,111222333,'2011-4-10',20,'Customer Representative');

Insert Into Has_Manager(Employee, Manager)
Values (111221, 111220);
```

Edit Employee Information:

Parameters:
F_NAME- The first name of the employee (String)
L_Name- The last name of the employee (String)
ADDR- The address of the employee (String)
CITY- The city the employee lives in (String)
STATE- The state the employee lives in (String)
ZIP- The zipcode of the employee (String)
TELE- The phone number of the employee (String)
EMAIL- The email address of the employee (String)
GENDER- The gender of the employee (String)
DOB- The date the person was employee (Date)
E_ID- The employee id of this employee (Integer)
START- The start date of this employee (Date)
RATE- The hourly rate of this employee (Integer)
MNGR- The manager of this employee (Integer)
JOB- The role of this employee (String)

```
/* Get the social security number of this employee */
Select SSN
From Employee
Where Employee_Id = E_ID
```

```
/* Update Personal Information (Note: SOC is obtained by querying the employee table)*/
Update Person
Set First_Name = F_NAME, Last_Name = L_NAME, Address = ADDR, City = CITY, State = STATE, Zip_Code = ZIP, Telephone = TELE, Email_Address = EMAIL, Gender = GENDER, Date_Of_Birth = DOB
Where SSN = SOC
```

```
/* Update Employee Information */
Update Employee
Set Start_Date = START, Hourly_Rate = RATE, Role = JOB
Where Employee_Id = E_ID
```

```
/* Update Manager information */
Update Has_Manager
Set Manager = MNGR
Where Employee = E_ID
```

```
/* EXAMPLE EXECUTION */
Select SSN
From Employee
Where Employee_Id = 111221
Result: 111222333

Update Person
Set First_Name = ‘Mike’, Last_Name = ‘Thomas’, Address = ‘43 Apple Apt, Maple Street'’, City = ‘Stony Brook’, State = ‘NY’, Zip_Code = ‘11790’, Telephone = ''6314648998'', Email_Address = ‘M.Thomas@Stonybrook.edu’, Gender = ‘M’, Date_Of_Birth = ‘1990/10/10’’
Where SSN = 111222333

Update Employee
Set Start_Date = ‘2013/11/15’, Hourly_Rate = 30, Role = ‘Customer Representative’
Where Employee_Id = 111221

Update Has_Manager
Set Manager = 111220
Where Employee = 111221
```

Delete Employee:

Parameters:
E_ID- The employee id of this employee (Integer)

```
/* Get the social security number of this employee */
Select SSN
From Employee
Where Employee_Id = E_ID
```

```
/* Delete the employee  (NOTE: SOC is obtained by querying the employee table)*/
Delete From Person
Where SSN = SOC
```

/* EXAMPLE EXECUTION */

```
Select SSN
From Employee
Where Employee_ID = 111220
```

Result: 111444111

```
Delete From Person
Where SSN = 1114441111
```

NOTE:

When deleting from person table, it will cascade to delete the employee entity from the employee table.

Obtain a Sales Report for a Particular Month:

Parameters:
T_MONTH - The Month to obtain a sales report for (Integer)

```
/* Obtain the Sales Report */
SELECT p.Transaction_Id, p.Advertisement, p.Date as Date_of_Purchase, p.Number_Of_Units,
p.Account, a.Employee, a.Type, a.Company, a.Item_Name, a.Unit_Price, a.Available_Units,
a.Content, a.Date as Date_Posted
FROM purchase p, advertisement a
WHERE p.Advertisement = a.Advertisement_Id and MONTH(p.Date) = T_MONTH
```

EXAMPLE EXECUTION:

```
SELECT p.Transaction_Id, p.Advertisement, p.Date as Date_of_Purchase, p.Number_Of_Units,
p.Account, a.Employee, a.Type, a.Company, a.Item_Name, a.Unit_Price, a.Available_Units,
a.Content, a.Date as Date_Posted
FROM purchase p, advertisement a
WHERE p.Advertisement = a.Advertisement_Id and MONTH(p.Date) = 4
```

RESULTS:

```
[200010001    33331    2011-04-22 00:00:00    1    90010101    111221    car    Ford
2012-Mustang    22000    30    Ford Mustang! First 10 cutomers get a 10% Discount!
2011-04-10 00:00:00]
[200010002    33332    2011-04-23 00:00:00    2    90010101    111222    clothing    GAP
Superman Shirt    5    100    Just $5!!!!!!!    2011-04-10 00:00:00]
[200010003    33332    2011-04-23 00:00:00    4    90010102    111222    clothing    GAP
Superman Shirt    5    100    Just $5!!!!!!!    2011-04-10 00:00:00]
]200010004    33332    2011-04-23 00:00:00    2    90010103    111222    clothing    GAP
Superman Shirt    5    100    Just $5!!!!!!!    2011-04-10 00:00:00]
```

Product a comprehensive list of all items being advertised on the site:

Parameters:
none

```
/* Create a list of items being advertised */
SELECT Company,Type, Item_Name,Unit_Price,Available_Units,Content,
Advertisement_Id,Date as Date_Posted, Employee as Posted_By
FROM advertisement
ORDER BY Company, Type, Item_Name
```

EXAMPLE EXECUTION:

```
SELECT Company,Type, Item_Name,Unit_Price,Available_Units,Content,
Advertisement_Id,Date as Date_Posted, Employee as Posted_By
FROM advertisement
ORDER BY Company, Type, Item_Name
```

RESULTS:

```
[Ford car 2012-Mustang 22000 30 Ford Mustang! First 10 cutomers get a 10% Discount! 33331 2011-04-10 00:00:00 111221]
[GAP clothing Superman Shirt 5 100 Just $5!!!!!!! 33332 2011-04-10 00:00:00 111222]
```

Produce a list of transactions by item name or customer name:

Parameters:
ITEM - Name of the item to find (String)

```
/*produce list by item name*/
SELECT p.* from purchase p, advertisement a
WHERE p.Advertisement = a.Advertisement_Id AND a.Item_Name = ITEM
```

Example Query:

```
SELECT p.* from purchase p, advertisement a
WHERE p.Advertisement = a.Advertisement_Id AND a.Item_Name = '2012-Mustang'
```

Results:

```
[200010001    2011-04-22 00:00:00    33331    1    90010101]
```

Parameters:
F_NAME - Customer’s First Name (String)
L_NAME - Customer’s Last Name (String)

```
/*Construct list from person name*/
select pu.* from purchase pu, account a, user u, person pe
where pe.First_Name = F_NAME and pe.Last_Name = L_NAME and pe.SSN = u.SSN and
u.User_Id = a.User_Id and a.Account_Number = pu.Account
```

Example:

```
select pu.* from purchase pu, account a, user u, person pe
where pe.First_Name = 'alice' and pe.Last_Name = 'mckeeny' and pe.SSN = u.SSN and
u.User_Id = a.User_Id and a.Account_Number = pu.Account
```

RESULTS:

```
[200010001    2011-04-22 00:00:00    33331    1    90010101]
[200010002    2011-04-23 00:00:00    33332    2    90010101]
```

Product a comprehensive listing of revenue generated by an item, item type, or customer:

Parameters:
ITEM - ID of the Item (Integer)

```
/*Generate a listing by Item*/
select SUM(p.number_of_units * a.unit_price) as Revenue, SUM(p.number_of_units) as
Units_Sold, Count(*) as Number_Of_Sales, a.Unit_Price
from purchase p, advertisement a
where p.Advertisement = a.Advertisement_Id and p.Advertisement = ITEM
group by p.Advertisement
```

Parameters:
ITEM - Type of Item (String)

```
/*Generate a listing by item Type*/
select SUM(p.number_of_units * a.unit_price) as Revenue, Count(*) as Number_Of_Sales,
SUM(p.number_of_units) as Quantity_Sold
from purchase p, advertisement a
where p.Advertisement = a.Advertisement_Id and a.Type = ITEM
group by a.Type
```

Parameters:
CUSTOMER - ID of Customer (Integer)

```
/*Generate a listing by customer*/
select SUM(p.number_of_units * a.unit_price) as Revenue, COUNT(*) as
Number_Of_Purchases, COUNT(Distinct a.Advertisement_Id) as Distinct_Items_Purchased,
COUNT(DISTINCT a.type) as Types_Of_Items_Purchased
from purchase p, advertisement a, account ac
where p.Advertisement = a.Advertisement_Id and p.Account = ac.Account_Number and
ac.User_Id = CUSTOMER
group by ac.User_Id
```

Example Query:

```
select SUM(p.number_of_units * a.unit_price) as Revenue, SUM(p.number_of_units) as
Units_Sold, Count(*) as Number_Of_Sales, a.Unit_Price
from purchase p, advertisement a
where p.Advertisement = a.Advertisement_Id and p.Advertisement = 33331
group by p.Advertisement
```

Result:

```
22000    1    1    22000
```

Example Query:

```
select SUM(p.number_of_units * a.unit_price) as Revenue, Count(*) as Number_Of_Sales,
SUM(p.number_of_units) as Quantity_Sold
from purchase p, advertisement a
where p.Advertisement = a.Advertisement_Id and a.Type = ‘car’
group by a.Type
```

Result:

```
22000    1    1
```

Example Query:

```
select SUM(p.number_of_units * a.unit_price) as Revenue, COUNT(*) as
Number_Of_Purchases, COUNT(Distinct a.Advertisement_Id) as Distinct_Items_Purchased,
COUNT(DISTINCT a.type) as Types_Of_Items_Purchased
from purchase p, advertisement a, account ac
where p.Advertisement = a.Advertisement_Id and p.Account = ac.Account_Number and
ac.User_Id = 100100101
group by ac.User_Id
```

Result:

```
22010    2    2    2
```

Determine which customer representative generated the most revenue:

Parameters:
none

```
/*Find the most profitable customer representative*/
select MAX(r.Revenue) as Revenue, Employee
from (
          select SUM(p.number_of_units * a.unit_price) as Revenue, a.Employee
          from purchase p, advertisement a
          where p.Advertisement = a.Advertisement_Id
          group by a.Employee
) as r
where r.Revenue = (select MAX(d.Revenue) from (
             select SUM(p.number_of_units * a.unit_price) as Revenue, a.Employee
             from purchase p, advertisement a
             where p.Advertisement = a.Advertisement_Id
             group by a.Employee
   ) as d
)
```

Example Query:

```
select MAX(r.Revenue) as Revenue, Employee
from (
          select SUM(p.number_of_units * a.unit_price) as Revenue, a.Employee
          from purchase p, advertisement a
          where p.Advertisement = a.Advertisement_Id
          group by a.Employee
) as r
where r.Revenue = (select MAX(d.Revenue) from (
             select SUM(p.number_of_units * a.unit_price) as Revenue, a.Employee
             from purchase p, advertisement a
             where p.Advertisement = a.Advertisement_Id
             group by a.Employee
   ) as d
)
```

Results:

```
22000    111221
```

Determine which customer generated the most revenue:

Parameters:
None

```
/*Find the customer who generated the most revenue*/
select MAX(r.Revenue) as Revenue, a.Account_Number, a.User_Id
from (
    select SUM(p.number_of_units * a.unit_price) as Revenue, p.Account
    from purchase p, advertisement a
    where p.Advertisement = a.Advertisement_Id
    group by p.Account
) as r, account a
where r.Account = a.Account_Number
and r.Revenue = (select MAX(d.Revenue)
    from (
        select SUM(p.number_of_units * a.unit_price) as Revenue, p.Account
        from purchase p, advertisement a
        where p.Advertisement = a.Advertisement_Id
        group by p.Account
    ) as d
)
```

Sample Query:

Same as above, the query contains no parameters.

Results:

```
22010    90010101    100100101
```

Produce a list of most active items:

Parameters:
None

```
/*List the items in decreasing order of activity*/
Select Advertisement as Advertisement_Id, COUNT(*) as Number_Of_Sales,
SUM(Number_Of_Units) as Number_Of_Units
from purchase
group by advertisement
order by Number_Of_Units DESC, Number_Of_Sales DESC
```

Example Query:

Same as above, there are no parameters

Results:

```
33332    3    8
33331    1    1
```

Produce a list of all users who have purchased a particular item:

Parameters:
A_ID - The id of the advertisement id of the item being sold (Integer)

```
/* Get the userid of all customers who purchased an item */
Select A.User_Id
From Purchase P, Account A
Where P.Advertisement = A_ID
And P.Account = A.Account_Number
```

```
/* EXAMPLE EXECUTION */
Select A.User_Id
From Purchase P, Account A
Where P.Advertisement = 33332
And P.Account = A.Account_Number
```

Result: ‘100100101’, ‘100100102’, ‘100100103’

<u>Produce a list of all items for a given company:</u>

Parameters:
C_NAME- The name of the company you which to find items for (String)

```
Select *
From Advertisement A
Where A.Company = C_NAME
```

```
/* EXAMPLE EXECUTION */
Select *
From Advertisement A
Where A.Company = ‘Ford’
```

Result: '33331', '111221', 'car', '2011-04-10 00:00:00', 'Ford', '2012-Mustang', '22000', '30', 'Ford Mustang! First 10 cutomers get a 10% Discount!'

3.2 Customer- Rep Level Transactions

Create an advertisement:

Parameters:
AD_ID - Advertisement ID (Integer)
EMP - Employee ID (Integer)
TYP - Item Type (String)
COM - Company (String)
NAM - Item Name (String)
COST - Item Price Per Unit (Integer)
MANY - Number of Available Units (Integer)
DESC - Description of Item (String)

```
/* Add the advertisement */
Insert Into Advertisement
Values (AD_ID, EMP, TYP, NOW(), COM, NAM, COST, MANY, DESC);
```

Example Query:

```
Insert Into Advertisement
Values (33331, 111221, ‘car’, NOW(), ‘Ford’, ‘2012-Mustang’, 22000, 30, ‘Ford Mustang! First 10
cutomers get a 10% Discount!');
```

Delete an advertisement:

Parameters:
AD_ID - Advertisement ID to delete (Integer)

```
/*Delete the Advertisement*/
Delete From Advertisement
Where Advertisement_Id = AD_ID
```

Sample Query:

```
Delete From Advertisement
Where Advertisement_Id = 33331
```

Record a transaction:

Parameters:
T_ID- Transaction ID (Integer)
TIME - Time transaction took place (DateTime)
ADV - Advertisement ID (Integer)
NUM_U - Number of Units sold (Integer)
ACC - Account items purchased on (Integer)

```
/*Add the transaction to the transaction table*/
Insert Into Purchase
Values (T_ID,TIME,ADV,NUM_U,ACC);
```

SAMPLE QUERY:

```
Insert Into Purchase
Values (200010001,’2011-04-22’,33331,1,90010101)
```

Add user Information:

Parameters:
SOC- The social security # of the user (Integer)
F_NAME- The first name of the user (String)
L_Name- The last name of the user (String)
ADDR- The address of the user (String)
CITY- The city the user lives in (String)
STATE- The state the user lives in (String)
ZIP- The zipcode of the user (String)
TELE- The phone number of the user (String)
EMAIL- The email address of the user (String)
GENDER- The gender of the user (String)
DOB- The date the person was user (Date)

```
/* Add their personal information */
Insert Into Person(SSN, Last_Name, First_Name, Address, City, State, Zip_Code, Telephone,
Email_Address, Gender, Date_Of_Birth)
Values (SOC, L_NAME, F_NAME, ADDR, CITY, STATE, ZIP, TELE, EMAIL, GENDER, DOB);
```

```
/* Add their user information */
Insert Into User (SSN)
Values (SOC);
```

/* EXAMPLE EXECUTION */

```
Insert Into Person(SSN, Last_Name, First_Name, Address, City, State, Zip_Code, Telephone,
Email_Address, Gender, Date_Of_Birth)
Values (100100101, ‘McKeeny’, ‘Alice’, 'Chapin Apt 2010, Health Drive', ‘Stony Brook', ‘NY’,
‘11790’, '4314649881', 'alice@blah.com', ‘F’, ‘1998/10/10’’);
```

```
Insert Into User(SSN)
Values(100100101);
```

NOTE:

User_ID is an auto increment field and is automatically assigned. Rating defaults to 0 when users are created.

<u>Edit user information:</u>

Parameters:
F_NAME- The first name of the user (String)
L_Name- The last name of the user (String)
ADDR- The address of the user (String)
CITY- The city the user lives in (String)
STATE- The state the user lives in (String)
ZIP- The zipcode of the user (String)
TELE- The phone number of the user (String)
EMAIL- The email address of the user (String)
GENDER- The gender of the user (String)
DOB- The date the person was user (Date)
U_ID - The user id of the user
RTNG - The Rating of the user

```
/* Get the social security number of this employee */
Select SSN
From User
Where User_Id = U_ID
```

```
/* Update Personal Information (Note: SOC is obtained by querying the employee table)*/
Update Person
Set First_Name = F_NAME, Last_Name = L_NAME, Address = ADDR, City = CITY, State =
STATE, Zip_Code = ZIP, Telephone = TELE, Email_Address = EMAIL, Gender = GENDER,
Date_Of_Birth = DOB
Where SSN = SOC
```

```
/* Update user information */
Update User
Set Rating = RTNG
Where User_Id = U_ID
```

```
/* EXAMPLE EXECUTION */
Select SSN
From User
Where User_Id = 100100101
```

Result: 100100101

```
Update Person
Set First_Name = ‘Alice’, Last_Name = ‘McKeeny’, Address = 'Chapin Apt 2010, Health Drive',
City = ‘Stony Brook’, State = ‘NY’, Zip_Code = ‘11790’, Telephone = '4314649881',
Email_Address = 'alice@blah.com', Gender = ‘F’, Date_Of_Birth = '1988/10/10'
Where SSN = 100100101
```

```
Update User
Set Rating = 8
Where User_Id = 100100101
```

Delete user information:

Parameters:
U_ID- The user Id of the user

```
/* Get the ssn of this user */
Select SSN
From User
Where User_Id = U_ID

/* Delete this user  (NOTE: SOC is obtained by querying the user table)*/
Delete From Person
Where SSN = SOC
```

/* EXAMPLE EXECUTION */

```
Select SSN
From User
Where User_Id = 100100101
```

Result: 100100101

```
Delete From Person
Where SSN = 100100101
```

NOTE:

Deleting from the person table will cascade to delete the user entity as well. We are going to require that a user cannot be deleted if they own a circle. They must first transfer circle ownership or delete the circle themselves.

Produce a user mailing list:

```
Select P.Email_Address
From Person P, User u
Where u.SSN = P.SSN
AND Not P.Email_Address is NULL
```

/* EXAMPLE EXECUTION */

```
Select P.Email_Address
From Person P, User u
Where u.SSN = P.SSN
AND Not P.Email_Address is NULL
```

Result: 'alice@blah.com', 'bob@blah.com', 'elisa@blah.com', 'kelly@blah.com', 'wendy@blah.com', 'den@blah.com', 'patnor@blahblah.com', 'chuck@blah.com', 'brad@blah.com', 'jennycool123@blah.com'

Produce a list of item suggestions for a customer based on past transactions / produce a personal item suggestion list:

Parameters:
USER_ID - User Id to create the item suggestions for (integer)

```
/*Generate a list of suggestions based on past transactions*/
Select a.*
from advertisement a, (
        select a.*
        from purchase p, advertisement a, account ac
        where ac.User_Id = USER_ID and ac.Account_Number = p.Account and
        a.advertisement_id = p.Advertisement
) as past
where a.Type = past.Type
```

Parameteres:
USER_ID - User Id to create the item suggestions for (integer)

```
/*Generate a list of suggestions based on user preferences*/
Select a.*
from advertisement a, user_preferences up
where up.Id = USER_ID and a.Type = up.Preference
```

SAMPLE QUERY

```
Select a.*
from advertisement a, (
select a.*
from purchase p, advertisement a, account ac
where ac.User_Id = 100100101 and ac.Account_Number = p.Account and a.advertisement_id = p.Advertisement
) as past
where a.Type = past.Type
```

RESULT

```
[33331    111221    car    2011-04-10 00:00:00    Ford    2012-Mustang    22000    30    Ford Mustang! First 10 cutomers get a 10% Discount!]
[33332    111222    clothing    2011-04-10 00:00:00    GAP    Superman Shirt    5    100    Just $5!!!!!!!]
```

SAMPLE QUERY

```
Select a.*
from advertisement a, user_preferences up
where up.Id = 100100102 and a.Type = up.Preference
```

RESULT

```
[33332    111222    clothing    2011-04-10 00:00:00    GAP    Superman Shirt    5    100    Just $5!!!!!!!]
```

3.3 Customer Level Transactions

Create a Circle:

Parameters:

Circle_Id - The id of the new circle, INT
Circle_Name - The name of the new circle, VARCHAR
Owner_Of_Circle - The userId of the circle creator, INT
Type - Description of the circles primary function, VARCHAR

Statement: insert into Circle values(?, ?, ?, ?);

```
mysql> select * from Circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
+-----------+--------------------+-----------------+---------+
6 rows in set (0.13 sec)

mysql> insert into Circle values(8007, 'hw2test', 100100101, 'test');
Query OK, 1 row affected (0.11 sec)

mysql> select * from Circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (0.05 sec)
```

Search for a user:

Parameters:
F_NAME - The first name (or part of the first name) of the user
L_NAME - The last name (or part of the last name) of the user

```
/* Get all users whose names are similar to the first and last name */
Select P.First_Name, P.Last_Name, U.User_Id
From Person, User
Where P.First_Name like ‘%F_NAME%’
OR P.Last_Name like ‘%L_NAME%’’
```

/* EXAMPLE EXECUTION */

```
Select P.First_Name, P.Last_Name, U.User_Id
From Person P, User U
Where (P.First_Name like '%ck%'
OR P.Last_Name like '%Nor%')
AND P.SSN = U.SSN
```

Result: {'Patrick', 'Norris', '100100107'}, {'Chuck', 'Stewart', '100100108'}, {'Brad', 'Norton', '100100109'}

Add a user to a circle / join a circle:

Parameters:
C_ID - The id of the circle to add this user to (Integer)
U_ID - The id of the user being added to the circle (Integer)

```
Insert Into AddedTo(Circle_Id, User_Id)
Values(C_ID, U_ID);
```

/* EXAMPLE EXECUTION */

```
Insert Into AddedTo(Circle_Id, User_Id)
Values(8001, 100100101);
```

NOTE:

In the case of adding a user to a circle, it is assumed that the id of the circle given to this method is the id of a circle the calling user owns.

<u>Make a post:</u>

Parameters -

- **Post_Id - The new post identifier, INT**
- **Date - The date the post was created, DATETIME (default = NOW())**
- **Content - The text contained in the post,VARCHAR**
- **Comment_Count - Number of comments on this post, INT, (default = 0)**
- **Author - The userId of the user who created the post, INT**

Statement - insert into post values(?, NOW(), ?, 0, ?, ?);

```
mysql> select * from post;
+---------+---------------------+-----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content               | Comment_Count | Circle | Author    |
+---------+---------------------+-----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D       |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!      |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |             0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!   |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(        |             0 |   8004 | 100100104 |
+---------+---------------------+-----------------------+---------------+--------+-----------+
5 rows in set (0.25 sec)

mysql> insert into post values(20116, NOW(), 'hw2test', 0, 8001, 100100105);
Query OK, 1 row affected (0.17 sec)

mysql> select * from post;
+---------+---------------------+-----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content               | Comment_Count | Circle | Author    |
+---------+---------------------+-----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D       |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!      |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |             0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!   |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(        |             0 |   8004 | 100100104 |
|   20116 | 2013-11-03 16:56:19 | hw2test               |             0 |   8001 | 100100105 |
+---------+---------------------+-----------------------+---------------+--------+-----------+
6 rows in set (0.27 sec)
```

Comment on a post:

Parameters -

Comment_Id - The comment identifier, INT
Date - Date of the comment. DATETIME (default = NOW())
Content - Text included in the comment, VARCHAR
Post - The associated PostId, INT
Author - The creaters UserId, INT

Statement - insert into comment values(?, NOW(), ?, ?, ?);

```
mysql> select * from comment;
+------------+---------------------+-------------------------+-------+-----------+
| Comment_Id | Date                | Content                 | Post  | Author    |
+------------+---------------------+-------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)       | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!             | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!  | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!         | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | Congrats!               | 20114 | 100100109 |
+------------+---------------------+-------------------------+-------+-----------+
6 rows in set (0.30 sec)

mysql> insert into comment values(900007, NOW(), 'hw2test', 20116, 100100105);
Query OK, 1 row affected (0.08 sec)

mysql> select * from comment;
+------------+---------------------+-------------------------+-------+-----------+
| Comment_Id | Date                | Content                 | Post  | Author    |
+------------+---------------------+-------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)       | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!             | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!  | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!         | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | Congrats!               | 20114 | 100100109 |
|     900007 | 2013-11-03 16:59:16 | hw2test                 | 20116 | 100100105 |
+------------+---------------------+-------------------------+-------+-----------+
7 rows in set (0.07 sec)
```

Like a post:

Parameters:
P_ID - The id of the post this user likes (Integer)
U_ID - The id of the user who likes this post (Integer)

```
Insert Into user_likes_post(User, Post)
Values(U_ID, P_ID);
```

```
/* EXAMPLE EXECUTION */
Insert Into user_likes_post(User, Post)
Values(100100101, 20111);
```

<u>Like a comment:</u>

Parameters:
C_ID - The id of the comment this user likes (Integer)
U_ID - The id of the user who likes this comment (Integer)

```
Insert Into user_likes_comment(User, Comment)
Values(U_ID, C_ID);
```

/* EXAMPLE EXECUTION */

```
Insert Into user_likes_comment(User, Comment)
Values(100100101, 900002);
```

Remove a user from a circle:

Parameters-

User_Id - The UserId of the circle member to remove, INT
Circle_Id - The Circle to remove him from, INT

Statement - delete from addedto where User_Id = ? and Circle_Id = ?;

```
mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100102 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
+-----------+-----------+
20 rows in set (0.07 sec)
```

```
mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (0.07 sec)

mysql> delete from addedto where User_Id = 100100102 and Circle_Id = 8001;
Query OK, 1 row affected (0.12 sec)

mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
+-----------+-----------+
19 rows in set (0.06 sec)
```

<u>Remove a post:</u>

Parameters -

> **Circle - The circle identifier for the circle to remove the post from, INT**
> **Post_Id - The post identifier for the post to remove, INT**

Statement - delete from post where Circle = ? and Post_Id = ?;

```
mysql> select * from post;
+---------+---------------------+-----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content               | Comment_Count | Circle | Author    |
+---------+---------------------+-----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D       |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!      |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |             0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!   |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(        |             0 |   8004 | 100100104 |
+---------+---------------------+-----------------------+---------------+--------+-----------+
5 rows in set (0.06 sec)

mysql> delete from post where Circle = 8001 and Post_Id = 20113;
Query OK, 1 row affected (0.06 sec)

mysql> select * from post;
+---------+---------------------+---------------------+---------------+--------+-----------+
| Post_Id | Date                | Content             | Comment_Count | Circle | Author    |
+---------+---------------------+---------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D     |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!    |             3 |   8006 | 100100106 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!! |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(      |             0 |   8004 | 100100104 |
+---------+---------------------+---------------------+---------------+--------+-----------+
4 rows in set (0.06 sec)
```

<u>Remove a comment:</u>

Parameters -

Comment_Id - The identifier for the comment to remove, INT
author - The UserId of the comment to remove, INT

Statement - delete from comment where Comment_Id = ? and author = ?;

```
mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (0.06 sec)

mysql> select * from comment;
+------------+---------------------+--------------------------+-------+-----------+
| Comment_Id | Date                | Content                  | Post  | Author    |
+------------+---------------------+--------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)        | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!              | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!   | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!          | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | Congrats!                | 20114 | 100100109 |
|     900007 | 2013-11-03 16:59:16 | hw2test                  | 20116 | 100100105 |
+------------+---------------------+--------------------------+-------+-----------+
7 rows in set (0.05 sec)
```

```
mysql> select * from post;
+---------+---------------------+-----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content               | Comment_Count | Circle | Author    |
+---------+---------------------+-----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D       |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!      |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |             0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!   |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(        |             0 |   8004 | 100100104 |
|   20116 | 2013-11-03 16:56:19 | hw2test               |             0 |   8001 | 100100105 |
+---------+---------------------+-----------------------+---------------+--------+-----------+
6 rows in set (0.06 sec)

mysql> delete from comment where Comment_Id = 900007 and author = 100100105;
Query OK, 1 row affected (0.07 sec)

mysql> select * from comment;
+------------+---------------------+--------------------------+-------+-----------+
| Comment_Id | Date                | Content                  | Post  | Author    |
+------------+---------------------+--------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)        | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!              | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!   | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!          | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | Congrats!                | 20114 | 100100109 |
+------------+---------------------+--------------------------+-------+-----------+
6 rows in set (0.05 sec)
```

Unlike a post:

Parameters:
U_ID - The id of the user unliking this post (Integer)
P_ID - The id of the post this user is unliking (Integer)

```
Delete from user_likes_post
Where User = U_ID
AND Post = P_ID
```

```
/* EXAMPLE EXECUTION */
Delete from user_likes_post
Where User = 100100101
AND Post = 201111
```

Unlike a comment:

Parameters:
U_ID - The user id of the user who unliked this comment (Integer)
C_ID - The id of the comment this user unliked (Integer)

```
Delete from user_likes_comment
Where User = U_ID
AND Comment = C_ID
```

```
/*  EXAMPLE EXECUTION */
Delete from user_likes_comment
Where User = 100100101
AND Comment = 900002
```

<u>Modify a post:</u>

Parameters -

Content - The new content of the post, VARCHAR
Post_Id - The identifier of the post to modify

Statement - update post set Content=? where Post_Id = ?;

```
mysql> select * from post;
+---------+---------------------+----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content              | Comment_Count | Circle | Author    |
+---------+---------------------+----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | Its Snowing! :D      |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!     |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |            0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!  |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(       |             0 |   8004 | 100100104 |
|   20116 | 2013-11-03 16:56:19 | hw2test              |             0 |   8001 | 100100105 |
+---------+---------------------+----------------------+---------------+--------+-----------+
6 rows in set (0.05 sec)

mysql> update post set Content='hw2test' where Post_Id = 20111;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from post;
+---------+---------------------+----------------------+---------------+--------+-----------+
| Post_Id | Date                | Content              | Comment_Count | Circle | Author    |
+---------+---------------------+----------------------+---------------+--------+-----------+
|   20111 | 2011-10-10 00:00:00 | hw2test              |             2 |   8003 | 100100105 |
|   20112 | 2011-11-10 00:00:00 | GO Seawolves!!!!     |             3 |   8006 | 100100106 |
|   20113 | 2011-11-10 00:00:00 | Arrgh! hate facebook! |            0 |   8001 | 100100103 |
|   20114 | 2011-12-10 00:00:00 | MackBook Finally!!!  |             1 |   8001 | 100100104 |
|   20115 | 2011-12-10 00:00:00 | ritchie RIP :(       |             0 |   8004 | 100100104 |
|   20116 | 2013-11-03 16:56:19 | hw2test              |             0 |   8001 | 100100105 |
+---------+---------------------+----------------------+---------------+--------+-----------+
6 rows in set (0.06 sec)
```

Modify a comment:

Parameters -

Content - The modified contents to insert back into the comment, VARCHAR
Comment_Id - The identifier of the comment to modify

Statement - update comment set Content=? where Comment_Id = ?;

```
mysql> select * from comment;
+------------+---------------------+-------------------------+-------+-----------+
| Comment_Id | Date                | Content                 | Post  | Author    |
+------------+---------------------+-------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)       | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!             | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!  | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!         | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | Congrats!               | 20114 | 100100109 |
+------------+---------------------+-------------------------+-------+-----------+
6 rows in set (0.50 sec)

mysql> update comment set Content='hw2test' where Comment_Id = 900006;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from comment;
+------------+---------------------+-------------------------+-------+-----------+
| Comment_Id | Date                | Content                 | Post  | Author    |
+------------+---------------------+-------------------------+-------+-----------+
|     900001 | 2011-10-10 00:00:00 | Its beautiful! :)       | 20111 | 100100101 |
|     900002 | 2011-11-10 00:00:00 | Natures white blanket :D | 20111 | 100100107 |
|     900003 | 2011-11-10 00:00:00 | GO! GO! GO!             | 20112 | 100100104 |
|     900004 | 2011-11-10 00:00:00 | we totally owned them!  | 20112 | 100100103 |
|     900005 | 2011-12-10 00:00:00 | we won! We won!         | 20112 | 100100102 |
|     900006 | 2011-12-10 00:00:00 | hw2test                 | 20114 | 100100109 |
+------------+---------------------+-------------------------+-------+-----------+
6 rows in set (0.08 sec)
```

Delete a circle:

Parameters -

Circle_Id - The identifier of the circle to remove, INT

Statmemt - delete from circle where Circle_Id = ?;

```
mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
+-----------+--------------------+-----------------+---------+
6 rows in set (0.07 sec)

mysql> delete from circle where Circle_Id = 8001;
Query OK, 1 row affected (0.07 sec)

mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
+-----------+--------------------+-----------------+---------+
5 rows in set (0.09 sec)
```

<u>Modify a Circle:</u>

Parameters -

circle_Name - The new name of the circle to rename
Circle_Id - The identifier of the circle to rename

Statement - update circle set circle_NAME = ? where Circle_Id = ?;

```
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | My Friends         |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (2.11 sec)

mysql> update circle set circle_NAME = 'hw2test' where Circle_Id = 8001;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | hw2test            |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (0.05 sec)
```

Join a circle:

Parameters -

UserId - The user identifier for the user to insert
Circle_Id - The circle identifier for the circle to insert

Statement - insert into addedto values(?, ?);

```
mysql> select * from user;
+-----------+-----------+--------+
| SSN       | User_Id   | Rating |
+-----------+-----------+--------+
| 100100101 | 100100101 |      8 |
| 100100102 | 100100102 |      5 |
| 100100103 | 100100103 |      5 |
| 100100104 | 100100104 |      5 |
| 100100105 | 100100105 |      2 |
| 100100106 | 100100106 |      2 |
| 100100107 | 100100107 |      2 |
| 100100108 | 100100108 |      2 |
| 100100109 | 100100109 |      2 |
| 100100110 | 100100110 |      2 |
+-----------+-----------+--------+
10 rows in set (0.09 sec)

mysql> select * from circle;
+-----------+--------------------+-----------------+---------+
| Circle_Id | Circle_NAME        | Owner_Of_Circle | Type    |
+-----------+--------------------+-----------------+---------+
|      8001 | hw2test            |       100100101 | Friends |
|      8002 | Best Friends       |       100100102 | Friends |
|      8003 | StonyBrookGang     |       100100105 | Friends |
|      8004 | CSJunkies          |       100100107 | Group   |
|      8005 | Norris Family      |       100100109 | Family  |
|      8006 | Microsoft Groupies |       100100106 | Company |
|      8007 | hw2test            |       100100101 | test    |
+-----------+--------------------+-----------------+---------+
7 rows in set (0.07 sec)
```

```
mysql> select * from addedto
    -> ;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
+-----------+-----------+
19 rows in set (0.08 sec)
```

```
mysql> insert into addedto values(100100110, 8007);
Query OK, 1 row affected (0.71 sec)

mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
| 100100110 |      8007 |
+-----------+-----------+
20 rows in set (0.07 sec)
```

Unjoin a circle:

Parameters -

User_Id - the user identifier for the user unjoining a circle

Circle_Id - the circle identifier for the circle the user is unjoining from

Statement - delete from addedto where User_Id = ? and Circle_Id = ?;

```
mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
| 100100110 |      8007 |
+-----------+-----------+
20 rows in set (0.07 sec)

mysql> delete from addedto where User_Id = 100100110 and Circle_Id = 8007;
Query OK, 1 row affected (0.08 sec)
```

```
mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
+-----------+-----------+
19 rows in set (0.06 sec)
```

Send a message:

Parameters:
SENDER - The user id of the user sending this message (Integer)
RECEIVER - The user id of the user receiving this messages (Integer)
SUB - The subject of this message
MSG - The content of the message

```
Insert Into Message(Subject, Content, Sender, Receiver, Time)
Values(SUB, MSG, SENDER, RECEIVER, NOW());
```

/* EXAMPLE EXECUTION */

```
Insert into Message(Message_Id, Date, Subject, Content, Sender, Receiver)
Values (3001, '2011/10/10', 'hey!', 'Hey! Do u have assignment 1 questions?', 100100101,
100100102);
```

NOTE:

MessageId is auto increment so it is filled in automatically. The time the message is sent is inserted using the sql now() command.

Receive a message (Display user inbox):

Parameters:
U_ID - The id of the user who wants to view their inbox (Integer)

```
Select M.Date, M.Content, M.Subject, M.Sender, Message_Id
From Message M
Where M.Receiver = U_ID
```

/* EXAMPLE EXECUTION */

```
Select M.Date, M.Content, M.Subject, M.Sender, Message_Id
From Message M
Where M.Receiver = 100100102
```

Result: '2011-10-10 00:00:00', 'Hey! Do u have assignment 1 questions?', 'hey!', '100100101', '3001'

Delete a message:

Parameters:
M_ID - The id of the message you want to delete (Integer)

```
Delete from Message
Where Message_Id = M_ID
```

/* EXECUTION EXAMPLE */

```
Delete from Message
Where Message_Id = 3001
```

Purchase one or more copies of an advertised item:

Parameters:
T_ID- Transaction ID (Integer)
ADV - Advertisement ID (Integer)
NUM_U - Number of Units sold (Integer)
ACC - Account items purchased on (Integer)

```
/*Add the transaction to the transaction table*/
Insert Into Purchase
Values (T_ID,NOW(),ADV,NUM_U,ACC);
```

SAMPLE QUERY:

```
Insert Into Purchase
Values (200010001,NOW(),33331,1,90010101)
```

Find all circles that a user is a part of:

Parameters -

User_Id - The user indentifier for the user in question

Statement - select Circle_Id from addedto where User_Id = ?;

```
mysql> select * from user;
+-----------+-----------+--------+
| SSN       | User_Id   | Rating |
+-----------+-----------+--------+
| 100100101 | 100100101 |      8 |
| 100100102 | 100100102 |      5 |
| 100100103 | 100100103 |      5 |
| 100100104 | 100100104 |      5 |
| 100100105 | 100100105 |      2 |
| 100100106 | 100100106 |      2 |
| 100100107 | 100100107 |      2 |
| 100100108 | 100100108 |      2 |
| 100100109 | 100100109 |      2 |
| 100100110 | 100100110 |      2 |
+-----------+-----------+--------+
10 rows in set (0.08 sec)
```

```
mysql> select * from addedto;
+-----------+-----------+
| User_Id   | Circle_Id |
+-----------+-----------+
| 100100101 |      8001 |
| 100100103 |      8001 |
| 100100104 |      8001 |
| 100100101 |      8002 |
| 100100102 |      8002 |
| 100100110 |      8002 |
| 100100105 |      8003 |
| 100100106 |      8003 |
| 100100103 |      8004 |
| 100100104 |      8004 |
| 100100107 |      8004 |
| 100100105 |      8005 |
| 100100108 |      8005 |
| 100100109 |      8005 |
| 100100110 |      8005 |
| 100100106 |      8006 |
| 100100107 |      8006 |
| 100100108 |      8006 |
| 100100109 |      8006 |
+-----------+-----------+
19 rows in set (0.06 sec)

mysql> select Circle_Id from addedto where User_Id = 100100101;
+-----------+
| Circle_Id |
+-----------+
|      8001 |
|      8002 |
+-----------+
2 rows in set (0.06 sec)
```

Get the account history of all of a user’s accounts:

Parameters:
USER_ID - Id of user whose account history to retrieve (Integer)

```
/*Retrieve the account history for all of a user’s accounts*/
Select ac.Account_Number, p.*, p.Number_Of_Units * a.Unit_Price as Total_Spent
from purchase p, advertisement a, account ac
where p.Advertisement = a.Advertisement_Id and p.Account = ac.Account_Number and
ac.User_Id =USER_ID
order by ac.Account_Number, p.Transaction_Id
```

EXAMPLE QUERY

```
Select ac.Account_Number, p.*, p.Number_Of_Units * a.Unit_Price as Total_Spent
from purchase p, advertisement a, account ac
where p.Advertisement = a.Advertisement_Id and p.Account = ac.Account_Number and
ac.User_Id = 100100102
order by ac.Account_Number, p.Transaction_Id
```

RESULTS

```
90010102    200010003    2011-04-23 00:00:00    33332    4    90010102    20
```

Get a best-seller list of items:

Parameters:
None

```
/*Get top 10 best-selling items*/
Select Advertisement as Advertisement_Id, COUNT(*) as Number_Of_Sales,
SUM(Number_Of_Units) as Number_Of_Units
from purchase
group by advertisement
order by Number_Of_Units DESC, Number_Of_Sales DESC
limit 10
```

EXAMPLE QUERY

Same as above because the query contains no parameters

RESULT

```
33332    3    8
33331    1    1
```