INSERT INTO USER\_ACCOUNT (UID, Gender, DOB, Name) VALUES

(1, 'Male', '1990-05-15', 'John Smith'),

(2, 'Female', '1985-10-25', 'Emily Johnson'),

(3, 'Male', '1988-03-07', 'Michael Brown'),

(4, 'Female', '1993-12-18', 'Jessica Davis'),

(5, 'Male', '1982-08-30', 'Christopher Wilson'),

(6, 'Female', '1995-07-22', 'Sarah Martinez'),

(7, 'Male', '1979-11-09', 'Daniel Anderson'),

(8, 'Female', '1987-04-12', 'Jennifer Taylor'),

(9, 'Male', '1991-09-03', 'Matthew Thomas'),

(10, 'Female', '1984-06-28', 'Laura Garcia'),

(11, 'Male', '1980-02-14', 'David Rodriguez'),

(12, 'Female', '1992-01-10', 'Ashley Hernandez'),

(13, 'Male', '1986-07-05', 'James Lopez'),

(14, 'Female', '1989-04-29', 'Mary Martinez'),

(15, 'Male', '1994-11-16', 'Joshua Gonzalez'),

(16, 'Female', '1983-08-08', 'Amanda Perez'),

(17, 'Male', '1981-03-21', 'Robert Sanchez'),

(18, 'Female', '1990-10-02', 'Melissa Lee'),

(19, 'Male', '1978-12-25', 'Christopher Young'),

(20, 'Female', '1996-09-19', 'Stephanie Scott'),

(21, 'Male', '1989-06-14', 'Justin King'),

(22, 'Female', '1982-01-03', 'Nicole Wright'),

(23, 'Male', '1993-04-26', 'Andrew Hill'),

(24, 'Female', '1980-11-11', 'Heather Flores'),

(25, 'Male', '1985-08-04', 'Brandon Green'),

(26, 'Female', '1991-05-27', 'Samantha Adams'),

(27, 'Male', '1979-02-18', 'Joseph Baker'),

(28, 'Female', '1986-07-12', 'Angela Mitchell'),

(29, 'Male', '1994-10-06', 'Tyler Carter'),

(30, 'Female', '1983-03-31', 'Rebecca Hall');

INSERT INTO USER\_RELATED\_USER (UID1, UID2, Type) VALUES

(1, 2, 'family'),

(2, 3, 'family'),

(3, 4, 'family'),

(4, 5, 'family'),

(5, 6, 'family'),

(6, 7, 'family'),

(7, 8, 'family'),

(8, 9, 'family'),

(9, 10, 'family'),

(10, 1, 'family'),

(11, 12, 'club'),

(12, 13, 'club'),

(13, 14, 'club'),

(14, 15, 'club'),

(15, 16, 'club'),

(16, 17, 'club'),

(17, 18, 'club'),

(18, 19, 'club'),

(19, 20, 'club'),

(20, 11, 'club'),

(21, 22, 'friends'),

(22, 23, 'friends'),

(23, 24, 'friends'),

(24, 25, 'friends'),

(25, 26, 'friends'),

(26, 27, 'friends'),

(27, 28, 'friends'),

(28, 29, 'friends'),

(29, 30, 'friends'),

(30, 21, 'friends');

INSERT INTO VOUCHER (VID, Date\_issued, Description, Status, Expiry\_date) VALUES

(1, '2024-03-01', 'Discount for Spa Treatment', 'Active', '2024-04-01'),

(2, '2024-03-02', 'Free Meal at Restaurant', 'Active', '2024-04-02'),

(3, '2024-03-03', '50% Off on Adventure Sports', 'Active', '2024-04-03'),

(4, '2024-03-04', 'Free Night Stay at Resort', 'Active', '2024-04-04'),

(5, '2024-03-05', 'Complimentary Breakfast Buffet', 'Active', '2024-04-05'),

(6, '2024-03-06', 'Spa Package for Two', 'Active', '2024-04-06'),

(7, '2024-03-07', 'Scuba Diving Lesson', 'Active', '2024-04-07'),

(8, '2024-03-08', 'Discount on Local Sightseeing Tour', 'Active', '2024-04-08'),

(9, '2024-03-09', 'Free Upgrade to Luxury Suite', 'Active', '2024-04-09'),

(10, '2024-03-10', '50% Off on Dinner Cruise', 'Active', '2024-04-10');

INSERT INTO RECOMMENDATION (CID, Text, Status, Filed\_date\_time, UID) VALUES

(1, 'Recommendation 1', 'Active',2024-03-01, 1),

(2, 'Recommendation 2', 'Active', 2024-03-02, 2),

(3, 'Recommendation 3', 'Active', 2024-03-03, 3),

(4, 'Recommendation 4', 'Active', 2024-03-04, 4),

(5, 'Recommendation 5', 'Active', 2024-03-05, 5),

(6, 'Recommendation 6', 'Active', 2024-03-06, 6),

(7, 'Recommendation 7', 'Active', 2024-03-07, 7),

(8, 'Recommendation 8', 'Active', 2024-03-08, 8),

(9, 'Recommendation 9', 'Active', 2024-03-09, 9),

(10, 'Recommendation 10', 'Active', 2024-03-10, 10);

INSERT INTO DAY\_PACKAGE (DID, Description, VID, UID, Date, ProductID) VALUES

(1, 'Beach Day', 1, 1, '2024-03-21', 100),

(2, 'Beach Day', 2, 2, '2024-03-21', 100),

(3, 'Beach Day', 3, 3, '2024-03-21', 100),

(4, 'Beach Day', 1, 4, '2024-03-21', 100),

(5, 'Beach Day', 2, 5, '2024-03-21', 100),

(6, 'Beach Day', 3, 6, '2024-03-21', 100),

(7, 'Mountain Hike', 1, 19, '2024-03-22', 101),

(8, 'Mountain Hike', 2, 20, '2024-03-22', 101),

(9, 'Mountain Hike', 3, 21, '2024-03-22', 101),

(10, 'Mountain Hike', 1, 22, '2024-03-22', 101),

(11, 'Mountain Hike', 2, 23, '2024-03-22', 101),

(12, 'Mountain Hike', 3, 24, '2024-03-22', 101),

(13, 'Mountain Hike', 1, 25, '2024-03-22', 101),

(14, 'Mountain Hike', 2, 26, '2024-03-22', 101),

(15, 'Beach Day', 3, 11, '2024-03-22', 100),

(16, 'Beach Day', 3, 12, '2024-03-22', 100),

(17, 'Beach Day', 2, 13, '2024-03-23', 100),

(18, 'Beach Day', 2, 14, '2024-03-24', 100);

(19, ‘Shopping Day’, 10, 15, ‘2024-03-25 00:00:00.000’, 103),

(20, ‘Shopping Day’, 10, 16, ‘2024-03-25 00:00:00.000’, 103),

(21, ‘Shopping Day’, 10, 17, ‘2024-03-25 00:00:00.000’, 103),

(22, ‘Mall Day, 5, 5, ‘2024-03-31 00:00:00.000’, 110),

(23, ‘Mall Day, 5, 6, ‘2024-03-31 00:00:00.000’, 110),

(24, ‘Mall Day, 5, 7, ‘2024-03-31 00:00:00.000’, 110),

(25, ‘Mall Day, 5, 8, ‘2024-03-31 00:00:00.000’, 110);

**FOR Q3**

INSERT INTO MALL\_MGMT\_COMPANY (CID, Address) VALUES

(1, '123 Corporate Blvd'),

(2, '456 Corporate Blvd');

INSERT INTO MALL (MID, Address, NumShops, CID) VALUES

(1, '789 Shopping Ave', 100, 1),

(2, '101 Shopping Ave', 150, 2),

(3, '202 Shopping Ave', 120, 1);

INSERT INTO RESTAURANT\_CHAIN (RID, Address) VALUES

(1, '321 Foodie St'),

(2, '654 Gourmet Ave');

INSERT INTO RESTAURANT\_OUTLET (OID, Unit\_no, MID, RID, Type, Name, Floor) VALUES

(1, 'Unit 101', 1, 1, 'Fast Food', 'Burger Bonanza', 1),

(2, 'Unit 201', 2, 2, 'Cafe', 'Cafe Goodness', 2);

INSERT INTO VOUCHER (VID, Date\_issued, Description, Status, Expiry\_date) VALUES

(1, '2024-03-25', '10% off dining', 'Active', '2024-04-25'),

(2, '2024-03-26', '5% off purchase', 'Active', '2024-04-26');

INSERT INTO DINE\_VOUCHER (VID, Cash\_discount, UID, Date\_time) VALUES

(1, 10.0, 1, '2024-03-25');

INSERT INTO PURCHASE\_VOUCHER (VID, Purchase\_discount, UID, Date\_time) VALUES

(2, 5.0, 1, '2024-03-26');

INSERT INTO DAY\_PACKAGE (DID, Description, VID, UID, Date, ProductID) VALUES

(1, 'Day Out Package', 1, 1, '2024-03-27', 1001);

INSERT INTO RECOMMENDATION (NID, Valid\_period, Date\_issued, MID, Dine\_voucher, Purchase\_voucher, DID, OID) VALUES

(1, 30, '2024-03-28', 1, 1, 2, 1, 1),

(2, 30, '2024-03-29', 1, 1, 2, 1, 2),

(3, 30, '2024-03-30', 2, 1, 2, 1, 1),

(4, 30, '2024-03-31', 2, 1, 2, 1, 2),

(5, 30, '2024-04-01', 3, 1, 2, 1, 1)

(6, 30, '2024-03-31', 1, 1, 2, 1, 1),;

Q4:

INSERT INTO MALL\_MGMT\_COMPANY (CID, Address)

VALUES

(1, 'Mall Management Company 1 Address'),

(2, 'Mall Management Company 2 Address'),

(3, 'Mall Management Company 3 Address'),

(4, 'Mall Management Company 4 Address'),

(5, 'Mall Management Company 5 Address');

INSERT INTO MALL (MID, Address, NumShops, CID)

VALUES

(1, 'Mall 1 Address', 5, 1),

(2, 'Mall 2 Address', 6, 1),

(3, 'Mall 3 Address', 7, 2),

(4, 'Mall 4 Address', 8, 2),

(5, 'Mall 5 Address', 9, 3),

(6, 'Mall 6 Address', 10, 3),

(7, 'Mall 7 Address', 11, 4),

(8, 'Mall 8 Address', 12, 4),

(9, 'Mall 9 Address', 13, 5),

(10, 'Mall 10 Address', 14, 5);

INSERT INTO SHOP (SID, Type, MID, Shop\_Manager\_ID, Shop\_Manager\_Name)

VALUES

(1, 'Clothing', 1, 1001, 'John Doe'),

(2, 'Electronics', 1, 1002, 'Jane Smith'),

(3, 'Grocery', 2, 1003, 'Michael Johnson'),

(4, 'Footwear', 2, 1004, 'Emily Wilson'),

(5, 'Books', 3, 1005, 'David Brown'),

(6, 'Sporting Goods', 3, 1006, 'Sarah Davis'),

(7, 'Jewelry', 4, 1007, 'James Taylor'),

(8, 'Cosmetics', 4, 1008, 'Emma Martinez'),

(9, 'Home Decor', 5, 1009, 'Olivia Anderson'),

(10, 'Toys', 5, 1010, 'William Thomas'),

(11, 'Pet Supplies', 6, 1011, 'Sophia White'),

(12, 'Stationery', 6, 1012, 'Alexander Martinez'),

(13, 'Furniture', 7, 1013, 'Ella Harris'),

(14, 'Kitchenware', 7, 1014, 'Noah Clark'),

(15, 'Music', 8, 1015, 'Ava Lewis'),

(16, 'Health & Wellness', 8, 1016, 'Liam Robinson'),

(17, 'Eyewear', 9, 1017, 'Mia Hall'),

(18, 'Hardware', 9, 1018, 'Lucas King'),

(19, 'Art Supplies', 10, 1019, 'Amelia Wright'),

(20, 'Gifts & Novelties', 10, 1020, 'Benjamin Scott');

**FOR Q6**

INSERT INTO MALL\_MGMT\_COMPANY (CID, Address) VALUES

(1, '123 Corporate Blvd'),

(2, '456 Corporate Blvd');

INSERT INTO MALL (MID, Address, NumShops, CID) VALUES

(1, '789 Shopping Ave', 100, 1),

(2, '101 Shopping Lane', 150, 2),

(3, '202 Retail Road', 120, 1);

INSERT INTO SHOP (SID, Type, MID, Shop\_Manager\_ID, Shop\_Manager\_Name) VALUES

(1, 'Electronics', 1, 101, 'Alice Smith'),

(2, 'Clothing', 2, 102, 'Bob Jones'),

(3, 'Home Goods', 3, 103, 'Carol Danvers');

INSERT INTO SHOPPING (SID, UID, Amount\_spent, Date\_time\_in, Date\_time\_out) VALUES

(1, 1, 200.00, '2024-03-28 10:00', '2024-03-28 11:00'),

(1, 2, 150.00, '2024-03-29 12:00', '2024-03-29 13:00'),

(2, 3, 300.00, '2024-03-30 14:00', '2024-03-30 15:00'),

(2, 1, 250.00, '2024-03-31 16:00', '2024-03-31 17:00'),

(3, 2, 350.00, '2024-04-01 18:00', '2024-04-01 19:00'),

(3, 3, 400.00, '2024-04-02 20:00', '2024-04-02 21:00');

(1, 5, 10.00, '2024-03-31 10:00:00', '2024-03-31 11:00:00'),

(1, 7, 12.00, '2024-03-31 10:00:00', '2024-03-31 11:00:00');

INSERT INTO RESTAURANT\_CHAIN (RID, Address) VALUES

(1, '321 Gourmet Blvd'),

(2, '654 Tasty St');

INSERT INTO RESTAURANT\_OUTLET (OID, Unit\_no, MID, RID, Type, Name, Floor) VALUES

(3, 'Unit 103', 1, 2, 'Italian', 'Pasta Paradise', 1),

(4, 'Unit 104', 2, 1, 'Coffee Shop', 'Caffeine Dreams', 2);

INSERT INTO DINING (UID, OID, Amount\_spent, Date\_time\_in, Date\_time\_out)

VALUES

(1, 1, 100, '2024-03-28 10:00:00.000', '2024-03-28 11:00:00.000'),

(1, 2, 100, '2024-03-31 16:00:00.000', '2024-03-31 17:00:00.000'),

(1, 3, 100, '2024-03-29 12:00:00.000', '2024-03-29 13:00:00.000'),

(1, 4, 100, '2024-04-01 18:00:00.000', '2024-04-01 19:00:00.000'),

(1, 5, 100, '2024-03-30 14:00:00.000', '2024-03-30 15:00:00.000'),

(1, 6, 100, '2024-04-02 20:00:00.000', '2024-04-02 21:00:00.000'),

(2, 1, 200, '2024-03-28 10:00:00.000', '2024-03-28 11:00:00.000'),

(2, 2, 200, '2024-03-31 16:00:00.000', '2024-03-31 17:00:00.000'),

(2, 3, 200, '2024-03-29 12:00:00.000', '2024-03-29 13:00:00.000'),

(2, 4, 200, '2024-04-01 18:00:00.000', '2024-04-01 19:00:00.000'),

(2, 5, 200, '2024-03-30 14:00:00.000', '2024-03-30 15:00:00.000'),

(3, 1, 100, '2024-03-28 10:00:00.000', '2024-03-28 11:00:00.000'),

(3, 1, 100, '2024-03-29 12:00:00.000', '2024-03-29 13:00:00.000'),

(3, 1, 100, '2024-03-30 14:00:00.000', '2024-03-30 15:00:00.000'),

(3, 2, 100, '2024-03-31 16:00:00.000', '2024-03-31 17:00:00.000'),

(3, 2, 100, '2024-04-01 18:00:00.000', '2024-04-01 19:00:00.000'),

(3, 2, 100, '2024-04-02 20:00:00.000', '2024-04-02 21:00:00.000'),

(7, 2, 15, '2024-02-15 19:00:00.000', '2024-03-31 20:00:00.000'),

(7, 2, 5, '2024-03-16 11:00:00.000', '2024-03-31 12:00:00.000'),

(7, 2, 5, '2024-03-17 11:00:00.000', '2024-03-31 12:00:00.000'),

(5, 1, 50, '2024-03-31 12:00:00.000', '2024-03-31 13:00:00.000'),

(6, 1, 75, '2024-03-31 12:00:00.000', '2024-03-31 13:00:00.000'),

(5, 2, 60, '2024-03-31 19:00:00.000', '2024-03-31 20:00:00.000'),

(7, 2, 45, '2024-03-31 19:00:00.000', '2024-03-31 20:00:00.000'),

(21, 5, 25, '2024-04-01 12:00:00.000', '2024-04-01 13:00:00.000'),

(22, 4, 30, '2024-04-01 12:00:00.000', '2024-04-01 13:00:00.000'),

(21, 5, 22.50, '2024-04-01 10:00:00.000', '2024-04-01 11:00:00.000'),

(23, 6, 27.75, '2024-04-01 12:00:00.000', '2024-04-01 13:00:00.000'),

(24, 3, 29.75, '2024-04-01 12:00:00.000', '2024-04-01 13:00:00.000');

BACKUP:  
Counting dining record together:

SELECT UID,

count(date\_time\_in) AS count\_together

FROM

(SELECT DISTINCT d1.\*

FROM dining d1

JOIN dining d2 ON d1.uid <> d2.uid

AND d1.oid = d2.oid

AND d1.date\_time\_in = d2.date\_time\_in

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq1 ON d1.uid = sq1.uid2

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq2 ON d2.uid = sq2.uid2

WHERE sq1.gid = sq2.gid ) AS ss1

GROUP BY ss1.uid;

​​Counting shopping record together:

SELECT ss2.uid, count(\*) as count\_together FROM

(SELECT DISTINCT s1.UID

FROM shopping s1

JOIN shopping s2 ON s1.uid <> s2.uid

AND s1.sid = s2.sid

AND s1.date\_time\_in = s2.date\_time\_in

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq1 ON s1.uid = sq1.uid2

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq2 ON s2.uid = sq2.uid2

WHERE sq1.gid = sq2.gid) AS ss2

GROUP BY ss2.uid;

Dining with day package:

SELECT \*

FROM dining dg

JOIN day\_package dp ON dg.uid = dp.uid

AND convert(date, dg.[date\_time\_in]) = convert(date, dp.[date]);

Count:

SELECT si1.uid ,

count(\*) AS all\_count

FROM

(SELECT dg.\*

FROM dining dg

JOIN day\_package dp ON dg.uid = dp.uid

AND convert(date, dg.[date\_time\_in]) = convert(date, dp.[date])) AS si1

GROUP BY si1.uid ;

Shopping with dp:

SELECT \* FROM

SHOPPING sp

join DAY\_PACKAGE dp on

sp.UID = dp.UID and CONVERT(date, sp.[date\_time\_in]) = CONVERT(date, dp.[date])

;

Count: SELECT si2.uid ,

count(\*) AS all\_count

FROM

(SELECT sp.\*

FROM shopping sp

JOIN day\_package dp ON sp.uid = dp.uid

AND convert(date, sp.[date\_time\_in]) = convert(date, dp.[date])) AS si2

GROUP BY si2.uid ;

Total count for dp:

SELECT UID,

sum(dp\_count) AS count\_dp

FROM (

(SELECT si1.uid,

count(\*) AS dp\_count

FROM

(SELECT dg.\*

FROM dining dg

JOIN day\_package dp ON dg.uid = dp.uid

AND convert(date, dg.[date\_time\_in]) = convert(date, dp.[date])) AS si1

GROUP BY si1.uid )

UNION ALL

(SELECT si2.uid,

count(\*) AS dp\_count

FROM

(SELECT sp.\*

FROM shopping sp

JOIN day\_package dp ON sp.uid = dp.uid

AND convert(date, sp.[date\_time\_in]) = convert(date, dp.[date])) AS si2

GROUP BY si2.uid ) ) AS ss1

GROUP BY UID ;

Total Count for Everything:

SELECT UID,

sum(all\_count) AS count\_total

FROM (

(SELECT UID,

count(\*) AS all\_count

FROM shopping

GROUP BY UID)

UNION

(SELECT UID,

count(\*) AS all\_count

FROM dining

GROUP BY UID)) AS ss1

GROUP BY UID;

Total count for together:

SELECT UID,

sum(count\_together) AS count\_together

FROM (

(-- 1st uinion begins

SELECT UID,

count(date\_time\_in) AS count\_together

FROM

(SELECT DISTINCT d1.\*

FROM dining d1

JOIN dining d2 ON d1.uid <> d2.uid

AND d1.oid = d2.oid

AND d1.date\_time\_in = d2.date\_time\_in

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq1 ON d1.uid = sq1.uid2

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq2 ON d2.uid = sq2.uid2

WHERE sq1.gid = sq2.gid ) AS ss1

GROUP BY ss1.uid )-- 1st uinion ends

UNION ALL

(-- 2nd uinion begins

SELECT ss2.uid,

count(\*) AS count\_together

FROM

(SELECT DISTINCT s1.uid

FROM shopping s1

JOIN shopping s2 ON s1.uid <> s2.uid

AND s1.sid = s2.sid

AND s1.date\_time\_in = s2.date\_time\_in

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq1 ON s1.uid = sq1.uid2

JOIN (

(SELECT uru1.uid2,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru1.type AS varchar(255)) IN ('family'))

UNION

(SELECT uru1.uid1,

uru1.gid

FROM user\_related\_user uru1

JOIN user\_related\_user uru2 ON uru1.gid = uru2.gid

WHERE cast(uru2.type AS varchar(255)) IN ('family'))) AS sq2 ON s2.uid = sq2.uid2

WHERE sq1.gid = sq2.gid) AS ss2

GROUP BY ss2.uid )-- 2nd uinion ends

) AS sss1

GROUP BY UID ;