**Database Testing and Queries**

**Done**

show all paid expenses for a user

show all unpaid expenses for a user

show all users in a group with unpaid expenses

show all users in a group with paid expenses

show all expenses in a group

show all paid expenses in a group

show all unpaid expenses in a group

**Needs to be written**

show all non-group expenses for a user

show all paid non-group expenses for a user

show all unpaid non-group expenses for a user

show all of a user's friends

show all denied/outstanding friend requests for a given user

show all members of a given group and show all of their expenses

**show all user information and settings**

SELECT \* FROM ba\_users natural JOIN ba\_settings NATURAL JOIN languages natural join zone

**show all users in a group**

SELECT user\_id, first\_name, last\_name from ba\_users NATURAL JOIN ba\_group\_members NATURAL JOIN ba\_groups WHERE group\_id = 1;

**show all groups a user belongs to**

SELECT group\_name FROM ba\_users NATURAL JOIN ba\_group\_members NATURAL JOIN ba\_groups WHERE user\_id = 1;

**show all paid expenses for a user**

SELECT user\_id, expense\_id, first\_name, last\_name, settled FROM ba\_users NATURAL JOIN ba\_user\_expenses WHERE user\_id = 1 and settled=1;

**show all unpaid expenses for a user**

SELECT user\_id, expense\_id, first\_name, last\_name, settled FROM ba\_users NATURAL JOIN ba\_user\_expenses WHERE user\_id = 1 and settled=0;

**show all users in a group with unpaid expenses**

SELECT user\_id, expense\_id, first\_name, last\_name, settled, group\_id FROM ba\_users NATURAL JOIN ba\_group\_members NATURAL JOIN ba\_groups NATURAL JOIN ba\_group\_expenses NATURAL JOIN ba\_user\_expenses WHERE settled = 0;

**show all users in a group with paid expenses**

SELECT user\_id, expense\_id, first\_name, last\_name, settled, group\_id FROM ba\_users NATURAL JOIN ba\_group\_members NATURAL JOIN ba\_groups NATURAL JOIN ba\_group\_expenses NATURAL JOIN ba\_user\_expenses WHERE settled = 1;

**show all expenses in a group**

SELECT group\_id, expense\_id, expense\_title, total\_amount, paid FROM ba\_expenses NATURAL JOIN ba\_group\_expenses NATURAL JOIN ba\_groups WHERE group\_id = 1

**show all paid expenses in a group**

SELECT group\_id, expense\_id, expense\_title, total\_amount, paid FROM ba\_expenses NATURAL JOIN ba\_group\_expenses NATURAL JOIN ba\_groups WHERE group\_id = 1 AND paid = 1;

**show all unpaid expenses in a group**

SELECT group\_id, expense\_id, expense\_title, total\_amount, paid FROM ba\_expenses NATURAL JOIN ba\_group\_expenses NATURAL JOIN ba\_groups WHERE group\_id = 1 AND paid = 0;

**<!--Complicated-->**

show unpaid non-group expenses with both the person who is owed and the person who owes

**Notes:**

1. If there is a situation where one person loans another person money, that person's 'settled' field in ba\_user\_expense is set to 1 and the time settled is set to the creation date of the expense. This needs to be handled in java.