

Group #26: Lily Wu, Kelly Hung, Eve Phelps, Huiyi Ruan
CIS 350 001
March 25th, 2018
Report - Iteration 2

Database update: All query functionality was integrated with the app through the file DBQueries.java. Brief descriptions of all functions can be found at the end of this document, or in the git under database/Function Info.pdf. A singleton framework was used so that the user only establishes one connection with the database.

User stories completed

Payment confirmation button. As a user, I should press a button to confirm that I've paid for a bill. Then, it should no longer appear in my bill list.

Send email reminder. As a user, I should be able to press a button that opens up an email app, where the email app has been filled in with the members of the group (who must also pay for this bill) in the addressee field, and the body of the email is filled with a reminder. After I press send, I should be redirected to the app.

Manage Group. As a user, I should be able to manage my existing group list by clicking on the Manage Group button. I should then be provided with options to manage these groups.

Delete Group. As a user, I should be able to delete a whole group. And, this action would delete this group from all users' group lists. This group would also be deleted from the database.

Exit Group. As a user, I should be able to exit a group, and this group would disappear from my group list. If I am the last one to exit this group, this group record would also be deleted from the database.

Add Bill. As a user in a group, I should be able to add a bill for the group. I should be able to select the members of the group who will be charged for that bill (either with an equal split or a specified split), input the bill's due date, and write a description for the bill.

Join Group. As a user, I can join a group after inputting the correct group ID code.

Roadblocks

One issue encountered while integrating the database with the application was that in some cases, the Java syntax required that variables be encased in single quotes, while other variables could not be encased in them. While I don't fully understand why this distinction exists, I believe all instances of it have been uncovered through testing. Additionally, I found that the general technique I'd been using for all queries, calling executeUpdate() on a Statement, did not work when the query contained multiple variables in the WHERE clause. I was ultimately able to

figure out that creating a PreparedStatement and assigning each variable to the statement individually was able to fix the issue.

On some phones the list of bills does not show up so I was unable to test that editing a bill works.

Known bugs

Adding bills doesn't cause it to appear in the DB.

Commit log

commit 1boe6451197dd2fcd11e666aadcc4914c22fe5e6 (HEAD -> confirm_button)

Author: kplhung <khung61@gmail.com>

Date: Fri Mar 23 11:21:48 2018 -0400

added confirm payment button that deletes bill from db

commit 6f55b2b5b55ff0b0fc89dcb24b00e7104be37c41

Merge: 90ae0c1 15a47e4

Author: Lily Wu <lilyidi@gmail.com>

Date: Fri Mar 23 11:02:41 2018 -0400

Merge pull request #20 from cis-upenn/add_bill
add bill to database

commit 15a47e4724721bbd1b6bdd8224588a0c8709df3d

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Fri Mar 23 11:00:23 2018 -0400

add bill to database

commit 90ae0c17aedb6a0b343ff93d96d2210941f4906c

Author: evephelps <evepphelps@gmail.com>

Date: Fri Mar 23 10:46:36 2018 -0400

Upload updated function info
forgot to include groupMembers()

commit 08b492bec6d4ff15of59a5cc2a9b614ae8dc8e02

Author: evephelps <evepphelps@gmail.com>

Date: Fri Mar 23 10:46:08 2018 -0400

Delete Function Info.pdf for replacement
forgot to include groupMembers(String group_id)

commit d9ffod57b70231f4d9d4acoa7052cfbd679b4cd5

Merge: 7072301 901b1b5

Author: Kelly Hung <35794727+kplhung@users.noreply.github.com>

Date: Fri Mar 23 02:06:40 2018 -0400

Merge pull request #19 from cis-upenn/email_notify
added get group members query to DBQueries library, added email notif

commit 901b1b543b6bfe130c93618d1edcb265fc5d3fe8 (email_notify)

Author: kplhung <khung61@gmail.com>

Date: Fri Mar 23 02:05:23 2018 -0400

added get group members query to DBQueries library, added email notification method

commit 70723012bdbd1dc9b5c4d9a2cc13fed7c9a207f8 (master)

Merge: 7f5670c a27fc39

Author: Lily Wu <lilyidi@gmail.com>

Date: Fri Mar 23 01:50:08 2018 -0400

Merge pull request #18 from cis-upenn/join_group_with_db
incorporate db with join group activity, fix errors

commit a27fc392de0f1efffeb4e842e3b5681b76fa96be

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Fri Mar 23 01:48:37 2018 -0400

incorporate db with join group activity, fix errors

commit 7f5670cc2b220627fe78c510cc81e8d561f79721

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:41:04 2018 -0400

add email suffix

commit 08f6567ec6e2bf74c5cb855cddbde01b6b210b1c

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:28:40 2018 -0400

update view arrangement

commit abe523e04b9c7c6c5b9a62a55637034bea3fd75d

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:22:49 2018 -0400

implemented deleteGroup and existGroup feature

commit 50boedo5e3630a9ab20112de160a5b4baaoda46c

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:11:01 2018 -0400

delete test lines

commit 2097c661abc190bde1f6fd276921fb1842290e14

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:06:36 2018 -0400

remove groupID from view

commit cob954699a04cf63dd178abbf2a02850e51107d8

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:05:07 2018 -0400

add getParticipation()

commit 3c8be29df2913c42e93bd4e35cbd205fd5852523

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Fri Mar 23 00:04:12 2018 -0400

remove GroupID from view

commit 76d8ecbfa97eefe599b833d3835e00e014e253df

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Thu Mar 22 23:55:24 2018 -0400

delete unused function

considering the getParticipation() DB query, it is redundant to have another one here. Hence delete it.

commit 90c6490dc4fdd855c1fbef3d13aa764022ee44dd

Author: evepphelps <evepphelps@gmail.com>

Date: Thu Mar 22 23:41:01 2018 -0400

Add file detailing all query functions

Outlines uses & inputs to all functions in DBQueries.java

commit 90922c16254f51e6a654487cc2de4a819d292dd4

Merge: da645cb 452f1df

Author: Kelly Hung <35794727+kplhung@users.noreply.github.com>

Date: Thu Mar 22 23:31:46 2018 -0400

Merge pull request #17 from cis-upenn/updateQueries

Fix leave group db connection, add delete group functionality, add delete account functionality

commit 452f1df0016659d6809ec576d009800ee179859c

Merge: 8b8f17a da645cb

Author: Kelly Hung <35794727+kplhung@users.noreply.github.com>

Date: Thu Mar 22 23:11:01 2018 -0400

Merge branch 'master' into updateQueries

commit da645cb058a5c62e09198cee3c7089046eacebd2

Merge: 3951fco 4ea9c1a

Author: Kelly Hung <35794727+kplhung@users.noreply.github.com>

Date: Thu Mar 22 20:36:07 2018 -0400

Merge pull request #15 from cis-upenn/add_bill

commit 8b8f17aa5e99f75752a462845062e82dfe471050

Author: Eve Phelps <evepphelps@gmail.com>

Date: Thu Mar 22 07:04:33 2018 -0400

Restore project I updated to fix Huiyi's issue with leaving a group

commit 3951fc0935e24b43ce8d2e8f86575e6916c07db9

Merge: 5cd802f 2e3f7f7

Author: evepphelps <evepphelps@gmail.com>

Date: Thu Mar 22 05:58:48 2018 -0400

Merge pull request #16 from cis-upenn/revert-14-ConnectDB

Revert "Retrieve data from DB"

commit 2e3f7f785b79138bd9ff9562ae9c6b60b392679c

Author: evepphelps <evepphelps@gmail.com>

Date: Thu Mar 22 05:52:55 2018 -0400

Revert "Retrieve data from DB"

commit 5cd802f14d1a0be51b262fc8027c92bea6c64477

Merge: 21d4e25 90f01dc

Author: evepphelps <evepphelps@gmail.com>

Date: Thu Mar 22 05:46:59 2018 -0400

Merge pull request #14 from cis-upenn/ConnectDB

Resolved conflicts with fixing leave group functionality, adding delete group functionality, & adding delete account functionality

commit 90f01dc4d9a13dd55e9b04376c88c85d6da49776

Merge: bd4b8c2 21d4e25

Author: evepphelps <evepphelps@gmail.com>

Date: Thu Mar 22 05:45:41 2018 -0400

Merge branch 'master' into ConnectDB

commit 4ea9c1ab7d49d4b6f98a9d3bfc30280434dff25b

Merge: eb79331 foe440b

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Wed Mar 21 18:17:55 2018 -0400

fix merge conflicts

commit eb79331ad38fd8ae44c24180597a41c423c108c5

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Wed Mar 21 18:11:40 2018 -0400

fix formatting, incorporated db

commit 942a83255737a12b85185320f81bf482e59dbc9d

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Sun Mar 11 21:20:42 2018 -0400

add bill activity

commit bd4b8c2e8b85b68546085224f1d127f5882230f1

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Tue Mar 20 14:28:35 2018 -0400

delete group_id view

commit 7a826720cfdd977009d8d67d20fb3eb72boaoe99

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Tue Mar 20 14:25:31 2018 -0400

improve view and connect DB

remove the group_id display from GroupListActivity view, and implement the feature to retrieve user group information from DB. (but still, have problems with delete group and exist group feature.)

commit e53bfd61ed7cc0b6ee104a27d81796cd82bc938d

Author: Eve Phelps <evepphelps@gmail.com>

Date: Tue Mar 20 02:05:26 2018 -0400

Forgot to delete unnecessary print statements in User.java

commit 1c7624122935463a6b4def3acd7a5648a131de18

Author: Eve Phelps <evepphelps@gmail.com>

Date: Tue Mar 20 02:02:53 2018 -0400

Fixed implementation for getting a user's group information, NOTE GroupListActivity.java line 54 needed to be commented out in order to run the program

commit a43e672a4c4c4a5055676dceeb237aa5991325f6

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Mon Mar 19 18:03:26 2018 -0400

Update User.java

commit abacaeff3129198b560756db75c73750e65c205a

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Mon Mar 19 18:03:01 2018 -0400

try to get user group information from DB

commit 7c8fafdb95cbc359652ff7a3bac84d9731a5a467

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Mon Mar 19 17:39:00 2018 -0400

add loadBillList()

commit 21d4e25265519ba361a132fe74a947ed3bebab6c

Author: kplhung <khung61@gmail.com>

Date: Mon Mar 19 12:52:44 2018 -0400

fixed show bill link, added in functionality for deleting bills from the DB

commit oca664b4b6b3790c108d90417d04261e325d3e43

Merge: 77bea43 481c88b

Author: kplhung <khung61@gmail.com>

Date: Mon Mar 19 12:03:33 2018 -0400

Merge branch 'master' of

<https://github.com/cis-upenn/350S18-26-RoommateSpendingTracker>

commit 77bea43f32281a61e927d6a43003aff945cc3559

Author: kplhung <khung61@gmail.com>

Date: Mon Mar 19 12:03:10 2018 -0400

mod

commit 77e0bb3e1422238fcb2efe048423d52532b7ea46

Author: Eve Phelps <evepphelps@gmail.com>

Date: Sat Mar 17 23:07:33 2018 -0400

Update DBQueries to fix createGroup functionality

commit 481c88bdeb4297c6657efcd5e029d2917a77eed2

Author: Eve Phelps <evepphelps@gmail.com>

Date: Sat Mar 17 22:54:26 2018 -0400

update DBQueries.java to fix createGroup functionality

commit 5e2efe80627004055d726b01100b8d661e7e77be

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Sat Mar 17 20:16:09 2018 -0400

updated group adapters formats

commit c35455061746ae536aa0f09cfab61e2d4ba88f28

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Sat Mar 17 20:13:26 2018 -0400

Updated files connecting to DB

commit foe440b57b9a1063ac6ed2b529092db174e2f017

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Sun Mar 11 21:20:42 2018 -0400

add bill activity

commit aa9179c096ce503019b711c275a9f4ba0a5e91ac
Merge: 9d43foa d2ea09c
Author: evepphelps <evepphelps@gmail.com>
Date: Fri Mar 9 21:37:53 2018 -0500
Merge pull request #11 from cis-upenn/databaseFunctions
Update DBQueries.java with all other query functionality

commit d2ea09c5ccf900f3a600c69d7f7365c686f92132
Author: Eve Phelps <evepphelps@gmail.com>
Date: Fri Mar 9 21:34:18 2018 -0500
Update DBQueries.java with all other query functionality

commit 9d43foa694e939d5e1dfe24da2f7a8ea99359114
Merge: 979a334 eae488c
Author: evepphelps <evepphelps@gmail.com>
Date: Fri Mar 9 19:01:48 2018 -0500
Merge pull request #10 from cis-upenn/databaseFunctions
Update login & sign up database functionality

commit eae488c72f7521c2c1b1b2b9dfe8f2eadf1f5a34
Author: Eve Phelps <evepphelps@gmail.com>
Date: Fri Mar 9 18:54:48 2018 -0500
Update with integrated database for login/signup

commit eb4597f46d893cccc53f937c7c980512d47ef17a
Author: Eve Phelps <evepphelps@gmail.com>
Date: Fri Mar 9 18:53:31 2018 -0500
Update with integrated database for login/signup

commit 979a33466ddb03e4dc97f85198ce30936e9c8610
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 01:31:42 2018 -0500
change background colour

commit 9b0274b6765of4ceb31f4915e0e533ee5c784b31
Merge: 4274a97 863f5ca
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 01:25:24 2018 -0500
Merge pull request #9 from cis-upenn/dynamicView
add delete and exit group features

commit 863f5ca1e42b7f10bec81c2694f0158806efb628

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 01:22:43 2018 -0500
manage_group.xml

commit 4274a97d6ba9054cc69507d787c85bb27bb2800d
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 01:17:38 2018 -0500
implement delete and exist feature

commit 5d1f611ca18b4bob2c8fced5840b59deecf4fc6a
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 00:27:30 2018 -0500
add groupManage activity

commit c85237e5846006ec5e74524b514fd03893988442
Merge: 37937f1 ee560c9
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 00:24:14 2018 -0500
Merge pull request #8 from cis-upenn/dynamicView
update view showing method

commit ee560c9c33621155a3294df57efc343470e4fa9f
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 00:23:16 2018 -0500
Update GroupListAcitivity.java
add back_to_menu and manage_group methods

commit 4110dc80a399721619916c693653410ac35a45c3
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 00:21:55 2018 -0500
Update existing_group.xml
add group_manage and back option

commit 37937f1e9fc1d3b5f7b1014d1cdb0fbaoe5cd094
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Fri Mar 9 00:19:48 2018 -0500
Update AndroidManifest.xml
add groupManageActivity

commit fe63dcd634a84a2bacbb40953ba1ab03de61276
Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>
Date: Thu Mar 8 23:54:15 2018 -0500
Update AndroidManifest.xml

commit 1db603d0152a405cc0798cbe5e8e789456ae9598

Author: kallyrhy <34464675+kallyrhy@users.noreply.github.com>

Date: Thu Mar 8 23:48:10 2018 -0500

update view showing method

ListView would be shown based on the database instead of checking group numbers and then use findViewById to show information.

commit 92e55a7d8da03d25aba2oaddob8af4325ee1f1b5

Author: kplhung <khung61@gmail.com>

Date: Wed Mar 7 14:11:34 2018 -0500

created new class for email notifications

commit 0a1474038f289c70e7e80d76b7df13892e58ed11

Author: kplhung <khung61@gmail.com>

Date: Tue Mar 6 20:32:56 2018 -0500

added confirm payment buttons and remove from local bill list feature

commit 60a522f8252ccace925005cobe2080983b8fae55

Author: kplhung <khung61@gmail.com>

Date: Tue Mar 6 17:36:36 2018 -0500

Revert "rename GroupListActivity, fixed CreateGroup crash bug."

This reverts commit 191bba627d7a6928d8102eb77d3d107d9aco6bdo.

commit 75cda25f8d4be62fc5bad15ffb43aede0a812515

Author: kplhung <khung61@gmail.com>

Date: Tue Mar 6 15:16:16 2018 -0500

deleted debug code

commit 98d68d3f657f49f57b8a76001084d5c56c312d15

Merge: 5b9c1c8 191bba6

Author: kplhung <khung61@gmail.com>

Date: Sat Mar 3 13:23:21 2018 -0500

Merge branch 'master' of

<https://github.com/cis-upenn/350S18-26-RoommateSpendingTracker>

commit 191bba627d7a6928d8102eb77d3d107d9aco6bdo

Author: Yi Di Wu <lilyidi@gmail.com>

Date: Sat Mar 3 13:15:55 2018 -0500

rename GroupListActivity, fixed CreateGroup crash bug.

Database Integration:

General information

Query the database by performing:

```
DBQueries db = DBQueries.getInstance()

db.*function*
```

ResultSet (rs): A set of rows containing the output of the SQL query. There is a pointer that originally points to just before the first row in the set, so you must call `rs.next()` in order to access the first row of the data.

Useful operations with **ResultSet rs**:

`if/while (rs.next())` — returns true if that next row exists, false otherwise. By accessing the information this way, you already handle calling `rs.next()` to view the first row of data

`rs.getInt(int i)` — returns the integer stored at that row in column `i` (columns begin at 1). There are similar functions for getting other value types

`rs.getString(String s)` — returns the string stored at that row in the column labeled `s`. There are similar functions for getting other value types

MISC FUNCTIONS

[helper] **void nullEmail(String email)** throws `IllegalArgumentException` if email is null

[helper] **void nullPassword(String p)** throws `IllegalArgumentException` if p is null

[helper] **void nullGroup(String group_id)** throws `IllegalArgumentException` if group_id is null

[helper] **void validDueDate(String date)** throws an `IllegalArgumentException` if date is null, isn't 10 characters, or if characters 4 and 6 aren't '-'

[helper] **void nullGroupName(String name)** throws an `IllegalArgumentException` if name is null or >20 characters

[helper] **String generateId()** creates a random 20 character string using the English alphabet and 0-9

USER FUNCTIONS

int login(String email, String password) handles login functionality. Returns 0 if email doesn't exist in the database, 1 if password was incorrect, 2 if successful

[helper] **boolean userExists(String email)** returns whether the email exists in the database

boolean signUp(String email, String password) handles signing a new user up to the app, returns whether it was successful

ResultSet userGroups(String email) returns all the groups a user is in, null if none

ResultSet userBills(String email) returns all bill info stored for each bill assigned to the user, null if none

ResultSet userBillsInGroup(String email, String group_id) returns all bill info stored for each bill assigned to the user in the given group, null if none

boolean deleteAccount(String email) handles safe deletion of a user's account, and returns whether it was successful

BILL FUNCTIONS

[helper] **boolean billExists(String bill_id)** returns whether bill_id is being used in the database

boolean addBill(String user, String group, String name, double amt, String date, String desc) handles functionality for adding a bill for a given user_id and group_id, returns whether the operation was successful

boolean deleteBill(String user_id, String group_id, String bill_id) handles deleting a bill, returns whether the operation was successful

boolean changeDueDate(String bill_id, String due_date) handles changing the due date for the specified bill, returns whether it was successful

boolean changeAmount(String bill_id, double amt) handles changing the bill's amount value for the specified bill, returns whether it was successful

GROUP FUNCTIONS

[helper] **boolean groupExists(String group_id)** returns whether the group_id is being used in the database

ArrayList<String> groupMembers(String group_id) returns an array list of all the email addresses of the users of a given group. The list is empty if the group doesn't exist.

String groupName(String group_id) returns the name associated with the given group_id, an empty string if the group_id doesn't exist in the database

[helper] **ResultSet groupBills(String group_id)** returns all bill info stored for each bill in a group, null if none

boolean createGroup(String user_id, String group_name) handles creating a group for the user with the given name, returns whether it was successful

int addUserToGroup(String user_id, String group_id) returns 0 if the addition failed, 1 if the user doesn't already exist in the database, 2 if addition was successful

boolean leaveGroup(String user_id, String group_id) handles a safe removal of a user from a group, returns whether it was successful

boolean deleteGroup(String group_id) handles safe deletion of a group, returns whether it was successful

int groupParticipation(String group_id) returns the number of users in a group, -1 if the group doesn't exist