Incremental and Regression Testing

Product	Tindents
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Components
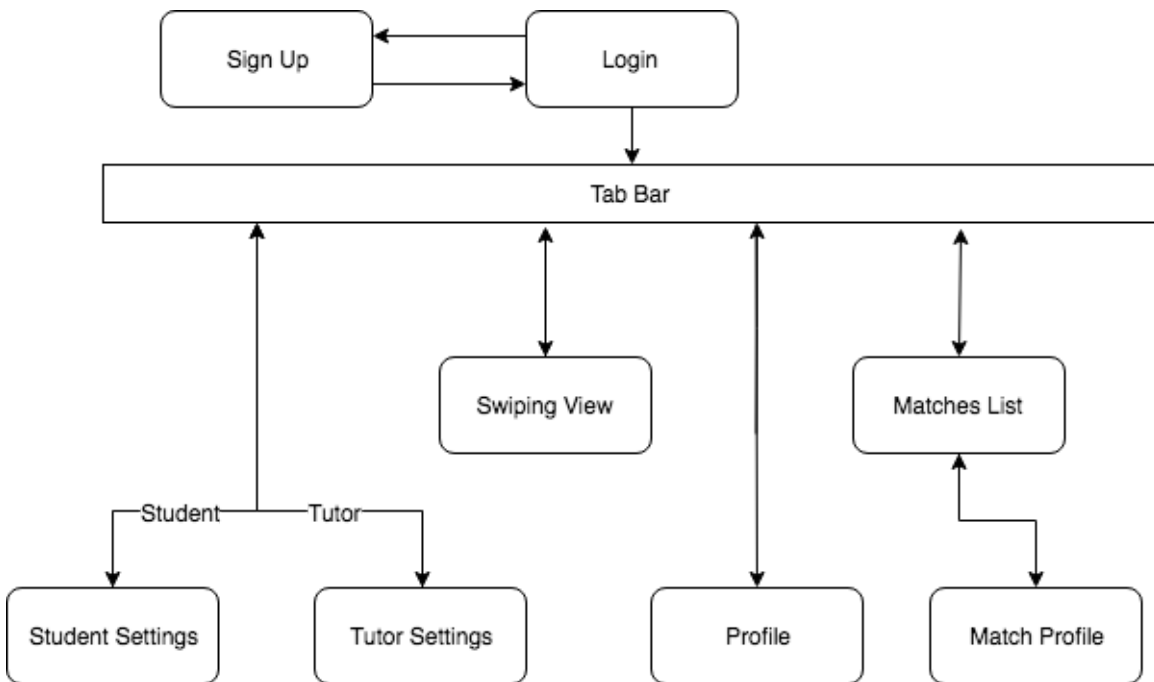
Classification of Components

Sign Up

- **Input:** Enter email, username, full name, password, retype password, and press Create Account
- **Output**: Either success and navigates to login page or failure which will display the appropriate error message
- **Calls**: LoginViewController
- **Called by**: LoginViewController

Login

- **Input**: Enter email, password and press the login button
- **Output**: Either success, and navigates to the main feed page or failure which will provide an error alert to try again.
- **Calls**: SignUpViewController and Tab Bar
- **Called by**: Profile page (to logout), signUpViewController

Tab Bar

- The Tab Bar is the navigation bar on the bottom of every page after logging in.
- Using a tab bar, a user can navigate to their settings, feed, profile and matches pages.

Student Settings:

- **Input:** The student clicks the toggle buttons for the various filters on their setting page.
- **Output**: After the preferred filters have been chosen, the students can see the tutors, who their preferences match to, on their feed.
- **Calls**: Tab Bar
- **Called By**: Tab Bar

Tutor Settings:

- **Input:** The tutor clicks toggle buttons for their charge, distance and subjects on their settings page to filter their feed.
- **Output**: After the preferred settings have been chosen, the tutors can see the students, who their preferences match to, on their feed.
- **Calls**: Tab Bar
- **Called By**: Tab Bar

Swiping View / Feed:

- **Input**: User swipes left or right
- **Output**: On left swipe, nothing happens. On right swipe, a boolean value is updated in database
- **Calls**: Tab Bar
- **Called by**: LoginViewController, Tab Bar

User Profile:
- **Input**: Choose the profile option on the tab bar
- **Output:** Navigates to the profile page where the users information is displayed and the user can log out.
- **Calls:** loginViewController (when the user logs out), Tab Bar
- **Called By:** Tab Bar

Matches
- **Input**: User match information (obtained from database)
- **Output**: List of matches with basic information and option to go to their profile page
- **Calls**: profileViewController, Tab Bar
- **Called by**: Tab Bar.

Match Profile:
- **Input**: Click on one of the matches in the matches page.
- **Output**: Navigates to the match's profile to display their information.
- **Calls:** Tab Bar
- **Called By:** matchesTableViewController

Type of Incremental Testing:
We are following the top-down testing because most of the sub modules/classes rely on the information from previous modules. To test the functionality, we made sure that main modules were functioning as expected and then tested the sub modules. Since most of the sub modules rely on the information provided in the main modules, top-down testing was the better option because it helped us ensure that the main modules were working properly.

Incremental and Regression Testing

Incremental Testing

Defect No.	Module	Description	Severity (1-5) 1=High 5=Low	How To Correct
1	Login	User enters invalid email/password presses submit and receives no feedback	3	Creating an alert view controller detailing the message received from the server

2	Matches	When the user biography is more than a certain amount of characters the description cuts off in the match list	3	Dynamically resize each table view to fit the text
3	Student Settings	When a student is in the Settings tab and selects the appropriate filter criteria, the student has to click on the Reset button in the Feed tab to get the filtered results	3	Put the URL request in the viewDidLoad() function, so that the filtered results are automatically acquired when the user navigates to the Feed tab
4	Tutor Settings	Similar to students, when a tutor selects the appropriate filter criteria in the Settings tab the filtered results are not automatically displayed in the Feed tab	3	By putting the URL request with the appropriate parameters in the viewDidLoad() function, a request will be sent to the server every time the user navigates to the Feed tab to fetch results according to the set filter criteria
5	Matches List	When a match occurs the tutor information sent to the Matches List view controller displays tutors with varying image sizes. This is because the tutors may have uploaded images of different sizes	3	This can be fixed by setting the width and height in the Matches List view controller to a fixed number in the viewDidLoad() function. This way, the picture dimensions will not vary
6	Matches	Similar to the settings page, after a user matches with another user, they have to click reset on the matches page to display their match	4	This can be fixed by putting a get request in the viewDidLoad() function to get the latest list of matches every time the user navigates to the Matches tab

Regression Testing

Defect No.	Module	Description	Severity (1-5) 1=High 5=Low	How To Correct
1	Matches	When viewing the matches list, sometimes show people you haven't matched with	2	Make sure database sends correct data to the matches request
2	Sign Up	The app crashes when some of the fields in the signUpViewController are empty	1	Have additional checks to see if the user enters all the fields before sending a request to the server to create an account in the database
3	Swiping View	After swiping the image of tutor/student, the next tutor/student used to be displayed at the angle the previous person was swiped	4	By setting the card to its identity and its center equal to that of parent view will ensure it will be in the center of the screen and not tilted
4	Swiping View	After defect 3 was fixed, we tried adding user information on the image but it resulted in only the text information being displayed without any image	3	The UI was updated such that the text labels were removed from the image and treated as separate entities. This helped facilitate easier coding
5	Login	When a user enters their username while logging in, the server would send an error response and the app would hang.	3	Previously, only the email was being checked if it matches with the password. The flask backend was updated such that the email or username is matching the password of the account.
6	Swiping View / Feed	After fixing the issue of running into index of bounds error for the	4	To fix this, an alert message will be displayed asking if the user wants to reset the filter

		tutor array while swiping, the user reaches to the last tutor and cannot do anything		criteria. If the user says Yes, then a request will be sent to the server to fetch all the available tutors (still in progress)

Updated Product Backlog

Backlog Id	Functional Requirement	Hours	Status
1	As a student, I would like to be able to create a student account	10	Completed, Sprint 1
2	As a student, I would like to filter tutors by rate charged	10	Planned for Sprint 2
3	As a user, I would like to filter tutors by distance	10	Planned for Sprint 2
4	As a student, I would like to have a feed of tutors that I can swipe through	15	Completed, Sprint 1
5	As a student, I would like to swipe right on tutors that I like	5	Completed, Sprint 1
6	As a student, I would like to swipe left on tutors that I don't like	3	Completed, Sprint 1
7	As a student, I would like to see contact information for tutors that I matched with	5	Incomplete, Pushed to Sprint 2
8	As a student, I would like to see past tutors that I have matched with	10	Planned for Sprint 2
9	As a student, I would like to be notified of a match with a tutor	10	Planned for Sprint 2
10	As a student, I would like to see the schedule for the tutor I matched with	15	Planned for Sprint 2
11	As a tutor, I would like to be able to create a tutor account	10	Completed, Sprint 1
12	As a student, I would like to be able to login to a student account	5	Completed, Sprint 1

13	As a tutor, I would like to be able to login to a tutor account	5	Completed, Sprint 1
14	As a tutor, I would like to set my hourly charges	5	Completed, Sprint 1
15	As a student, I would like to see the hourly charges of the tutors	5	Completed, Sprint 1
16	As a tutor, I would like to logout of my account	5	Completed, Sprint 1
17	As a student, I would like to logout of my account	5	Completed, Sprint 1
18	As a tutor, I would like to filter students by subjects to study	10	Pushed for Sprint 2
19	As a tutor, I would like to have a feed of students that I can swipe through	10	Completed, Sprint 1
20	As a tutor, I would like to swipe left on students that I don't like	5	Completed, Sprint 1
21	As a tutor, I would like to swipe right on students that I like	3	Completed, Sprint 1
22	As a tutor, I would like to be notified of a match with a student	15	Planned for Sprint 2
23	As a tutor, I would like to see the schedule for the student I matched with	15	Planned for Sprint 2
24	As a student, I would like to see contact information for tutors that I matched with	3	Incomplete, Pushed to Sprint 2
25	As a user, I would like to be able to email my match	7	Planned for Sprint 2
26	As a student, I would like to be able to rate tutors	10	Planned for Sprint 2
27	As a tutor, I would like to be able to rate students	5	Planned for Sprint 2
	Total	218	