

Archer

John Hoang, Edgar Yu, Daniel Tran, Gurvin Kohli

Part I. Abstract:

The main purpose of doing this project is to create a more social and active campus life that brings together people with different interests. The web application will serve as a social club does in the lives of non-students, but the application will be more inclusive and flexible for users' busy schedules. Most freshmen college students start over when it comes to their social life. After moving into college freshmen have almost no friends. The web application we will develop will help students make friends. The aim of our team is to make a positive difference in the lives of common people. So, by helping college students make friends, we are serving the community. Hence that is the reason we want to work on making the web application to make friends.

Currently, there are no apps designed exclusively for San Jose State that helps make friends. There are applications that help make friends based on location, like milk app but that is within the city and not within our campus. Students currently make friends by going to class and talking to people, but our application will not only match students based on their class schedule but also match students based on hobbies and other general information. Our application will take finding friends to another level.

Our solution to the problem of freshmen not having a decent social life is randomly pairing students that share certain interests in hopes it sparks a new friendship. As a web application, we will first have students fill out a very detailed questionnaire about themselves that includes their interests, academic career, intentions, etc. Each student will then be assigned into specific groups based on their survey answers, and when paired with other students in those

groups. Students can also add, delete, and report friends they make. There will also be a chat option through which users will be able to talk to each other before meeting in person. We will be using MySQL as our database server with Python which allows us to use Flask plugin which will allow us to create and use HTML and CSS to boot our website. Another problem that our application solves is the problem of high rate of depression in first-year college students. This is because our web application can help make friends which has the potential of reducing depression among first-year college students. This is because making friends in one's own classes can help alleviate any depressive thoughts that first-year college students might have. Therefore, our audience for this application will be first-year college students. However, this app can be used by students in any year because of the generalized nature of this application. There are certain applications that aim to pair random individuals together based on interests, such as Bumble. Instead of being randomly paired, users can choose from a pool of people based on their personal appearance which is not the best when it comes to meet amazing people. With our application, we will create new relationships of people with similar interests and with an element of surprise as one will never know who they might meet.

Part II. Team Introductions

Our team consists of four members: John Hoang, Daniel Tran, Gurvin Kohli, and Edgar Yu. Daniel is familiar with Python and MySQL, making him ideal for implementing the database in the group. Alongside Daniel, John will help with data manipulation regarding the database as well as implementing algorithms for our main program's use. Edgar is comfortable with front-end development in Java and is eager to learn it in Python for the project. Gurvin is familiar with HTML, CSS, and Python, but he will only be working on the front-end side of the project.

Together our team has all the skills that are necessary to make a complete web application that will help in making friends

Part III. Cost Estimation

The main part of this project will be the time that each member of the group must devote to write all the code for the project. But the first thing that will cost us is the pictures that will be used for icons and as header images for the cover page. The estimate is that we will purchase five images of two dollars each, adding up to ten dollars. We will also be using an online website testing service called “smart bear” which costs twenty dollars. Also, we will be buying a website domain to publish the website for fifteen dollars. So, the total cost of the project will be forty-five dollars and all the group members will be dividing the cost.

Daniel Tran

John Hoang

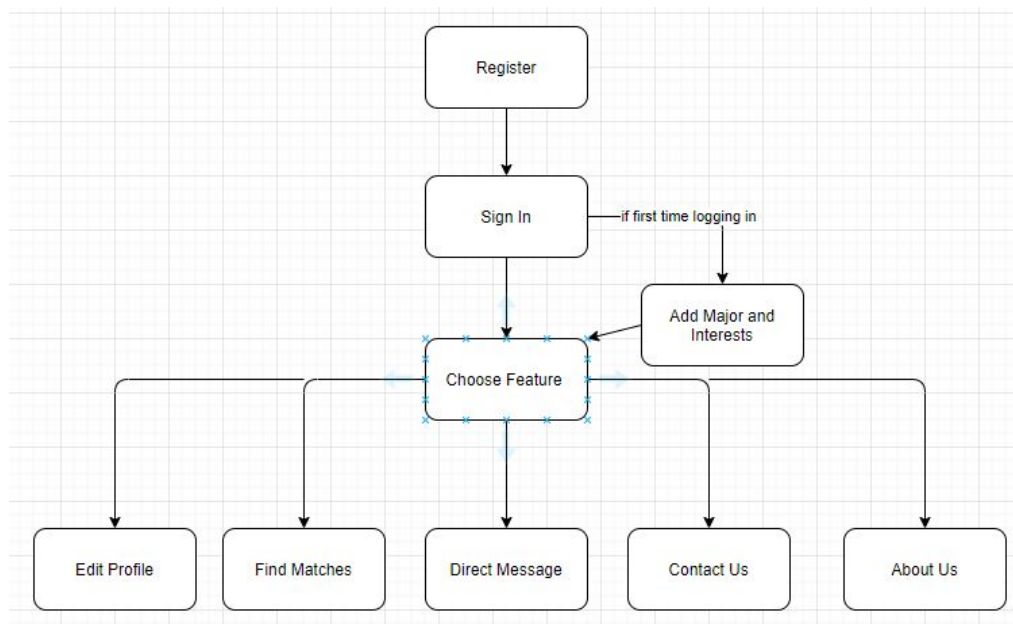
Gurvin Kohli

Edgar Yu

High-Level Requirements

User Story #1: Add a Major and Interests

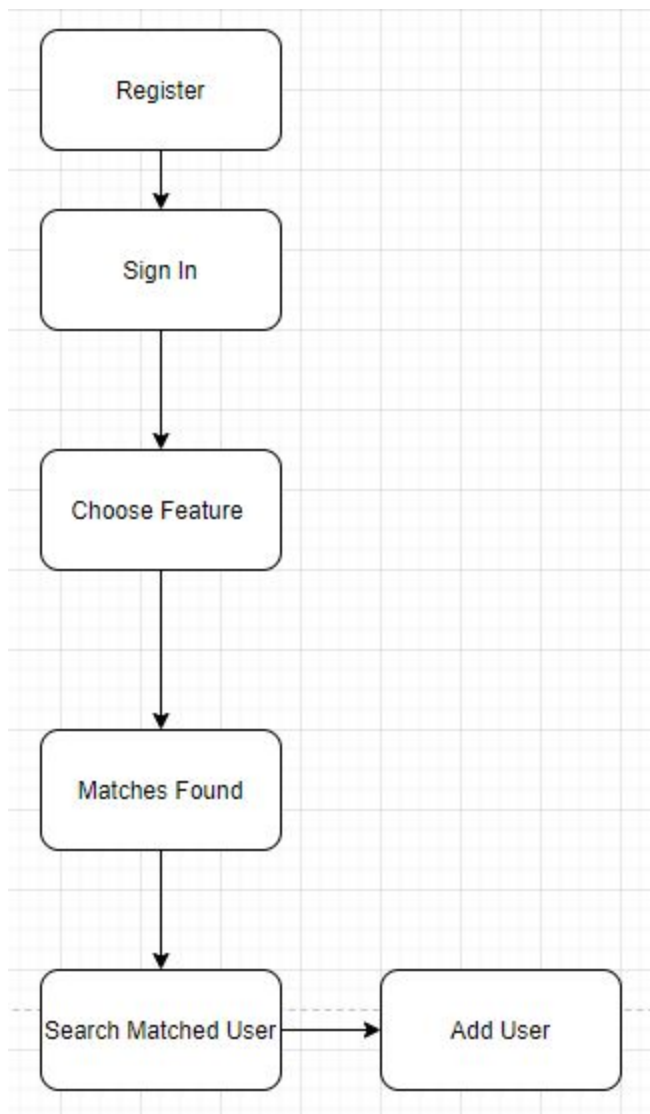
- 1) As a student wanting colleagues, I want to add my major and interests to the website so that I can find students with the same major and interests
 - a) When registering for an account, the user is required to input various information: enrolled major(s), interests, and description.
 - b) After the user enters the required information, they are taken to a dashboard where it can navigate to several features: Direct Message, Matches Found, Contact Us, About Us, Edit Profile



User Story #2: Find Students with Other Interests

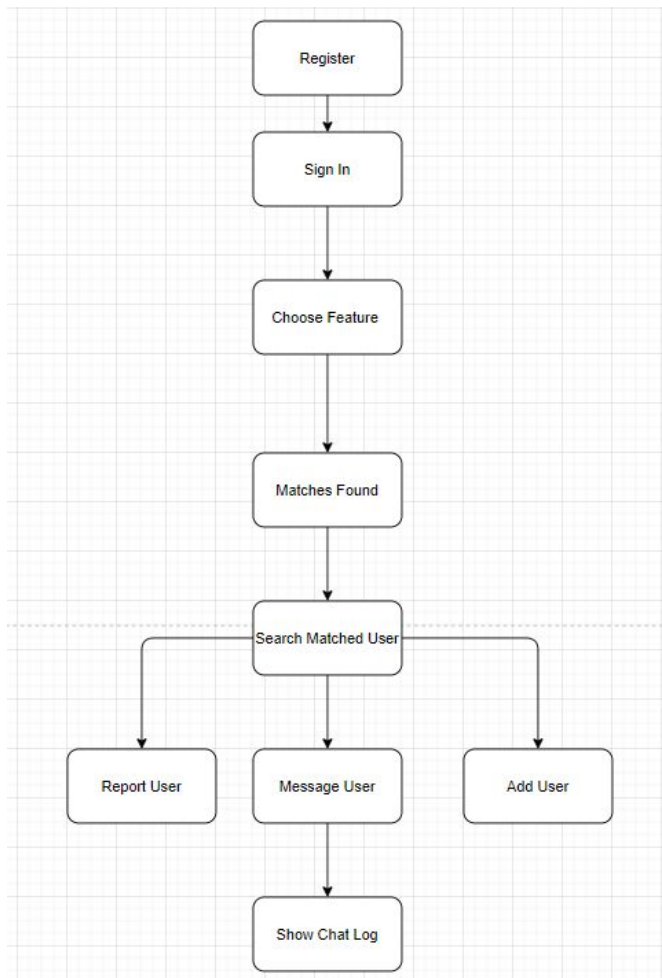
2) As a student, I want to check on the website if there are any other people with similar interests so I can learn more about them and contact them.

- a) After logging in and taken to the dashboard, the user clicks on “Matches Found”.
- b) This opens up a list of students with similar interests or majors to the user.
- c) I can click on the user for more info about them and add them as a friend.



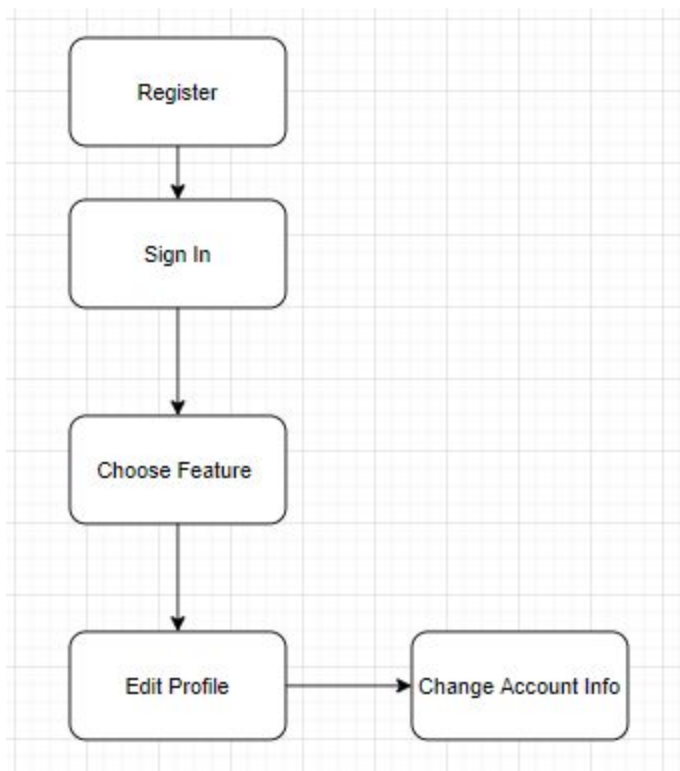
User Story #3: Chat Online

- 3) As a student, I want to chat online with people I match with so that I can get to know them better and makes seeing them in person simple and relaxed.
- a) In the dashboard, the user clicks on the “Matches Found” option where it will output a list of students.
 - b) Click on one of the students on the list and it will pop-up a window.
 - c) The window shows various options: Message, Add User (as a friend), and Report User. Click on the ‘Message’ option.
 - d) The windows show a chat log with you and the other user and here you can send direct messages to him.



User Story #4: Edit Profile

- 4) If the user ever decides to change their mind, the user can change their enrolled major and contact info from the dashboard.
 - a) After logging in, the user is taken to the website dashboard.
 - b) There will be an option to edit your profile on the dashboard in order to change their major and personal information.
 - c) After entering the edit page, the user is shown the list of majors enrolled and their current contact information such as name, phone number, and student year. This can be changed.
 - d) Once edited, the user is taken back to the dashboard that changes accordingly and your matches are shown may differ from the previous setting.



Project: Archer

Product Backlog

ID	Functional Req.	Details	Estimate (week)	E/D/O
1	Add User's Academic Major	<ul style="list-style-type: none"> • Upon registration, declared in drop down option 	.5 week DONE	E
2	Add User's Personal Interest	<ul style="list-style-type: none"> • On user's unique profile page, asked to complete a survey • Taken to new page • Fill a form of interests separated in categories <ul style="list-style-type: none"> ○ Outdoors activity <ul style="list-style-type: none"> ■ Concerts ■ Exercise ■ Picnics ■ etc ○ Indoors <ul style="list-style-type: none"> ■ Video Games ■ Studying ■ Cooking 	1 week DONE	E

		<ul style="list-style-type: none"> ■ Music ■ Etc ● Each item has a unique ID to be paired with student in database 		
3	Edit Personal Interests	<ul style="list-style-type: none"> ● Edit button available on profile page ● Takes to survey screen <ul style="list-style-type: none"> ○ Redo survey for any changes 	1 week	D
4	Group similar students together	<ul style="list-style-type: none"> ● Survey completed ● Places student into a pool of other students with similar interests <ul style="list-style-type: none"> ○ New database table created ○ Students with $\geq 70\%$ matching interests ID put into the database 	3 weeks DONE	E
5	Search for students of similar interests	<ul style="list-style-type: none"> ● Within the pool of students post grouping, are able to search for students name <ul style="list-style-type: none"> ○ Search bar prompts for a name ○ Search is done through SQLAlchemy Query <ul style="list-style-type: none"> ■ User.query(...) 	1.5 weeks DONE	E

		<ul style="list-style-type: none"> ○ Display name of the student found 		
6	Search for ALL students of specific interest	<ul style="list-style-type: none"> ● Search outside grouping database <ul style="list-style-type: none"> ○ A separate option for search by interest ○ Enter interest ○ User.query(...) ○ Display names of student 	1.5 week	D
7	Update account information	<ul style="list-style-type: none"> ● Settings option in profile page allows user to make changes to: <ul style="list-style-type: none"> ○ Email ○ Password ○ Login ○ Profile Name 	.5 week	O
8	Change my profile picture	<ul style="list-style-type: none"> ● On profile page, an option to updating profile picture provided <ul style="list-style-type: none"> ○ Upload any jpeg/png/jpg file 	.5 week	O
9	Have my own unique profile page	<ul style="list-style-type: none"> ● Each user has their own tailored profile page <ul style="list-style-type: none"> ○ /<user> in address bar 	1 week DONE	E

		<ul style="list-style-type: none"> ○ Can be visited by anyone <ul style="list-style-type: none"> ■ Logged in or not ○ Only show name, picture, status, and top 3 interests 		
10	Post a Header Status	<ul style="list-style-type: none"> ● Can post status for their profile page <ul style="list-style-type: none"> ○ Create a status option ○ Status can be viewed by someone visiting your user profile page. 	.5 week	O
11	Add Friend	<ul style="list-style-type: none"> ● Ability to add friends <ul style="list-style-type: none"> ○ Once grouped, the user has ability to search within interest pool ○ Visit student's profile page ○ ID check to see current_user is not profile page visited ○ Prompted to be able to add the user as friend. ○ Many to many database involved ○ Receiving party will be notified 	5 week DONE	E

		of a friend request to be accepted or denied		
12	Chat with friends	<ul style="list-style-type: none"> Once user is added as a friend, they can chat between the two <ul style="list-style-type: none"> Using socket.io plugin for flask Aiming for private messaging room If not, it will be a chat forum with everyone <ul style="list-style-type: none"> Not limited to major or interests Includes all registered users 	6 weeks DONE	E
13	Delete my account	<ul style="list-style-type: none"> Profile page setting allows user to delete account and all information. <ul style="list-style-type: none"> Deletes account from database, can't be recovered 	.5 week	O
14	Remove friend	<ul style="list-style-type: none"> If on another user's profile page that is already a friend, have the option to remove that user as a friend from their friends database table 	.5 week	D
15	Block user	<ul style="list-style-type: none"> If on another user's profile page, 	2 weeks	O

		<p>have the option to block that user:</p> <ul style="list-style-type: none">○ Users will no longer have the option to be friends with each other○ Users cannot be matched through their interest database tables○ User that initiates the block has the option to remove the block, reverting the database table to the original table.		
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Team 15

John Hoang, Gurvin Kohli, Daniel Tran, Edgar Yu

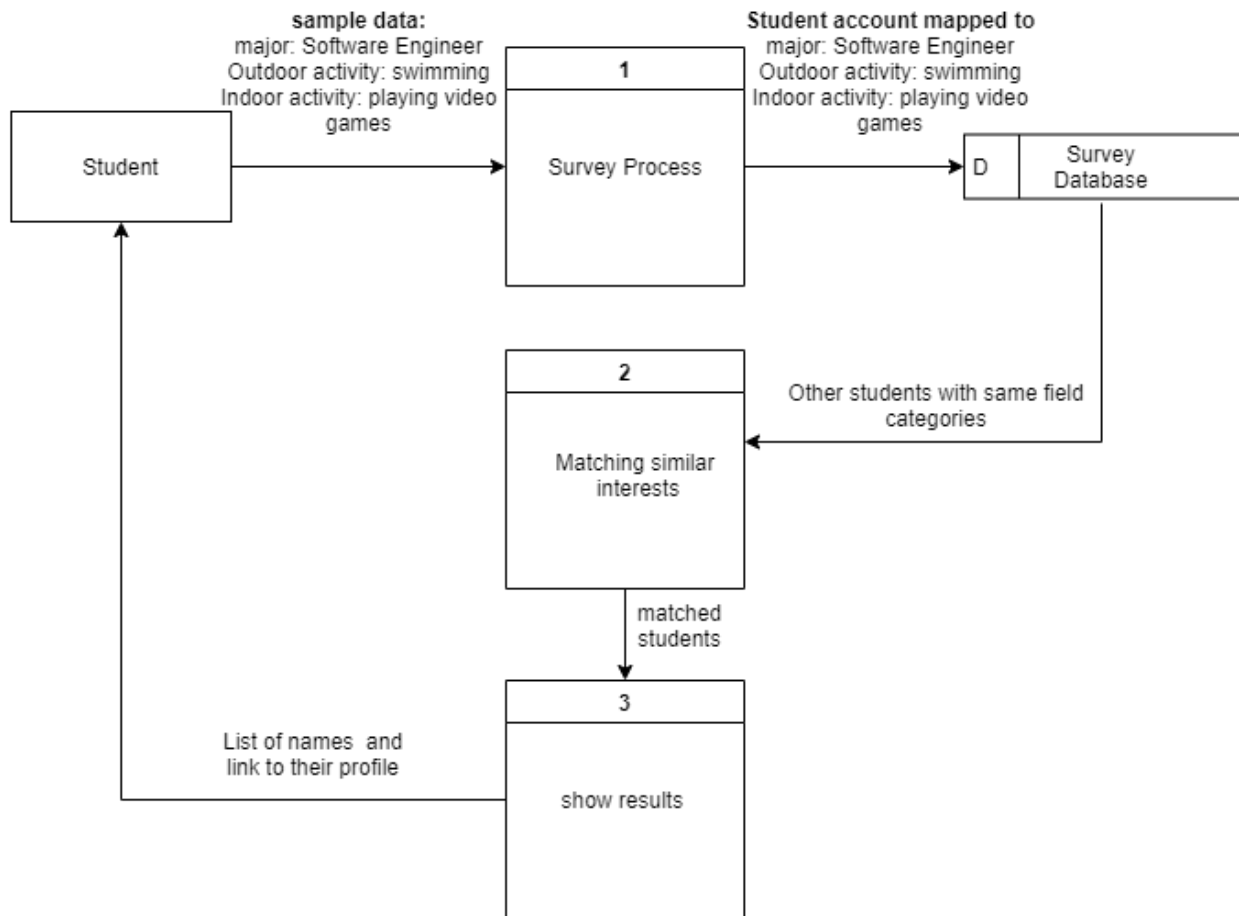
Project:

Archer

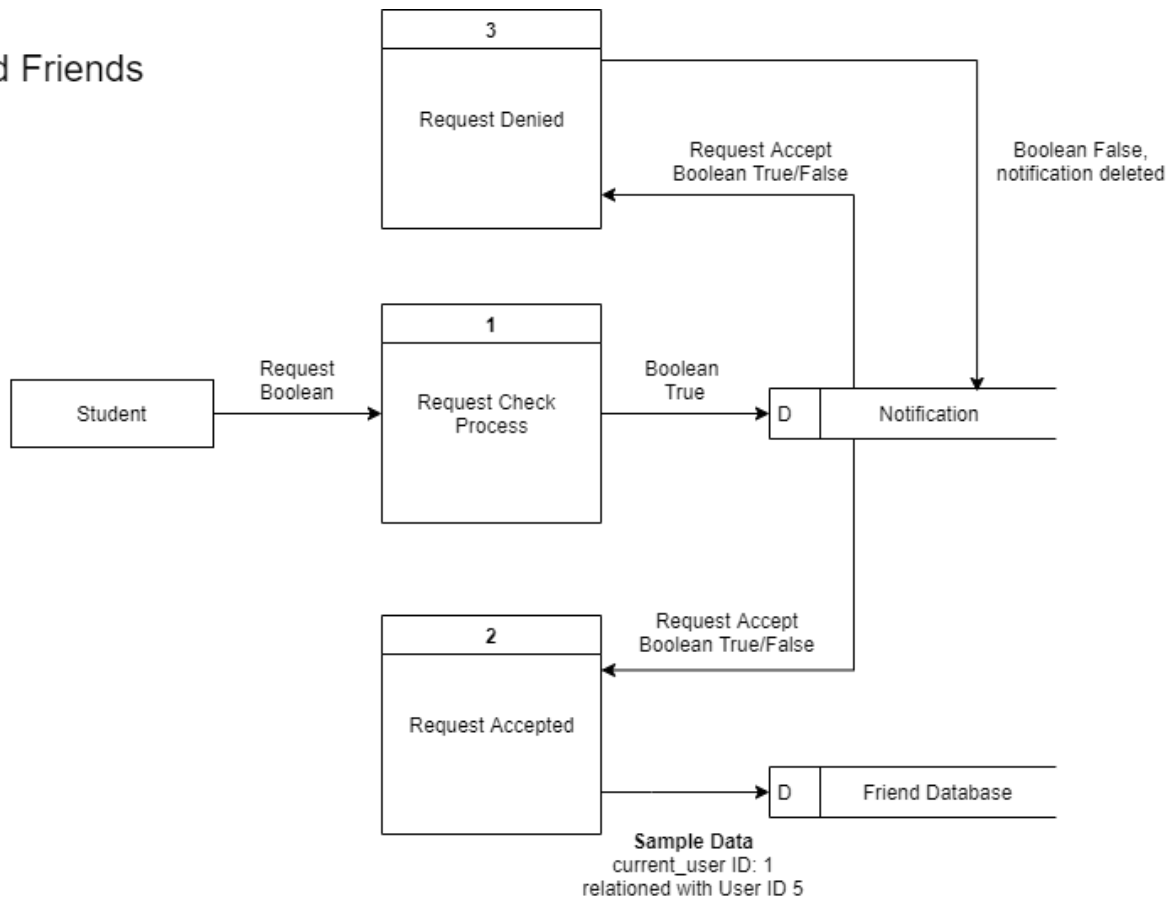
Data Flow and UI Transition Diagram

Data Flow Diagrams

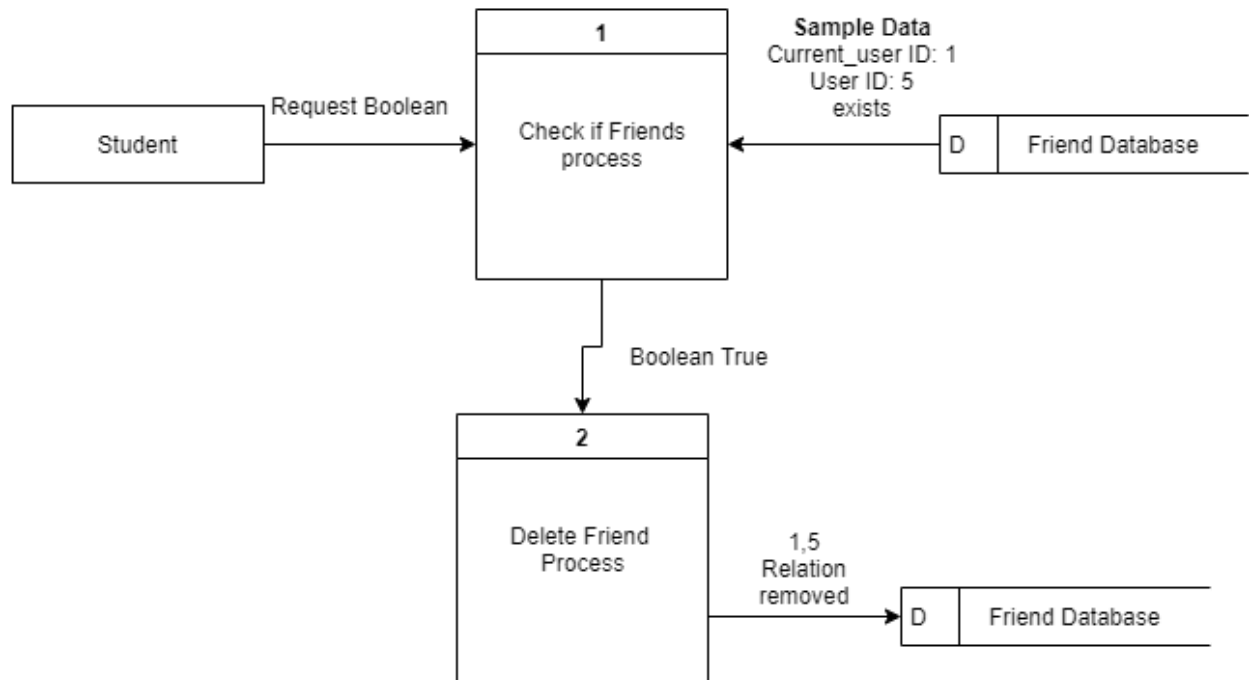
Group Similar Students

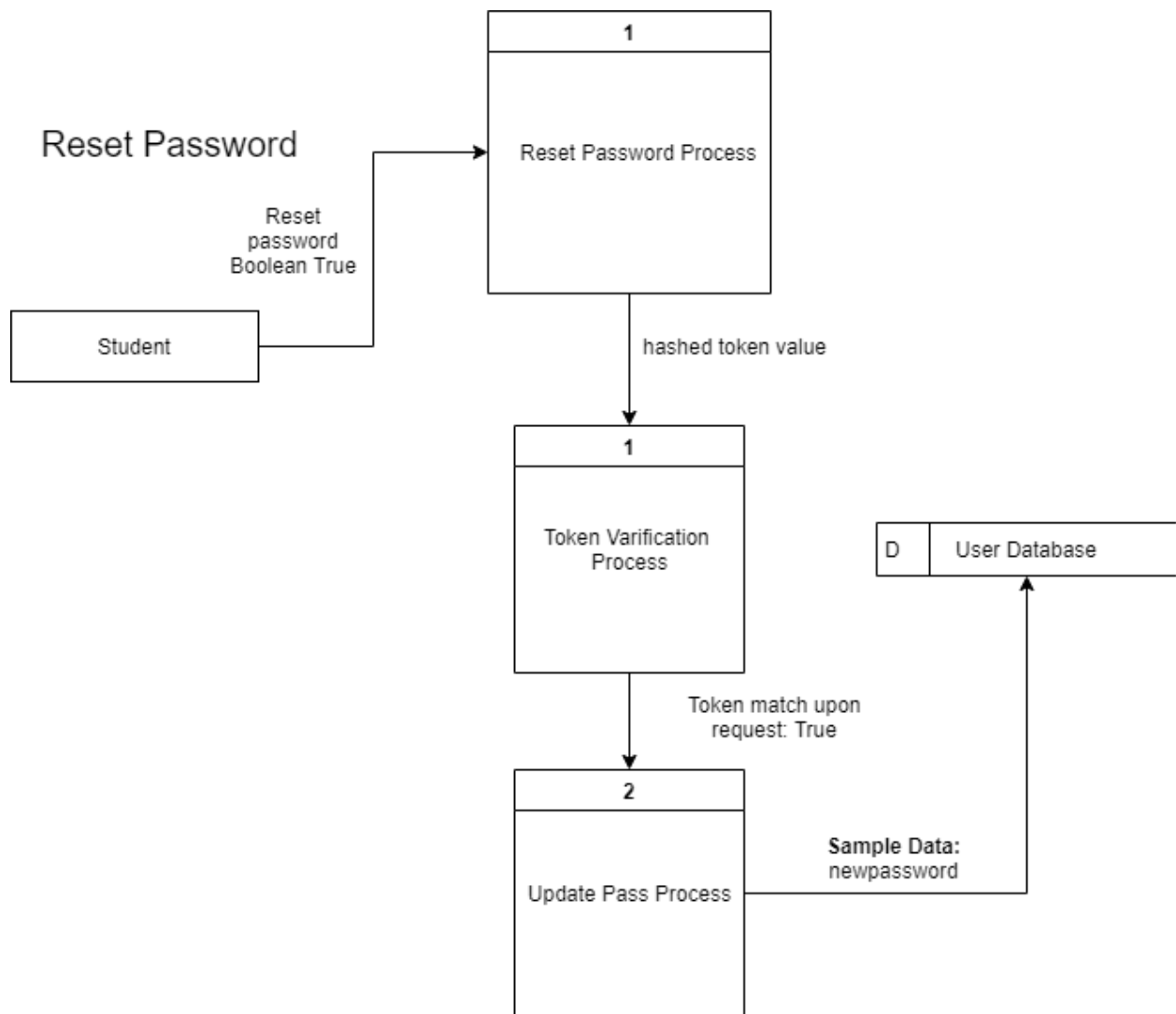


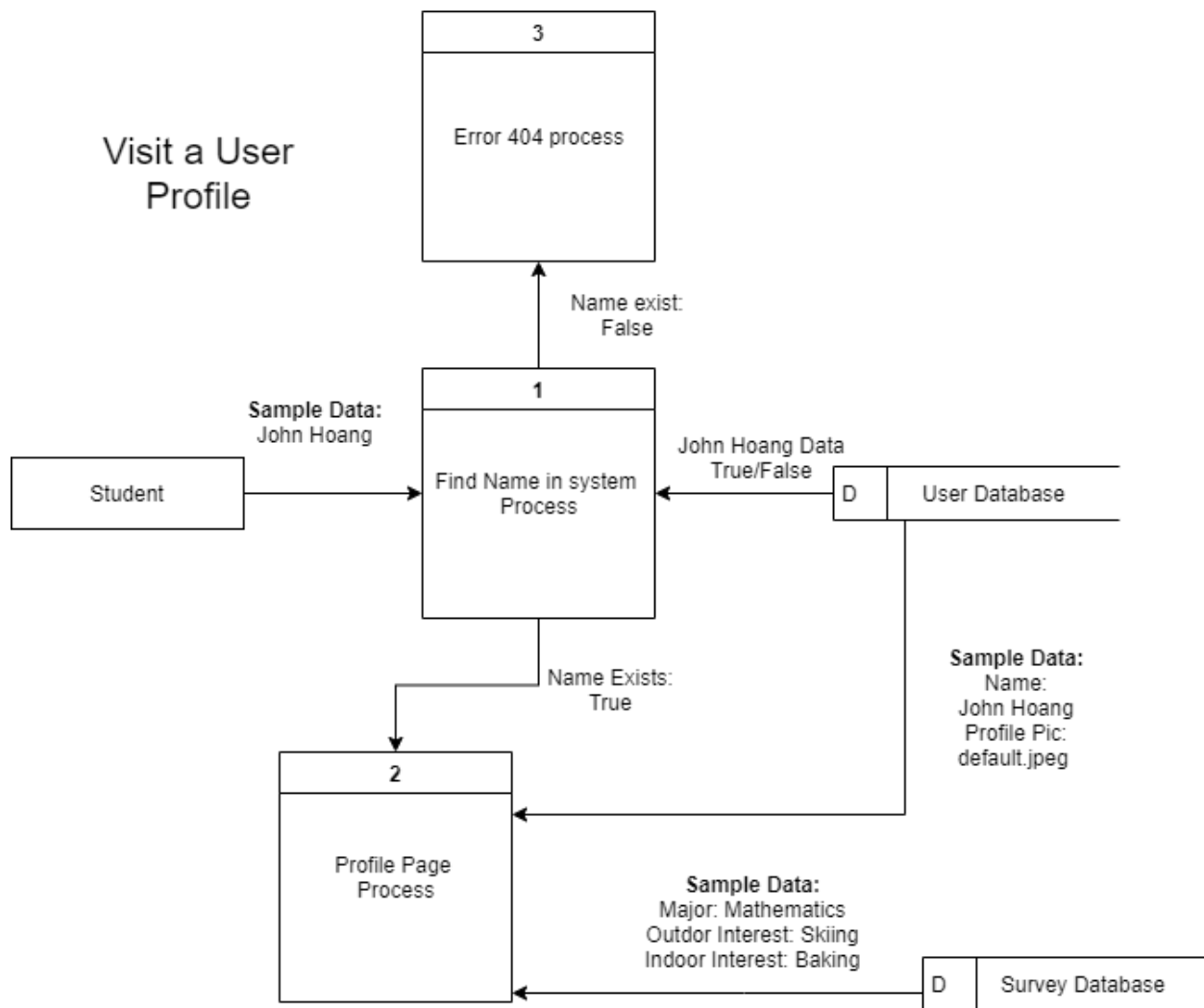
Add Friends



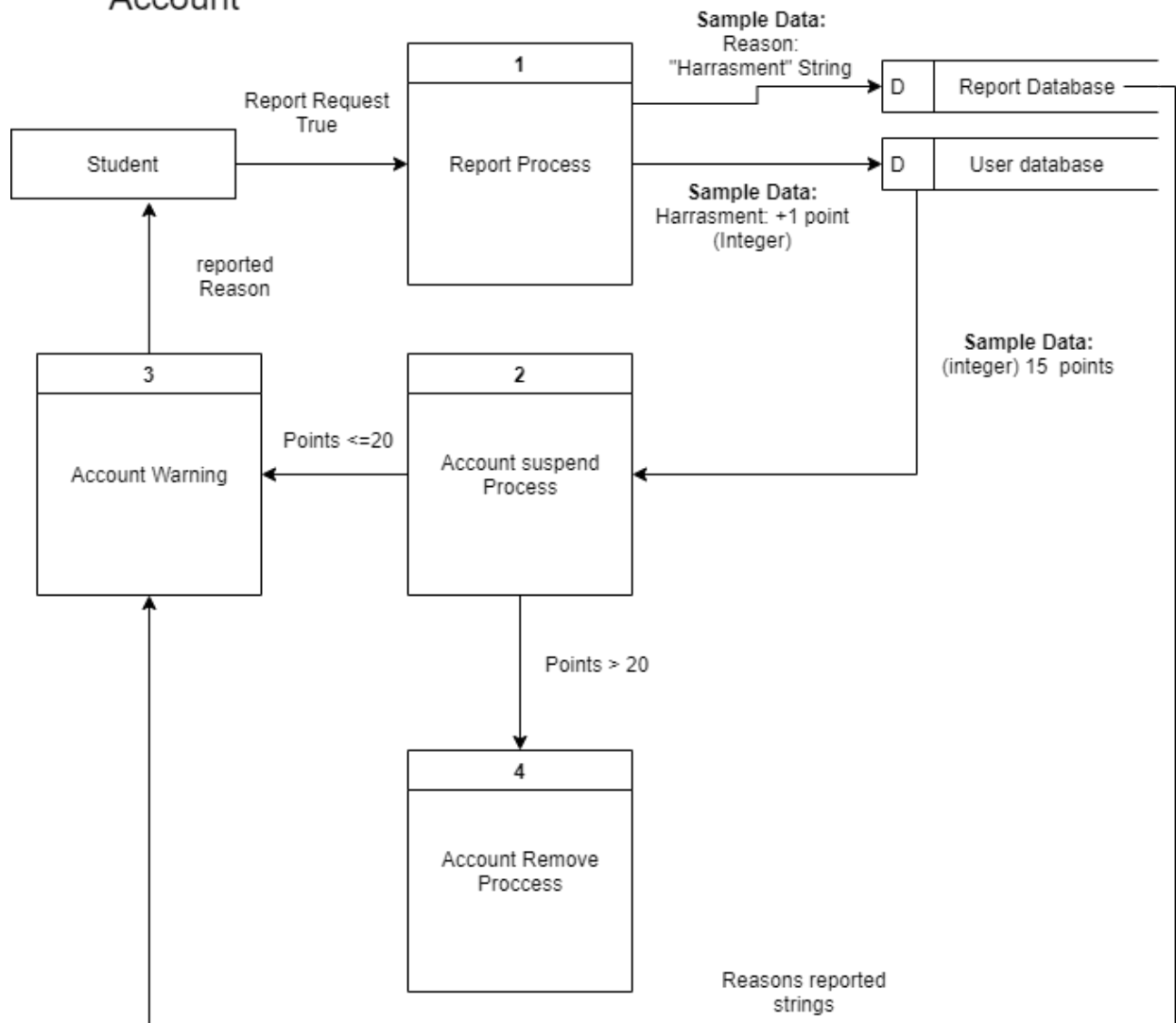
Remove Friend



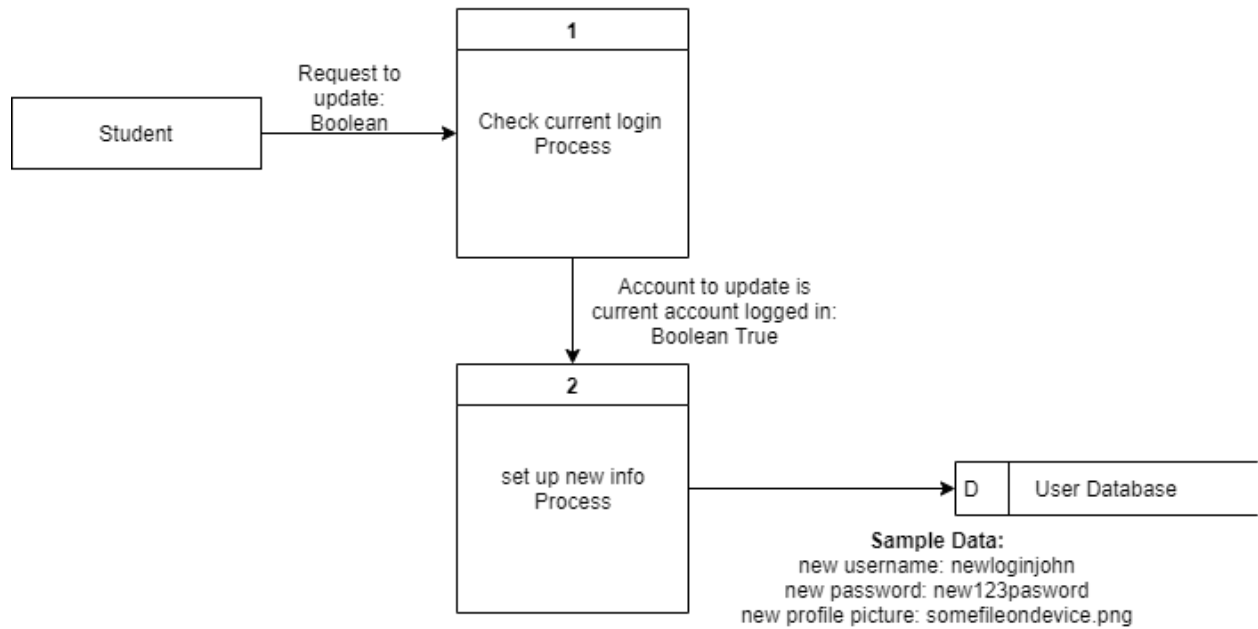




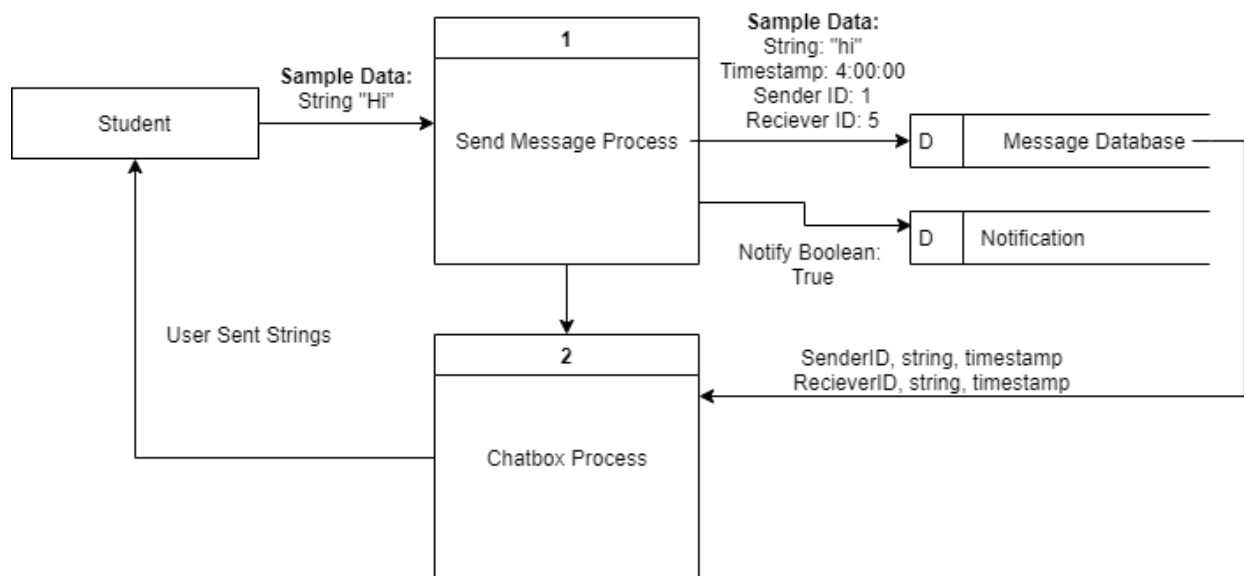
Reporting an Account



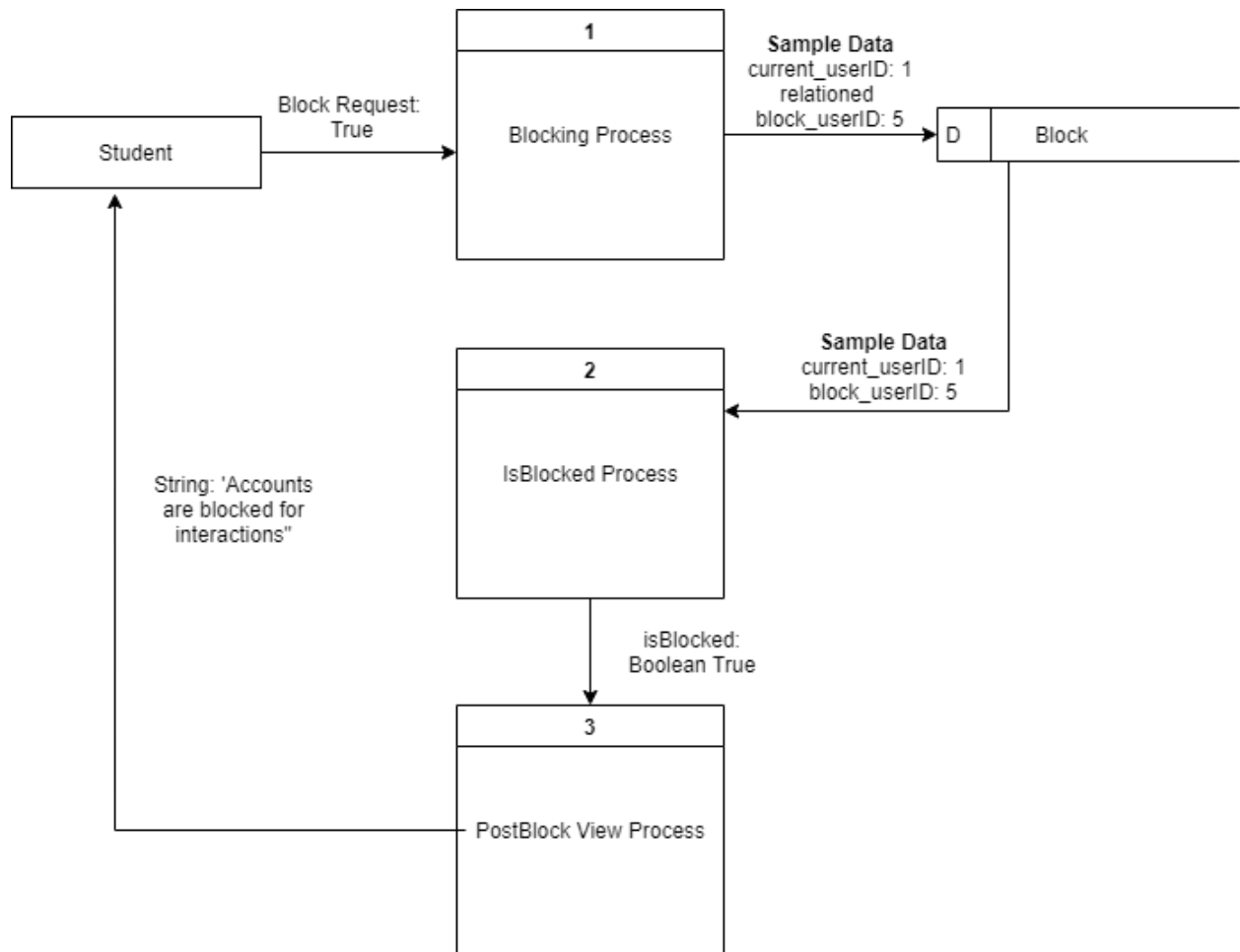
Update Account information



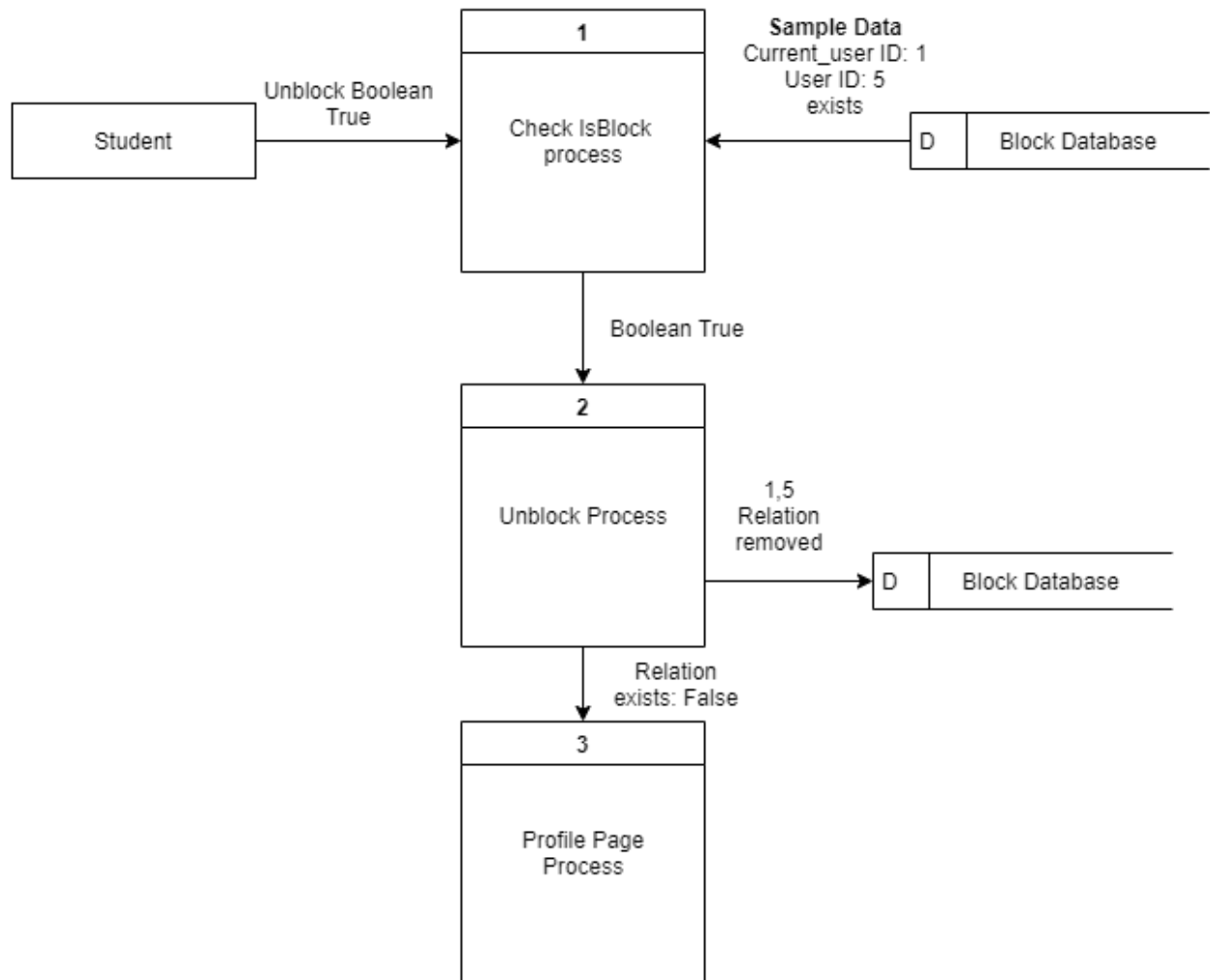
Messaging



Block Users

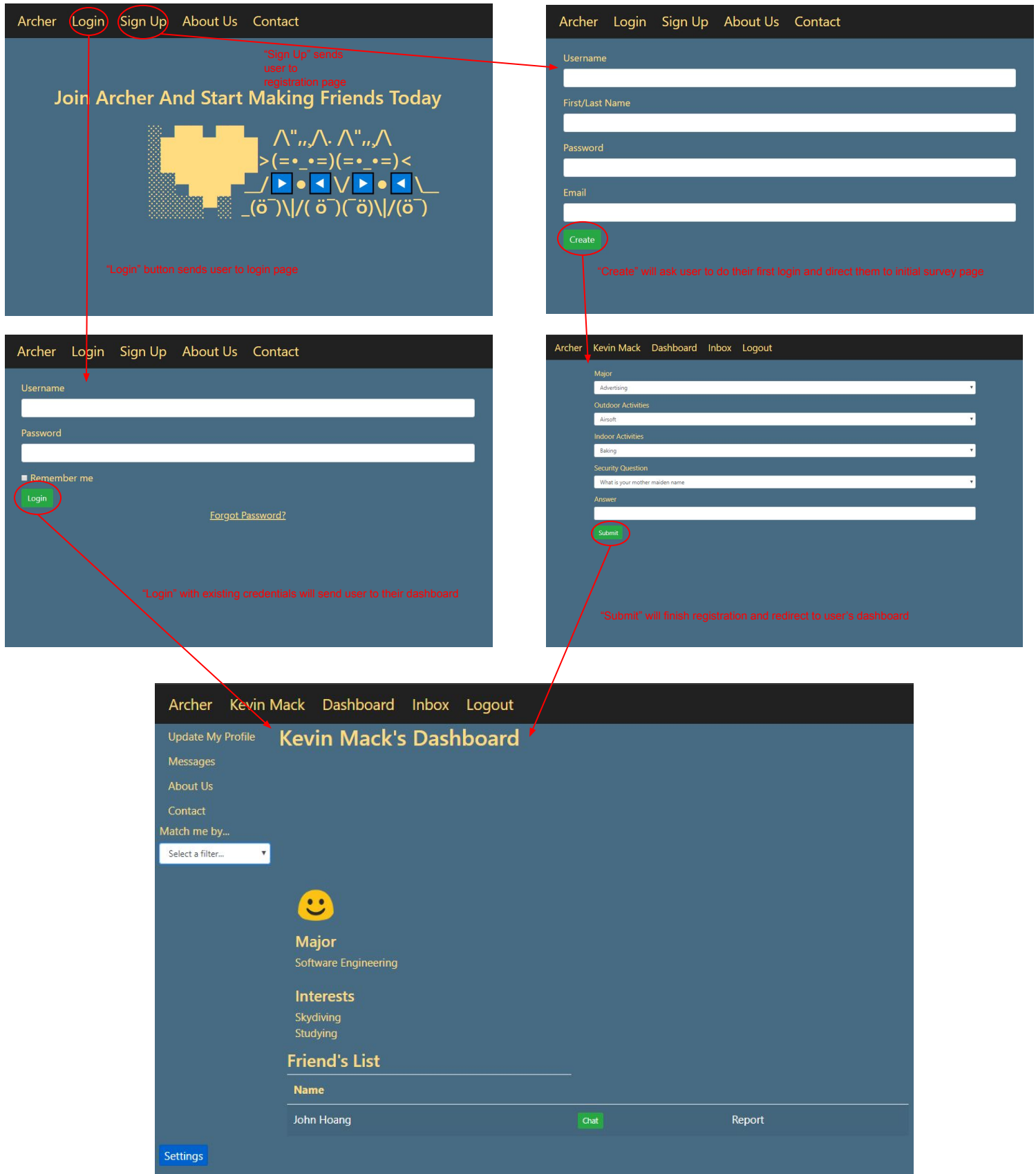


Unblock



UI Transition Diagram:

Login/Registration:



Matching/Other User Interactions::

Archer Kevin Mack Dashboard Inbox Logout

Kevin Mack's Dashboard

Update My Profile

Messages

About Us

Contact

Match me by...

Select a filter...

"Match me by..." drop-down menu matches user by selected filter (major, indoor interest, outdoor interest)

😊

Major

Software Engineering

Interests

Skydiving

Studying

Friend's List

Name	Chat	Report
John Hoang		

Settings

Archer Kevin Mack Dashboard Inbox Logout

bottest My Profile

Major

Reiselect Major...

Outdoor Activities

Reiselect Outdoor Activity...

Indoor Activities

Reiselect Indoor Activity...

Select

"Update My Profile" button will allow user to edit their majors and interests

"Select" button will save changes and redirect user back to their dashboard

Archer Kevin Mack Dashboard Inbox Logout

Hello Kevin Mack

Match me by...

Select a filter...

These people are in the same major:

- Software Engineering, Daniel Tran
- Software Engineering, Edgar Yu

Clicking on a name will show user that person's dashboard

"Settings" button allows user to update username, password, and/or profile picture.

Archer Kevin Mack Dashboard Inbox Logout

Update login username

Update Password

Confirm Password

Update Picture Choose File No file chosen

Update

"Update" button will save changes and redirect user back to their dashboard

Archer Kevin Mack Dashboard Inbox Logout

Update My Profile

Messages

About Us

Contact

Match me by...

Select a filter...

😊

Add Friend

"Add Friend" button adds this account as a friend

Send private message to Daniel Tran

Major

Software Engineering

Interests

Swimming

Video games

Report Block User

Settings

"Report" button directs user to report page

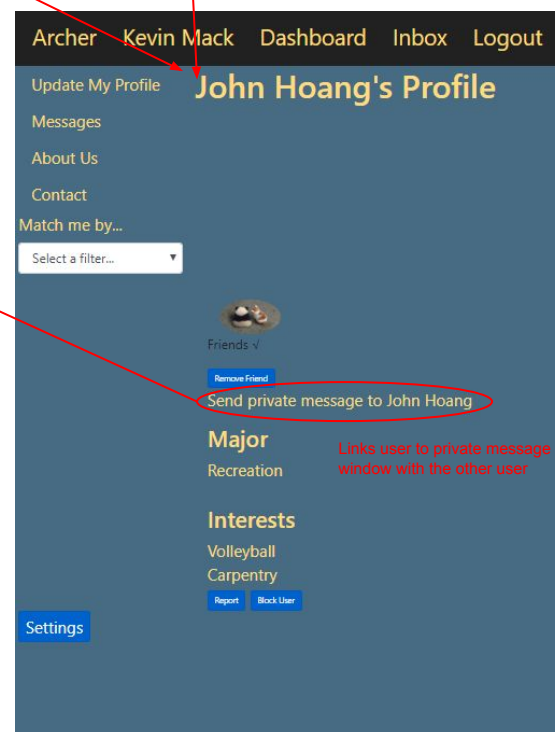
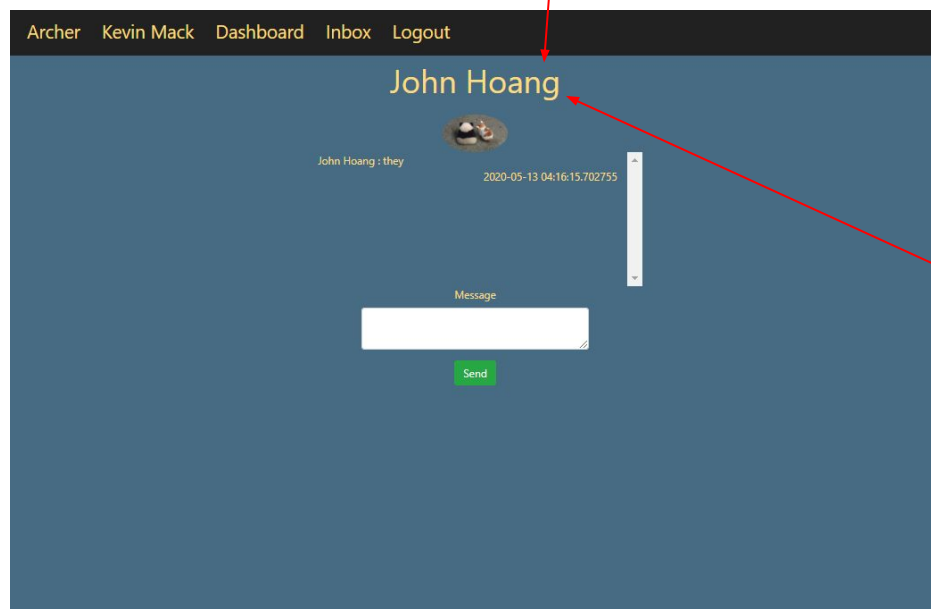
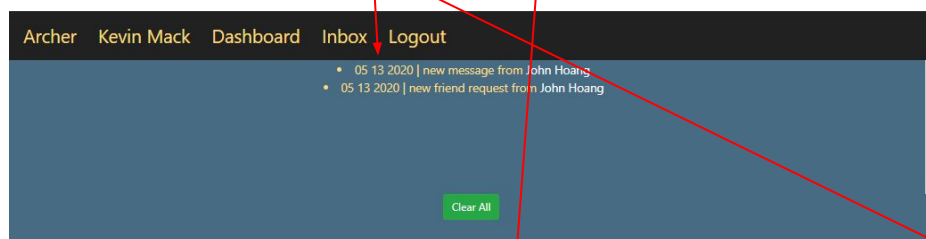
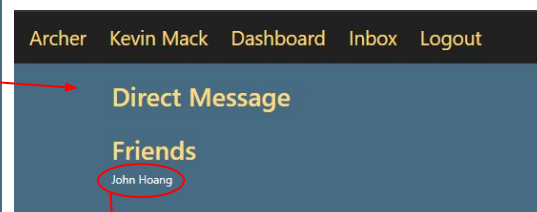
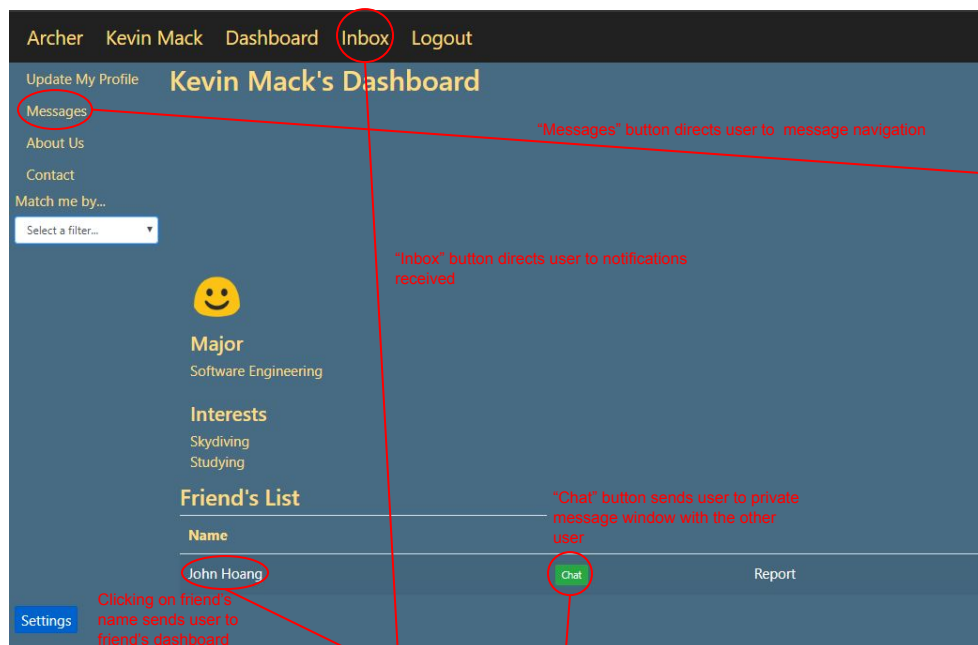
Archer Kevin Mack Dashboard Inbox Logout

Report Daniel Tran

Reasons

Harrasment

Submit



Archer Login Sign Up About Us Contact

Username

Password

☐ Remember me

Login

Forgot Password?

"Forgot Password?" button sends user to password reset request page

Archer Login Sign Up About Us Contact

Reset Request

Security Question

What is your mother maiden name

Answer

email

Request Password Reset

"Request Password Reset" will direct user to Reset Password page if the security question answer and email are valid

Archer Login Sign Up About Us Contact

Sending you to reset password

Reset Password

password

Reset Password

"Reset Password" button will send user back to login page

5/02/20

Ishie

Project Archer

[Group 15] - Test Cases and Traceability Matrix

Team Members: John Hoang, Gurvin Kohli, Daniel Tran, Edgar Yu

Test Cases

ID	Requirements	Test Case	Expected Output
1	Create my own account	<ol style="list-style-type: none"> 1. Click sign up in the navigation bar 2. Enter a username <ol style="list-style-type: none"> a. If taken, asked to choose another 3. Enter a password 4. Enter an email 5. Enter your full student name, first and last 6. Click sign up button 	<ol style="list-style-type: none"> 1. Screen redirects to login page 2. Flash message “Account created!” 3. Prompts for login information <ol style="list-style-type: none"> a. login/password
2	Log in to my account	<ol style="list-style-type: none"> 1. Click login in the navigation bar 2. Enter your username 3. Enter password 4. Click login 	<ol style="list-style-type: none"> 1. Screen redirects to dashboard 2. Flash message “logged in!”
3	Fill out a personal survey	<ol style="list-style-type: none"> 1. Applies to new accounts <ol style="list-style-type: none"> a. Log in after creating a new account b. Choose options for user’s major, and one interest for both indoor and outdoor interest c. Click submit 	<ol style="list-style-type: none"> 1. Screen redirects to dashboard
4	Update interests	<ol style="list-style-type: none"> 1. Click ‘dashboard’ 2. Click ‘update my profile’ 3. Choose options for a new interest 4. Click submit 	<ol style="list-style-type: none"> 1. Screen redirects to dashboard 2. Flash message “interest updated” 3. See new interests on the dashboard
5	View my matches	<ol style="list-style-type: none"> 1. On the dashboard, click drop down bar by ‘match me by...’ 2. Choose an option <ol style="list-style-type: none"> a. Match by... <ol style="list-style-type: none"> i. Major 	<ol style="list-style-type: none"> 1. Screen redirects to match page 2. Shows name of users with matching interests or major 3. If no matches for interest,

		ii. Outdoor iii. indoor	the message prompts “no matches, choose another interest” 4. If no matches for major, the message prompts “no matches, hopefully, another student will join”
6	Talk with my matches	1. Select a filter to match with people on the dashboard 2. Click on a name that interests you 3. Click on send a private message 4. Type in a message 5. Click send	1. Screen refresh 2. Chatlog will appear with all messages sent back and forth
7	Add Friends to keep track of	1. View matches 2. Visit their profile by clicking on their names 3. Click ‘add friend’	1. Screen redirects to dashboard 2. Under the friend list, the friend is now listed.
8	Update my account information	1. On dashboard, click update Account on the bottom 2. Type in either <ol style="list-style-type: none"> New login (must be unique or else error message will appear) New password Upload a new profile picture 	1. Redirects to dashboard 2. Shows new profile picture if updated 3. New login or password updated in the database if a new entry was added.
9	Block people so they can’t interact with me	1. Visit their profile 2. Click block user	1. Redirects to dashboard 2. Flash ‘Account blocked’ 3. Any future searches prevents name their name as well as your name from being shown to each party
10	Report users for behavior	1. Visit profile 2. Click report	1. Redirect to dashboard 2. Flash “Account Reported”

11	Delete an account after N number of reports	<ol style="list-style-type: none">1. Report user total of 5 times2. 4th report, Reported user will get account deletion warning	<ol style="list-style-type: none">1. Click inbox on navigation bar2. If notification prompts warning message, that is report #43. If next login unsuccessful, account has been terminated
12	Update my interests to find more people	<ol style="list-style-type: none">1. Click on my profile in dashboard2. Choose new options3. Click save	<ol style="list-style-type: none">1. Screen redirects to Dashboard2. Shows updated major3. Future matches show new interests with new list of people

Traceability Matrix

User Stories	Backlog Items	Test Cases
As a user, I want to find people in the same major	1,4,5	5
As a user, I want to find people who have similar interests as me	2, 4, 5	5
As a user, I want to find and add friends to stay connected with	5, 11	6
As a user, I want to chat with friends	11, 12	6
As a user, I want to report a user in my friend list	14, 15	10
As a user, I want to block someone who I don't like	15	9
As a user, I want to update my major and/or interests to reflect real life and find accurate matches	3	4