

## **Project Overview**

The goal of the system is to increase student communications at the University of Alberta. Nim will allow users to subscribe to 5 “channels” aka classes, plus the CampusSocial channel. Users will then be able to chat with others in their channels. Users may also choose to send a connection request to other users. Provided the other user accepts the connection request, both will then be able to have a private chat. It will be used for students enrolled at the University of Alberta. It will be available as an Android application.

## **Requirements**

### ***Sprint 0***

0. As a user, I want to be able to navigate the app using a user interface. 5 points (Kelsey, Nancy, Nhu)

Tasks:

Investigate google engine(Valerie)

Investigate google API(Cole)

download Android Studio on our computers(everyone)

### ***Sprint 1***

1. As a user, I want to be able to log in to the app using my University of Alberta email address and my password. 8 point (Valerie)

Acceptance Criteria: There is a nice log-in screen, and only users with the University of Alberta email address can log in. There will be an option to log-in with gmail.

Tasks:

1. Investigate the University of Alberta's Identity Management Services(IMS) and the google API

2. Use whichever API is more appropriate(which ever one the client wants to use) to implement a log in

3. function in the app using a university of alberta gmail account or ccid(depending on which API is used) by creating the log-in screen displaying and the Nim image. (see log in screen mockup)

2. As a user, I want to be able to view a list of all channels that I can subscribe to.. 3 points (Cole)

Acceptance Criteria: For now, just have a hardcoded list of channels that are clickable, but clicking them will do nothing for now.

Tasks:

1. Create an activity that displays a listview of channels, which are hardcoded in for now.

2. Make this activity accessible by pressing the add button on the my channels screen.

3. As a user, I want to add/remove channels from my channels screen. 10 points (Nancy)

Acceptance Criteria:

My-Channels screen:

- users can add/remove channels from the my channels (up to 5). (Nancy)

Tasks:

1. Create a new screen for “my-channels”
2. In the listview of channels mentioned in user story 2, it should be possible to add the channel to the my channels screen(i.e. subscribe to it) by some mechanism(e.g. by pressing a button in the listview element or by tapping the element)
3. In the my channels screen, tapping the edit button should allow the user to select channels to be deleted.

4. As a user, I want to be able to change my default username (which is their ccid) from my profile page and then be notified with a message stating that other users will now be able to see my email address to promote accountability if those users look at my profile page (see user story 9). 8 points (Nhu)

Acceptance Criteria: There is a user creation screen. users can fill in their information, save it, and are able to edit their information. For now, the only information needed is the username, the user's email address(with a check box for privacy or public),

Tasks:

1. Create an activity that allows the user to see their username, profile picture and email address. The username is editable.
2. Make this activity accessible from other activities(e.g. through the menu button)

5. As a user, I want to activate and deactivate channels on my channels screen so that I only receive notifications from active channels. 3 points (Kelsey)

Acceptance Criteria: The icons appear on the channels, and when clicked on, change the icon to either active or non-active. A user can only be active on the channels when they are located on campus.

Tasks:

1. Make it possible to toggle any activity on the my channels page between active and inactive through some mechanism(e.g. by tapping and holding on the channel)

## ***sprint 2***

6. As a user, I want to be able to search a list of all channels available for subscription using a search bar. Exact or closely matched channels will appear at the top of the list(if any exist, i.e a fuzzy search). 1 point

acceptance Criteria: There is a list of channels, and when the user inputs the name of a channel in the search box, the channels will display at the top

Tasks:

In the activity from user story 2, there should be a search bar above the listview of channels. When the user types in the search bar, the channels in the list will be sorted based on the input.

7. As a user, I want to be able to make posts in a channel that I am subscribed to. 5 points

acceptance Criteria: a user can send a message in the chat channel and the respective channel will see it. For this story, we do not need to have the message

pushed to server yet., since there is another User Story for pushing: “ As a user, my messages posted in a channel will be pushed to a server and be viewable to others subscribed to the same channel. “

#### Tasks

A text box will be added to the bottom of the activity that displays the chat. New posts will be typed in that box.

A post button will be added beside it.

Pressing post must create an object that describes the new post

Code must be added that adds the new post to the list of posts associated with the channel the post is made in.

Code/xml files must be added to make the list of posts associated with the channel appear in a listview in the chat under that channel.

This could require a custom arrayadapter to be developed

8. As a user, my messages posted in a channel will be pushed to a server and be viewable to others subscribed to the same channel. 10 points

acceptance Criteria: Backend code has to be created. Messages will be pushed to google engine, and other apps can pull the messages and display it on respective channel screen.

#### Tasks:

The google engine needs to be researched to a greater extent

If there is any code that needs to be added to the project in order to use the google engine, then it needs to be added to the project.

An account needs to be created for us to use to store data using google engine.

Code must be added to push local additions to the channel's list of posts to the google engine database.

Code must be added that causes any user's app to pull any new posts from the database from any channels that they are subscribed to periodically

If there are any resulting race conditions, they will need to be dealt with.

Write code to push the new profile information to the server, overwriting any existing information associated with the same ccid.

9. As a user, I want to be able to view other user's profile details such as their profile image and username by clicking on their username. Their email address will also be displayed if they change their username to something other than their ccid. 1 point

acceptance Criteria: Clicking on the user's username will display a new screen that contains all of their user profile information.

#### Tasks:

An activity that displays this information must be created.

This activity must be made accessible from any chat by tapping on the username associated with the post.

The activity needs to be able to pull all of the information related to the user from the database on google engine.

### **sprint 3**

10. As a user, I want to be able to attach pictures to my posts in channels and connections from my phone's gallery or by taking a new picture with the camera 3 points

acceptance Criteria: by the text box, there will be an option to attach an image. Images can be from gallery or new picture. \*see story board image of chat screen

Tasks:

A button must be added beside the text box for entering a post.

Pressing this button will bring up a box allowing the user to choose between choosing an existing image from their gallery or taking a new picture with the camera.

Once the user choosing a picture(or takes a new one), that image is shown when the post is made.

Code must be added to add the selected picture to the post object.

Support for displaying the image associated with posts must be added to the layout.

If there is a performance issue, it may be necessary to add code to compress images.

11. As a user, I want to be able to see which users are on campus and online. 10 points

acceptance Criteria: Users in the chat that are online and on campus have a green circle in the bottom left corners of their posts.

Tasks:

Permissions must be added to the app to allow the app to obtain the user's location

Code must be added to obtain the user's location

Criteria must be determined to define whether or not the user is consider to be on campus.

Code must be added to test whether or not the user is on campus based on the above criteria.

Code must be added to push the result of this test.

It must be decided how often the user's location should be checked

12. As a user, I want to be able to see which users are online. 10 points

acceptance Criteria: Users in the chat that are online will have an orange circle in the bottom left corner of their posts if they are off campus and a green circle if they are on campus. Online users have the channels activated vs deactivated.

### **sprint 4**

13. As a user, I want to be able to send a request to other users to chat privately(i.e. request a connection) 5 points

Acceptance Criteria: By clicking on the connection button from the user's post. the connection button will then be greyed out.

14. As a user, I want to be able to receive requests from other users to chat privately(i.e. accept a connection) 5 points

acceptance Criteria: a notification pop-up will appear asking to accept or reject when other users send a connection request

15. As a user, I want to be able to chat with other users privately(i.e. through a connection) if they accept my request 5 points

acceptance Criteria: When another user accepts a chat request, they will appear in the “Connections” screen. Clicking on their entry will open a new screen with messages to and from that user only.

16. As a user, I want to be able to see a list of people in my connections list sorted by who was interacted with last. 3 points

Acceptance criteria: More recent contacts will be listed first. Contacts that have sent chat requests that have not been accepted will be at the bottom.

## ***sprint 5***

17. As a user, I only want to load 20 messages at a time upon entering the channel-screen 8 points

acceptance Criteria: only pull 20 messages from the server at a time. Display a “Load more messages ...” that pulls 20 older messages when user clicks on it.

18. As a user, I want to be able to receive notifications from channels 5 points

acceptance Criteria: Display a red circle next to the channel on the “your channels” screen with a number will tell the user how many new posts have been made in that channel. Also the phone must be notified of a new message by sound and/or vibrate.

19. As a user, I want to see the timestamp of all chat messages 3 point

acceptance Criteria: a timestamp is displayed in the bottom right corner of each message, saying how long ago the post was made(e.g. just now, five minutes ago, etc.)

20. As a User, I want to change my default image in the profile page to a photo either taken with the phone’s camera or from the the phone’s gallery. 3 points

Iteration Plan		1 = 1 hour aka 1 day 3 = 5 hours aka ½ week 5 = 10 hours aka 1week 8 = 15 hours aka 1 ½ week 10 =20 hours aka 2 weeks	H- High M-Medium L- Low
Milestone	Activity	User Point	Priority
Iteration 1	R0	5	H
Iteration 2	R1	8	H
	R2	3	H
	R3	10	H
	R4	8	M
	R5	3	M
Iteration 3	R6	1	M
	R7	5	H
	R8	10	H
	R9	1	M
Iteration 4	R10	3	M
	R11	10	H
	R12	10	H
Iteration 5	R13	5	H
	R14	5	H

	R15	5	H
	R16	3	M
Iteration 6	R17	8	M
	R18	5	M
	R19	3	M
	R20	3	M

# Glossary

Users: Students registered in courses at the UofA who use the app.

Username: The name seen by other users when the user creates a post.

Channel: A chat that is specific to a certain class that a user may join, plus the CampusSocial.

System: The Nim application

Activate: Begin receiving notifications from channels that the user is subscribed to.

Deactivate: Turn off notifications from a channel that the user is currently subscribed to.

Connection: A private chat between two users when a request has been accepted.

Request: An invite to chat with another user.

Timestamp: The date and time when the user has made a post in the chat.

Active: A channel that is currently open for users to chat.

Online: A user that currently has the channel activated(able to receive notification). It does not matter whether they are on campus or not (A green dot would mean that they are on campus and a yellow dot means that they are not).

Subscribed: A user that is subscribed to a specific channel can view posts from a channel that they have subscribed to. These channels are shown in the my channels screen.

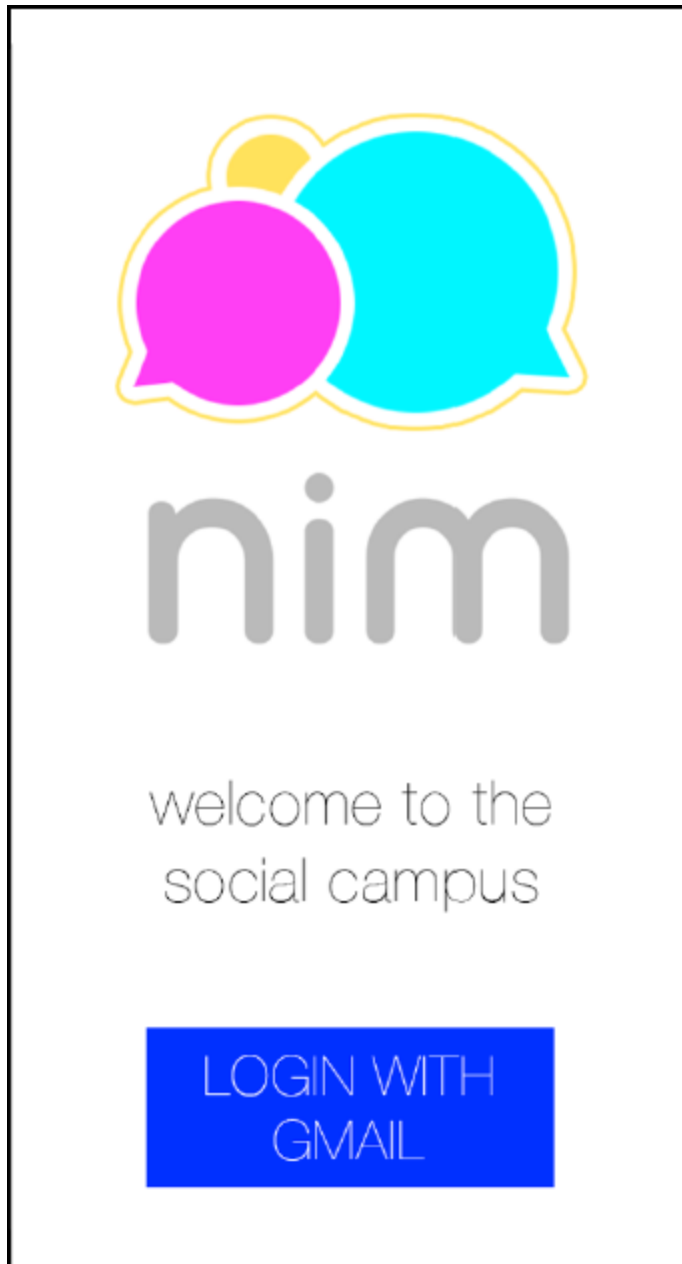
My Channels: a screen that displays all of the channels that the user is currently subscribed to. It has an add button at the bottom, which brings up a list of channels that can be added to this screen.

channel-screen: a screen that shows the posts made under a specific channel.



CampusSocial: is the only channel that is not related to Class names. Its the channel that gets added to “My channel” screen automatically. The purpose of the CampusSocial channel is for anyone who wants to post social events that is happening on Campus.

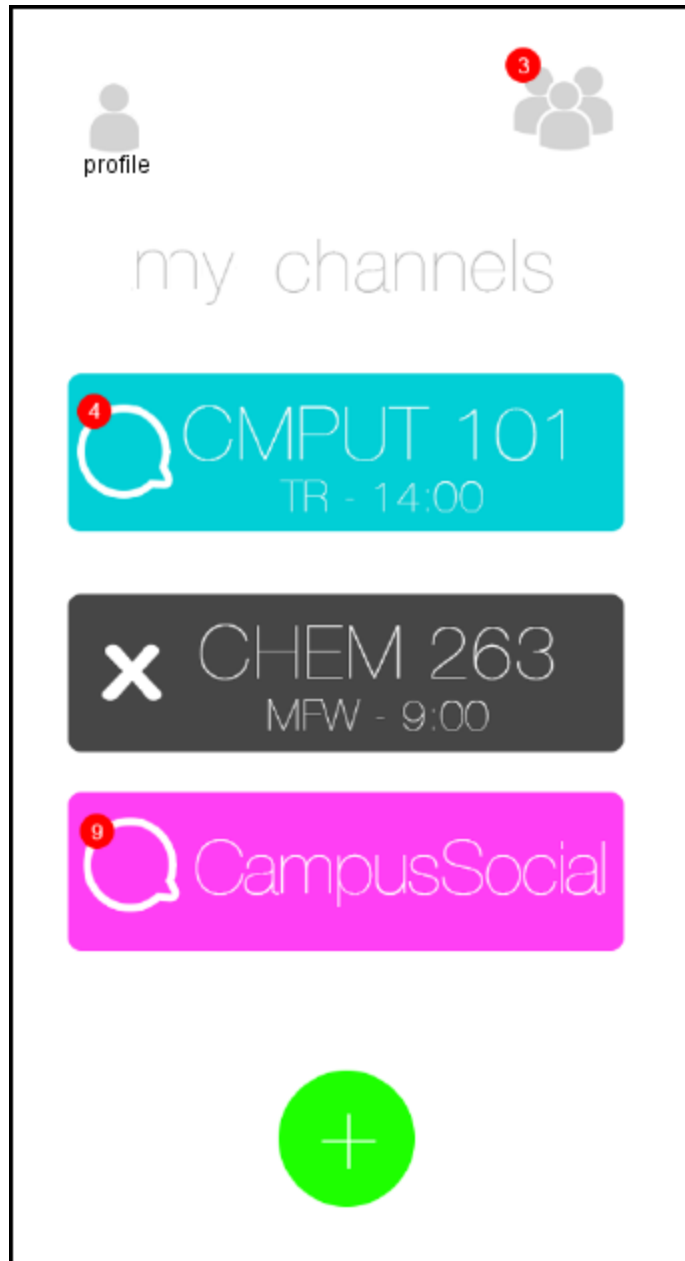
## Storyboard:



### Intro Screen

-Associated google email login must have a domain of ualberta

-Proceeds to *my channels* screen once the user has logged in



### **My Channels Screen**

-This screen displays all of the channels that the user has added

-The user will only receive notifications from the channels that they activated (shown to the left as a chat box and number)

-They can add new channels by pressing the + sign on the bottom of the screen

-The CampusSocial channel is automatically added to the my channels screen



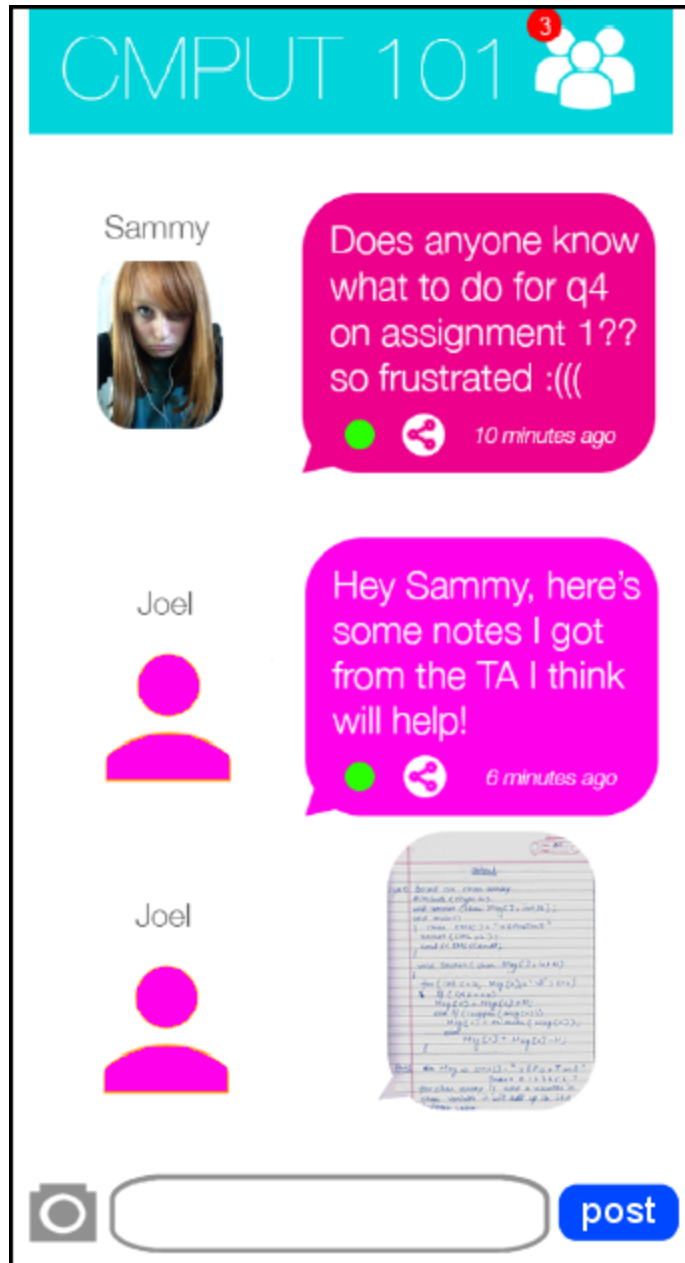
### Search Screen

-From this pop-up screen a user can search the list of classes

- The user can manually scroll through the classes or use the search bar to narrow down the results

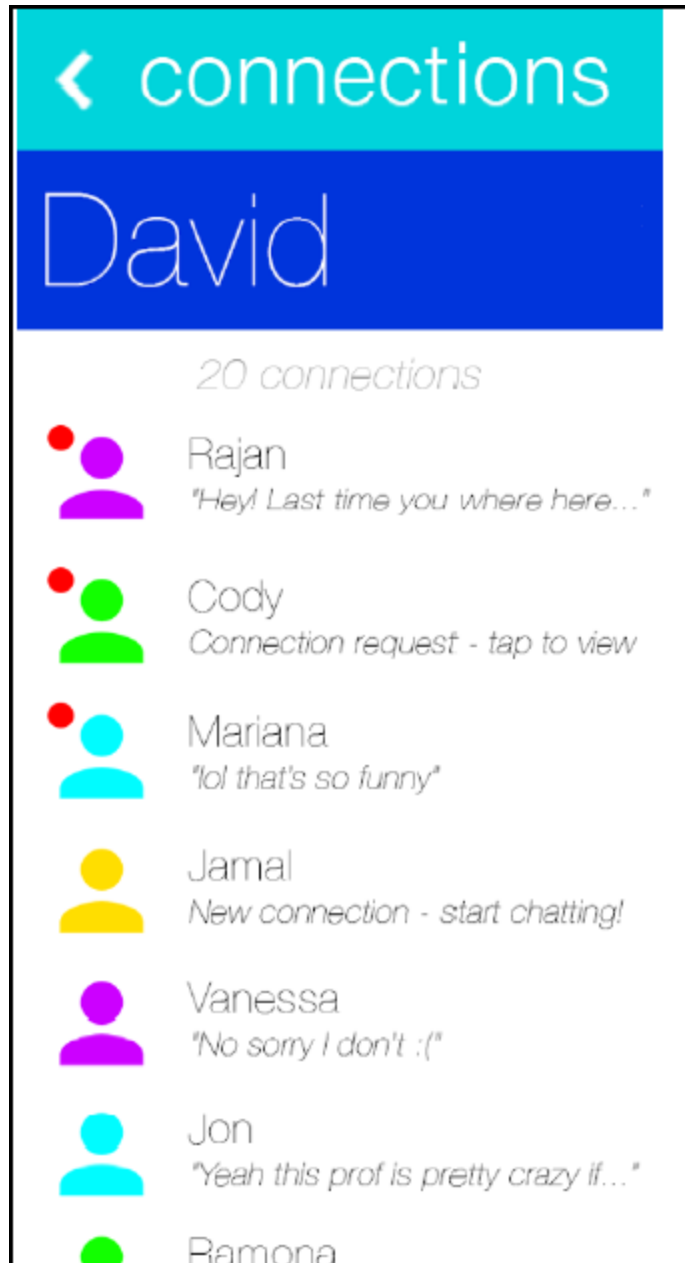
- To add a class, the user presses the + button next to the class they would like to add

- The user will confirm their selection and the class channel will be added to the *my channels* screen



## Chat Screen

-User's are able to chat with anyone in the CMPUT 101 channel



### Connections Screen

-List of connections that the user is chatting with

## Story Map

	Channels	Login	List of Channels	Connections	User Interface	Search	Online Status	User Profiles
<b>Sprint 0</b>					Navigate app using UI			
<b>Sprint 1</b>	Add/Remove Channels from the Channels Screen  Activate/Deactivate channels on channels screen so that notifications are received only from active channels	Login to app using ualberta email.	Be able to view a list of channels available where I can add one to my own channels screen.					Display/Edit profile information
<b>Sprint 2</b>	Be able to make posts in a channel  Messages posted in a channel are viewable to others subscribed to the same channel.	System only allows ualberta users to login			Search list of channels available using search bar.			View other user's profile details by clicking on their username.
<b>Sprint 3</b>	Attach pictures to posts in channels and connections from phone gallery or taking a new picture.						See which users are on campus and online.  See which users are online.	
<b>Sprint 4</b>				Send a request to other users to chat privately.  Receive requests from other users to chat privately  Chat with other users privately if they accept my request  See people in connections list sorted by who was interacted with last				
<b>Sprint 5</b>	Load 20 messages at a time upon entering the channel screen  Receive notifications from channels  See timestamp of all chat messages							Change default image in profile page to a photo either from the phone's gallery or camera.