M3: Requirements

Name of Project: Help!

1. Group members:

Legal name (as show on canvas):	Student Id:	GitHub Id
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2. Project Description:

The purpose of this project is to help UBC staff, students and visitors from all around the world (target audiences) to explore and rate restaurants, residences, entertainments, scenery spots and places to study at UBC. Users may choose to sort each kind of facility by ratings, prices, and number of rates. They can rate them and comment down below, including pictures, texts, and emoji; comments can be upvoted or downvoted. If users discover a new place on campus, they may send a request to add the place on the app to the administrators (us). Moreover, if a user's comment or post gets a response from other users they will get a notification on their end instantaneously.

3. Interesting Features:

Users can filter facilities by price, number of rates, shortest distance, and rating. Moreover, there is a merit-based points system within the app - users can earn titles and even prices if they make positive contributions for the system. For instance, if a user gets more than 1000 upvotes from a post they will receive 1000 points , be granted with a title and it will show up on their profile. The more upvotes one gets, the better titles they get on their profiles. Those with the highest titles will get awards from the app including a coupon for a restaurant at UBC or a free ticket for an event on campus. In addition, these users would be recognized as creditable users with an icon shown by its name and other contributions such as successfully report offenders, recommend new places for admins all counts as positive contributions.

4. A sketch of the main screen of our app:

Welcome User User **Username** level logo	This part shows who has logged into this device, and shows the user's logo and user level.
Hot post 1 Hot post 2 Hot post 3 Hot post 4	This part shows the hottest post (has most view or number of like in 3 days)
Hot restaurant 1 Hot restaurant 2 Hot restaurant 3 Hot restaurant 4	This part shows some hottest restaurant in the UBC
[navigation bar icons]	This is the navigation bar of our app, from left to right is "home page", "post", "restaurant", "entertainment", "study place", and "settings"

5. A use case diagram with actors and all functional requirements:
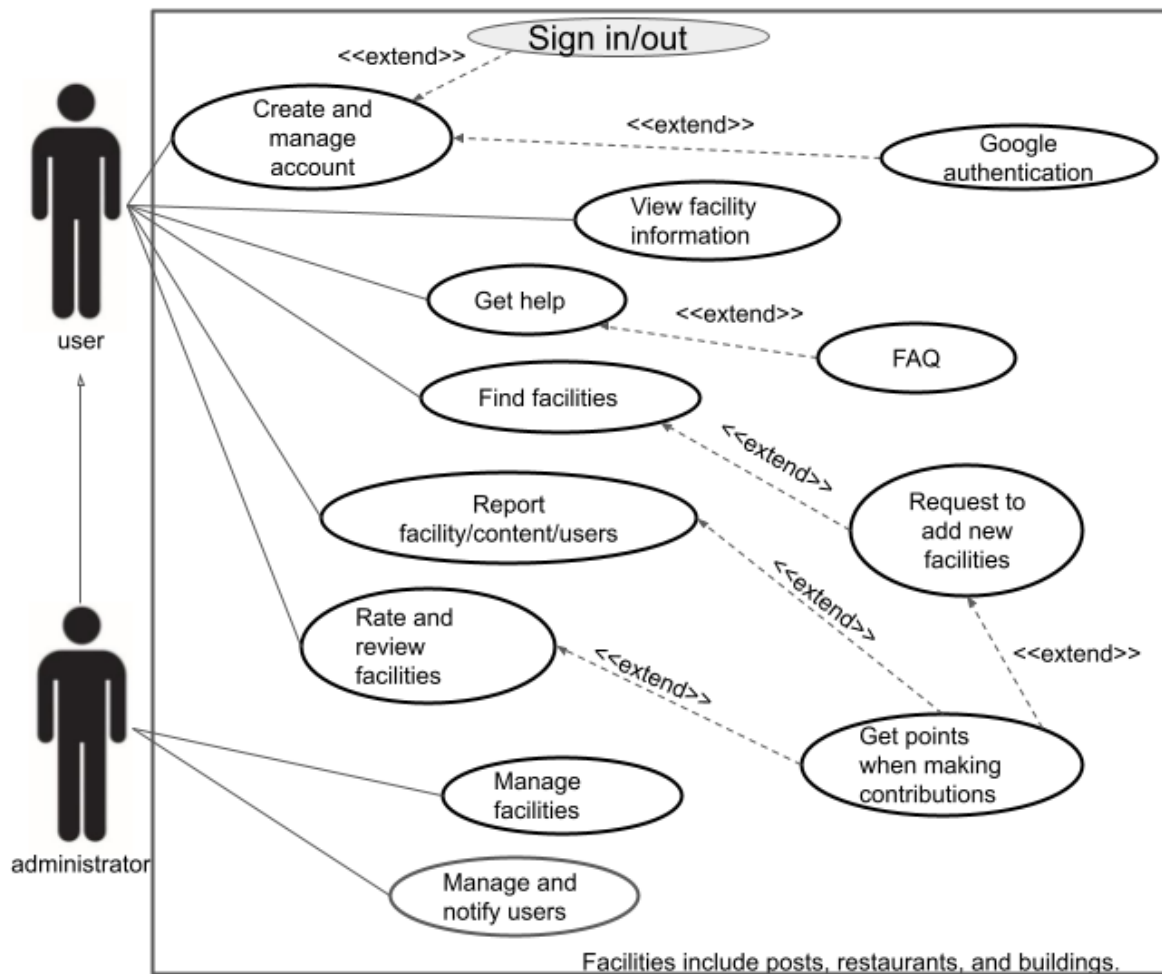
6. A (lightweight) formal use case specification of each requirement + screen mockups, if needed:

Title: Create and manage account

Description: Users can use google external API to log in/sign up. Afterwards, users can edit their images, names, bios in the settings. Or they can choose to delete their account or log out.

Primary actor: user

Preconditions: The user has to have a gmail account for google authentication service to sign up/log in. To edit user profile, the user must be already signed in.

Postconditions: The user has comment and rate comment, a profile successfully generated and features that only can be accessed by a registered user. User can also modify their profiles and see the changes immediately.

Main Success Scenario (sign in/log in):

1. User successfully signed in and confirmed identity using their gmail

Extensions:

   1a. User inputs incorrect password

     -1a1. System displays error message telling user to enter correct password

   1b. User has forgotten the password

     -1b1. User click on forget password tab and system sends verification code via user's gmail

Main success scenario (modifying profile):

1. User is able to sign out/delete account as they wish
2. User successfully uploaded images/names/bios
3. User successfully updated all information for the profile

Extensions:

   2a. File type does not match the requirement of system and upload is unsuccessful

     -2a1. System displays error message saying upload unsuccessful due to invalid file types.

User Login

Username : [   ]

Password : [   ]

[Login]

Forgot password

Title: Find facilities

Description: Users can enter names in the text-entry box and submit to get the facility information. If they do not have a place in mind, they can choose to filter facilities by rating, price, distance, number of ratings, or type (restaurant, place to study, residence). The third scenario is that users click the system picked place. If the facility cannot be found in the application, the user can submit a request to admins to add a new facility.

Primary actor: user

Preconditions: The user must input valid places when search and input valid characters

Postconditions: If a facility already exists in application, the user fetches information in one of these ways and they will get result(s) based on their choice. If not, the user will be notified if their request to add the new facility is successful or not.

Main Success Scenario (facility already exist):
1. User receive response filtered based on price
2. User receive response filtered based on types
3. User receive response filtered based on ratings
4. User receive correct response after entering a valid name in search bar
5. User choose the system picked place and get the response

Extensions:

    4a. The places that has been searched can not be found

      -4a1. System displays error message saying place can not be found

    4b. Invalid characters entered in search bar

      -4b1. System displays error message saying characters are illegal for search bar

    4c. User enters empty result in search bar

      -4c1. System displays error message saying search result must not be empty

Main success scenario (facility does not exist):
1. Enter the name and address of the new facility in the textboxes successfully
2. Press the send request button to send to admins for review and gets response within 24 hours

Extensions:

1a. Invalid address or empty address

    - 1a1. System displays error message saying address is invalid or empty

1b. Duplicated address with an existing facility

    - 1b1. System displays error message saying a facility with the same address already exists

1c. Empty facility name

    - 1b1. System displays error message saying facility name is empty

Title: Report facility/content/users

Description: Users can click on a tab named "Report" and they can choose to report either other user(s) or post(s) that are inappropriate for the app. They must give valid reasons when they make such reports and after they submit the report, the administrators will investigate each of the reported cases and send them the final decision as a real-time notification. If the report is successful, the user will receive reward points.

Primary Actor: user, admin

Pre Conditions: The report must be made of valid reasons with actual evidence showing other users are actually involved with inappropriate behaviors including offensive languages, online scams, inappropriate advertisement and anything against the law.

Post Conditions: Users will get a notification after a decision has been made by the administrators within 24 hours after they submit the request. If it is deemed that the report is invalid, administrators will ask for further information and evidence in order to process the reports.

Main success scenario:

   1, The user's report is valid and offender is blocked/restricted/removed

   2, User is able to provide administrator with further evidences of offenders

 Extensions:

   1a. Offense does exist but the user can not provide further evidence.

       -1a1. Administrator responds to user saying that further evidence needed until any action can be taken

Title: Get Help
Description: The actor requests for help if problems arise while using the app, where information on how to solve the problem is provided. The FAQ page will be displayed to see if the user can find solutions there, if not, the user can send a message to the admins.
Primary Actor: user, admin
Preconditions: The actor is a registered user, they have to go through the authentication process and click on Get Help related tabs
Postconditions: The user will either find the solution in the FAQ, or the user will receive a reply from the admin on how to solve the current problem
Main success scenario:
1. The actor presses the "Get help" button
2. The user will be navigated to the FAQ page, if they cannot find an answer there, scroll to the bottom of the page and click the button "Send questions to admin"
3. The actor enters a question and press the send button to send to admins
4. The user receives a reply from the administrators
Extensions:
3a. Empty questionnaire entry
   - 3a1. system displays error message saying that textbox is empty it must have content within, the message will not be sent to admins until a question is entered

Title: View facility information
Description: After finding a facility, the actor may view the name, address, location (google maps), and reviews of a facility.
primary actor: user
preconditions: None, anyone can view the facility information
postconditions: the information of the facility is shown on its associated page
Main success scenario:
1. User selects a facility to browse and sees the information about the facility. The location of the facility will be shown on google maps with a marker on top

Extensions:
1a. No location permission
-1a1. System prompts the user with an error message saying that the user must allow location permissions for viewing facilities on map.

Title: Rate and Review facilities

Description: The user can rate facilities out of 5 stars and comment their ideas and/or concerns. The user will get reward points for one review.

primary actor: user

precondition: The user must be a registered user. The user must rate the facility but commenting is optional.

postcondition: The user's rate gets taken into account to calculate the average rate of a facility, and the rate and comment will be shown on the facility's associated page.

Main success scenario:

1. The user opens a facility's associated page

2. Click the button "Rate and Review"

3. click 1 of the 5 stars to rate it out of 5, and enter any comments in the textbox below.

4. Click the button "Submit" to submit the review

Extensions:

3a. No ratings

3a1 -Warning message that says "Please rate the facility", the review will not be submitted until the user rates the facility out of 5 stars

Title: Manage facilities

Description: The actor can add a new facility that is not already in the application, either from self-discovery or from user request. Also, the actor can remove facilities that are closed down or are not there anymore to keep the application more organized

primary actor: admin

preconditions: The user is an admin and has administration access to the application. If adding a new facility, the facility does not already exist in the application.

postconditions: New facility is added to the application and can be found by browsing or searching, or a facility is successfully removed from the application.

Main success scenario (Adding new facilities):

1. The admin clicks the button "Add new facility"
2. Enter the name of the facility, address, and press the "Submit" button

Extensions:

2a. Empty facility name

> 2a1. -System warning that says "Empty facility name, please enter a facility name", new facility not added until name field is filled.

2b. Empty address

> 2b1. -System warning that says "Empty address, please enter an address", new facility not added until the address field is filled.

2c. Invalid address (cannot be found with google maps)

> 2c1. -System warning that says "Invalid address, please enter a valid address". New facility is not added until a valid address is entered.

2d. Existing address

> 2d1. -System warning that says "Existing address, please check if a facility already exists in the application". Facility is not added until no matching addresses exist.

Main success scenario (Removing facilities):

1. The admin clicks the button "remove facility"
2. Enter the name of the facility, address, and press the "Submit" button

Extensions:

2a. Empty facility name

> 2a1. -System warning that says "Empty facility name, please enter a facility name", facility not removed until name field is filled.

2b. Empty address

> 2b1. -System warning that says "Empty address, please enter an address", facility not removed until the address field is filled.

2c. Invalid address (cannot be found with google maps)

> 2c1. -System warning that says "Invalid address, please enter a valid address". facility is not removed until a valid address is entered.

Title: Manage and notify users

Description: The admin can choose to restrict, block, or remove an user from the application if the user is reported for unethical behavior, and the admin team decides to put a penalty on them. Users will be notified by the admin if they successfully report unethical behavior. The reported user will also receive a notification that their account is going to be restricted/blocked/removed from now on. Lastly, users will be notified by the admin when their requests to add a new facility is approved or not.

-Restrict: the user cannot comment for one week

-Block: The user cannot use the application for one week

-Remove: The user is fully removed from the application.

primary actor: admin

precondition: The actor has admin access to the application, and for the penalties, the admin team fully agrees to put a penalty on an user for various reasons such as making a sensitive comment.

postcondition: For penalties, the user will be notified and restricted/blocked/removed from the application based on the severity of their unethical behavior. For requests, the user will be notified if the requested facility is added or not.

Main success scenario (Penalties):
1. The admin reviews a report and decides to put a penalty
2. The admin clicks the button "Manage users", then clicks the button "Penalities"
3. The admin selects a user from the dropdown menu
4. The admin chooses from restrict/block/remove
5. The admin enters the reason of penalty and information about the penalty in the textbox below
6. The admin clicks the "Finished" button, and the penalty will be applied.

Extensions:

3a. No user is selected

    3a1.-Warning message that says "No receiver selected, please select an user". The notification will not be sent until a valid user is selected.

4a. None of the three options is selected

    4a1. -Warning message "Please select a penalty" will be displayed. The notification will not be sent until a a penalty type is selected

5a. No message is entered

    5a1. -Warning message "Please enter information about the penalty" will be displayed. The notification will not be sent until information is entered

Main success scenario (Requests):
1. The admin reviews a request and decides to approve or reject it
2. The admin clicks the button "Manage users", then clicks the button "Requests"
3. The admin selects a user from the dropdown menu
4. The admin chooses from approve/reject

5. If rejected, the admin enters the reason of rejection in the textbox below, if accepted, the admin enters a message indicating the facility is successfully added

6. The admin clicks the "Finished" button, and the user will be notified of the result

Extensions:

3a. No user is selected

   3a1.-Warning message that says "No receiver selected, please select an user". The notification will not be sent until a valid user is selected.

4a. None of the three options is selected

   4a1. -Warning message "Please select the result of the request" will be displayed.

5a. No message is entered

   5a1. -Warning message "Please enter information about the decided result" will be displayed. The notification will not be sent until information is entered

7. A list of non-functional requirements:

- The notification of comments should be received within 30 seconds after notifications have been sent. This is important to ensure the updates are happening in "real - time", having a long delay might mislead users into thinking that there is a bug in the system or they have not received any notifications when they are supposed to. We intend to test this by sending notifications from the administrator end as well as the user end. The tests will be done by sending notifications between users or between administrators and users. We will use a timer when we send notifications to ensure user/administrator, user/user communication are under the time limit.

- The search of facilities function should have a result(s) within 30 seconds after the search request gets submitted. This is important because it ensures the users can locate a facility they would like to go within a reasonable amount of time. We will test this functionality by logging on the user end and have a timer by our side to ensure if the search bar has been filled with valid texts, correct results will be shown or else it will prompt error messages accordingly.

- The filter option should send a response within 30 seconds once the user applies the filter they choose. This is important because filters help with users that are undetermined for which place they would like to go specifically. Hence, it must have a response in a short period such that the system guides the users and helps them make decisions based on their wishes. We will test this by logging onto the user end and apply each filter and see if the results match with the applied filter.

- All reports should be processed within 24 hours after the reports have been submitted by users. This is important because it ensures the posts of our app are subjective and comments of users are non-offensive, this also enhances the user experience as a long delay in processing complaints will disappoint the users. We will test this by creating an offensive persona and a reporter persona. We will include several situations in which the content of the report is true and the offender must be removed after. We will also test scenarios when the reports are not reliable and we respond to the reporters with a detailed notification saying they must provide valid evidence to prove the offenses are actually committed or else we can not remove/restrict/block other user(s). We will ensure the posts we used for testing all have different contents or length.

- All requests for adding new facilities should be processed within 24 hours after the requests have been submitted by users. This is important as the app must provide users with the most up to date details about all facilities on campus. We will test this by introducing user personas that send such requests to the administrators and the administrators will confirm what the content of such

requests to be true. We will include cases where the claims of the requests are not true and handle these cases accordingly.

- Users will receive points if and only if they have made positive contributions to the system including things like:
    - Get enough up votes from a post and inform administrators with several new facilities,
    - Answer other's questions with helpful and detailed responses and successfully
    - Report several inappropriate online behaviors.

Based on the number of credits a user has, a level logo (example see below) will show at the side of the user's name. This requirement is important as it encourages the users to interact with one another more, make high quality ratings and posts and set a friendly environment of the platform. We will test this by introducing several personas, including those who comply with the rules and receive the amount of credit they deserve. We will also introduce personas who try to get credits but failed to comply with the rules to ensure credits will not be granted to them.

Level logo

8. The contribution of each group member to the work done for this milestone:
We did this milestone together. Everyone contributed equally.

9.**Do any one of the members have an android device?**
We bought a Pixel3 on June 8th, and plan to sell it after this class finishes.