MEMORIAL
NETWORK

Milestone I: Requirements Document

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1. Introduction

1.1 Purpose: The purpose of of this document is to give a detailed description of the requirements for *The Memorial Network.* It will illustrate the purpose and complete declaration for the development of the system. It will also explain

1.2 Scope: *The Memorial Network* is a social networking platform that allows students from Memorial University of Newfoundland the opportunity to virtually interact with other students. It offers many features to provide students with the ability to keep connected all in one place. The System will use Node.js for programming, MongoDB for database, and GitHub to entail the correct versioning and handling of the system.

1.3 Definition: *The Memorial Network* will include key features that will be described in the report. These features will be described as follows, and mentioned henceforth as such.

User/Member - A user/member is someone who is a registered member of the network. This is only accomplished after the confirmation email has been replied to.

Guest - Any person who is visiting the website who is not a user/member. They are not registered, and their view of the system and profiles are limited.

Timeline - A Timeline in the main page for all users. It is the home page for the website. Although each user's timeline will host unique content based on their preferences, each timeline will contain similar attributes. All timelines are equipped with the user's own posts, and a lost and found feature.

Friends - A user can accept other users as friends, or send requests to become friends. Two friends can share more and see more of each other's profile.

Profile - A profile is unique to each member. A profile contains the user's profile photo, additional information about each user, a schedule, and a feed of posts where members can make posts or other members can make posts.

About me - Each user profile contains an about me section. This section contains additional information on the user.

Group - Members can create groups. Each group is simply a separate timeline for the invited members. It is a space to share posts among a certain body of users.

1.4 Reference:

1.5 Overview:

2. PART I: Functional Requirements for *The Memorial Network*

- **Feature 1:** Guests visiting *Memorial Network* will have the ability to sign up to become a member of the social network:
    a. Guest enters a set of profile information including a profile picture and then chooses a username and password
    b. The username should be the guest's Memorial University email address, and the signup process will be completed only after they reply to the confirmation email they receive from the system to their university email.

    - The user will log into the website with the correct URL. From here, the user will have the ability to create an account on *The Memorial Network* using their mun email address and a password of their choosing; a profile photo prompt will be provided during this process. Here, the user may upload a photo to use for their main profile page. Once completed, the user will receive an email to verify their account and will be required to click a link to activate it.

- **Feature 2:** Members start with having no friends, and then they can send friendship request to other members and after the request is accepted the two members will become friends in the network.

    - The user will be able to search for other members by name and send friend requests. Once the friend request is accepted, the two users will then be friends. This means that both profiles are open to the other user, as well as both users content will be displayed on their respective feeds on the main page.

- **Feature 3:** A list of suggested friends will be available for the members based on the list of their friends, their programs, their courses, etc.

    - For each user, their will be a unique list of suggested friends based on their interests (courses, program of study, other mutual friends, ect.) Each user will be able to see their suggested friends, and choose whether or not to add them as a friend to their profile.

- **Feature 4:** Each member has a timeline in which they can post content.

    - The user will be able to post content to a timeline on their profile page. When the user posts on their own wall, they are essentially adding an update which is being shared with all their friends among timelines. Members can also choose to post on other member's pages or timelines.

- **Feature 5:** Members should be able to set visibility on their published posts

    a. They should be able to set a general rule

        i. Only I can see my published posts.
        ii. Everyone (considering guests) can see my published posts.
        iii. Only my friends can see my published posts.
        iv. Only a specified list of friends can see my published posts.

    b. The audience of each post can be modified individually with the above options.

    - The user will be able to choose a general rule for who can see their posts, they can choose from the following options: Only the user can see their own published posts, Everyone (including guests) can see their posts, Only friends can see their posts, only a specified group can see my posts. This feature will be available to the user for each and every post that is entered into the system. Each selected can be modified at any time.

- **Feature 6:** Members should be able to define who can post on their timelines

    a. Only I can post on my timeline.
    b. Everyone (not including guests) can post on my timeline.
    c. Only my friends can post on my timeline

    - Similar to feature 5, each guest can select who has the ability to post on their timelines. They can select between: no one can post on their timeline except for themselves, everyone (including guests) can post on their timelines, and only friends can post on their timeline. This option will be available to each user in their profile settings.

- **Feature 7:** Members can put comments on each others' posts based on the visibility of the post.
    a. Comments can be replied at all times (The visuals should be correct, in terms of indentations).
    b. Comments can be edited at all times. A history of the previous comments should be shown to a user when they click on see previous version.

    - For each post, users will have the ability to comment on the post. From these comments, users have the option to reply to the comments at all times, as well as edit their own comments. If an edit is made, a history of the edits will be available to all users who can see the comments.

- **Feature 8:** Each member can create either a public study group or a private one.
    a. The user who creates the group becomes the group owner.
    b. The owner can invite other members to join the group.
    c. The group owner can specify if other members can invite others to the group or not.
    d. If the group is public, other users can join the group instantly.
    e. If it is private, the users can join the group only after the owner accepts the request, or by invitation from the group owner, or other members, if they are allowed to do so.
    f. In the created group, members can share course contents together.

    - The user will be able to create a group/modify group settings to make group private or public. The user will also be able to invite people to join the group. Other members will be able to search for public groups only, however private groups will not show up in searches. A user can only see the contents of a private group if they are invited by the owner. If a group is public, users can request to join the group; from which the owner can decide to accept or deny this request. Users included in a group, have the ability to share content on the group's timeline, and see which other member are in the group.

- **Feature 9:** There should be a lost and found functionality in the social network.
    a. If a user finds a lost item, they will upload a photo of it and post into the lost and found section along with a short description, and an approximate location for it so that its location can be shown on a mini map.
    b. The other users can surf through the lost and found section. If they find their lost items, they can contact the poster (If the posted is a friend, they will have access to their phone number, if not, the

available information would be the poster's email address.

  - The user will be able to upload a picture and item description to a lost and found area. This area will be accessible to all users, and will be in the side margins of each timeline for the users. Other users will be able to search lost and found with specific keywords/locations. The contact information of the poster will depend on the status of the user and the poster's friendship.

- **Feature 10:** Members have a schedule section in their profile. They should initialize it by entering the date and hours of the classes they have for a semester. After setup is complete, the member and their friends can see a calendar representing the classes and their corresponding times that the member has for that semester.

  - Members will have the ability to view, update, and share their schedule with other members who they have accepted as "friends". Each member can uniquely update their own weekly schedule by day up to the hour with their class schedules; class input in done via course name and number. This schedule will be displayed on their profile for users to see.

- **Feature 11:** Each member should have a section in their profile to upload their resume. The resume can be accessible to the member's friends after successful upload.

  - Each member will have an "about me" section in their profile, represented by a tab. Under the "about me" tab, there will be a "resume" option. Here, the member can choose to upload their current resume or view other member's resume. This option is not mandatory for users.

- **Feature 12:** There should be a poll mechanism and each member should be able to create a poll about a course. Only those friends who have the same course as the poll poster should be able to see the poll and respond to it.

  - In the margins on the right side of a member's home page, there will be a poll section. In this section, each user will have the ability to create a poll to inquire with other student about courses. Members will only be able to create polls on courses for which they are currently enrolled. Likewise, members can only vote or see polls for which they are currently registered *(which courses are in their schedule)

- **Feature 13:** There will be a relationship status feature implemented into the system.
    - On the user's timeline, they have the option to select one of their friends as a partner and update their relationship status to "in a relationship". This way, one user's profile will be a link to their partners.

3. PART II: Non-Functional Requirements for *The Memorial Network*

- **Feature 1:** The system will store all information using a MongoDB database. This database will be thread safe so that multiple users can access the social network concurrently.

- **Feature 2:** After registering the system will send a confirmation email to the user within five minutes. The system will not create the user profile under the confirmation has been verified.

- **Feature 3:** The system will display a list of suggested friends to the user based on their existing friends, programs, and courses. It will only select only profiles of users whose privacy settings allow it.

- **Feature 4:** Content, such as images, videos and text "posts" will be displayed in timeline. Timeline items will be stored in a database.

- **Feature 5:** Each post can have a privacy setting associated to it. Members will only be able to see posts that their friends allow using this setting.

- **Feature 6:** A comment box will only be displayed on a friends profile if their privacy setting allows for comments.

- **Feature 7:** Comments will be updated on a thread-reply-like basis. Comments will be stored in a database

- **Feature 8:** Creator of group becomes owner. Creator of the group automatically has more permissions, such as the ability to invite users, remove users, change privacy setting for the group, ect. Groups will be stored in database. They can have a similar structure to profiles.

- **Feature 9:** Location of item will be auto-assigned to post if possible. Lost and found will be stored in database.

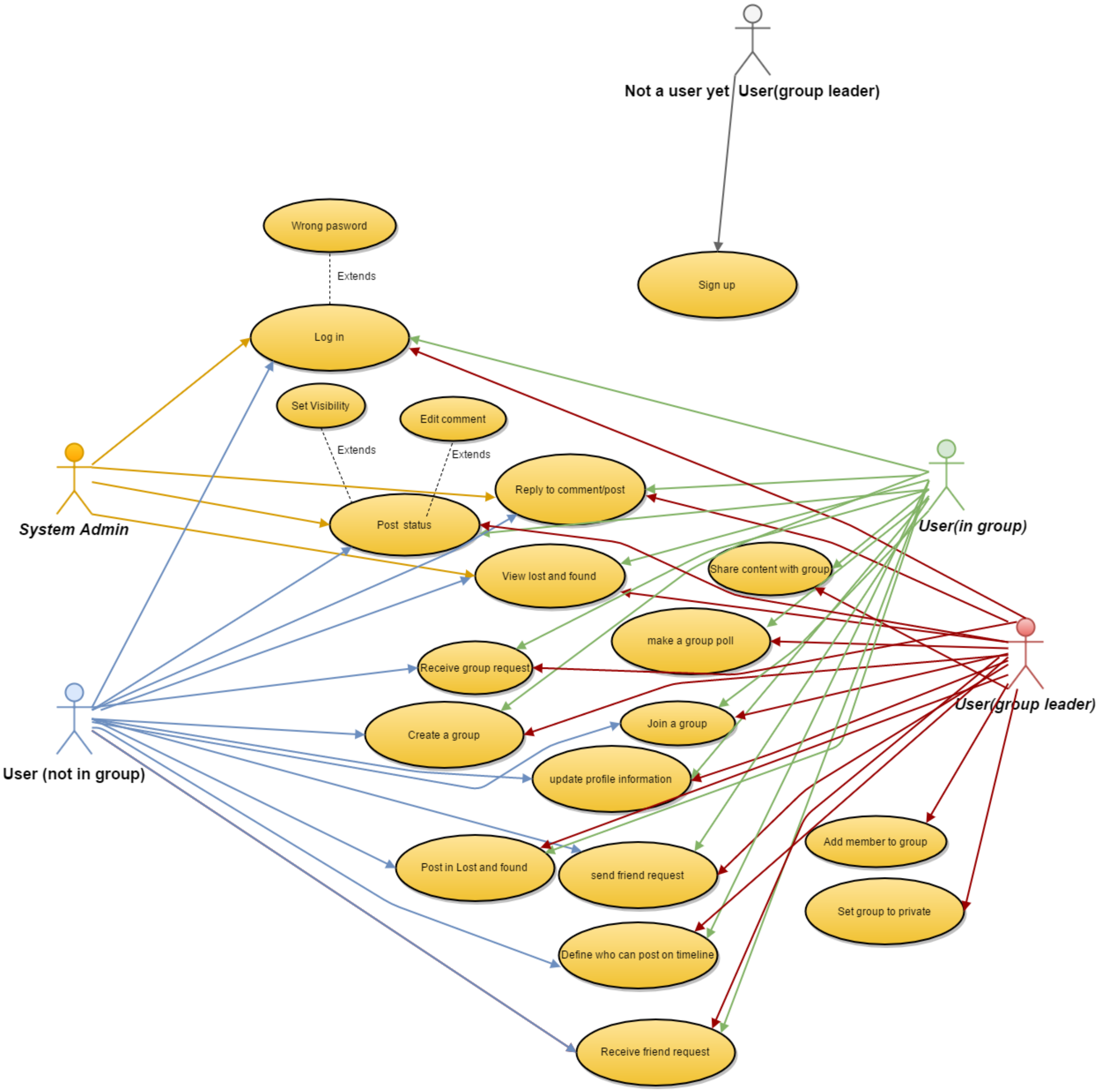
- **Feature 10:** The system will store the schedule in the database, and will represent the schedule using a table view. The schedule will be represented by months, i.e. The schedule will display a weekly schedule of the user's courses. These courses and titles will be stored as a list, as they will later be used to control the course poll feature.

- **Feature 11:** Under the "About Me" tab, mongoDB will store all of the member's information that they choose to share on their profile. The resume feature will be stored as a file (which can be uploaded or copy and pasted in a designated area) and will be represented to the user as a plain text under their "about me" tab.

- **Feature 12:** The poll feature will be based on an individual basis per member. Each member will have a unique poll view based on their current semester schedule. This information can be collected by the database from the "Schedule" feature. From each member's unique list, the system will display the corresponding polls and have a check feature whether or not a student is registered in a course before they can create a poll.

- **Feature 13:**

4. PART III: Use Case Diagram



5. PART IV: Use Case Write-Up

User posts a status

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0– Access login page
2.0– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user types status in the comment box
6.0 – The user clicks the submit button
7.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message
6a. The user clicks the set privacy button
6a1. The user selects the appropriate privacy option
6a2. The user clicks the submit button
6b. The user clicks the edit post button
6b1. The user edits the post in a comment box
6b1. The user clicks the submit button
6c. The user clicks the attach file button
6c2. The user searches through their files and selects the appropriate one
6c1. The user clicks the attach button
6c3. System verifies the file is valid
6c4. User presses the submit button

User replies to a comment

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.0– Enter login info
3.0 – The information entered is correct

4.0– Main web page is displayed
5.0– The user finds post they would like to reply to
6.0– The user clicks the reply field and types reply
7.0 – The user clicks the submit button
8.0 – the user exits the web page

Alternative flows:

3a. Information is incorrect
    3a1. Page displays error message
7a. The user clicks the attach file button
    7a2. The user searches through their files and selects the appropriate one
    7a1. The user clicks the attach button
    7a3. System verifies the file is valid
    7a4. User presses the submit button

User posts in lost and found

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:

1.0 – Access login page
2.0– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user accesses the lost and found box
6.0– The user uploads a picture of the item found
7.0– The user enters the general area it was found on a mini-map
8.0– The user comments on the post whatever information they feel is relevant
9.0– The user submits the post in the lost and found box
10.0 – The user exits the web page

Alternative flows:

3a. Information is incorrect
    3a1. Page displays error message
6a. The user attempts to upload an image that is not compatible
    6a1. Page displays error message

User adds a friend

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.0– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user accesses the suggested friends page
6.0– The user finds friend they would like to add
7.0– The user clicks the add friend button
8.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message
5a. The user searches for friend directly in search bar
5a1. The user clicks on friends profile
5a2. The user clicks on the add friend button

User makes a group

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.0– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user clicks on make group button
6.0– The user enters the group information in the specified fields
7.0– The user clicks the accept button
9.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message

User adds friend to group

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.1– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user navigates to the group page
6.0– The user clicks on the add to group button
7.0– The user selects members to add through a suggested list
9.0– The user clicks accept button when finished
10.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message
7a. The user enter the group name in the search bar above the suggested list
7a1. The user types the name of the member they would like to add
7a2. The user clicks the add to group button by the name of the person they would like to add

User joins a group

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.2– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user types the name of the desired group in the search bar
6.0– The user clicks search
7.0– The user clicks on the groups thumbnail, navigating to the group page
9.0– The user clicks on the join group button
10.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message

User posts in a group

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page
2.3– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user clicks on the groups name in the sidebar, navigating to the page
6.0– The user types a group post in the comment box
7.0 – The user clicks on the submit button
8.0 – The user exits the web page

Alternative flows:
3a. Information is incorrect
3a1. Page displays error message
5a. The user enters the groups name in the search bar
5a1. The user clicks on the groups image to navigate to their page
6a. The user clicks on the make a poll button
6a1. The user enters the information required to make the poll
7a. The user attaches a video or an image to the post/poll
7a1. The user clicks on the submit button

User updates their profile information

Primary actors: User
Website

Preconditions: Active network connection
Website is running

Basic flow of events:
1.0 – Access login page

2.4– Enter login info
3.0 – The information entered is correct
4.0– Main web page is displayed
5.0– The user clicks on the profile button to take them to their profile page
6.0– The user clicks on the update profile button in their profile
7.0– The user enters information in the available text box
8.0 – The user clicks on the submit button
9.0 – The user exits the web page

Alternative flows:

3a. Information is incorrect
  3a1. Page displays error message
5a. The user clicks on their name to navigate to their profile
8a. The user clicks on the time line privacy button
  8a1.The user selects their option from the three that appear
  8a2. The user clicks on the submit button

The user replies to a lost and found post

accept/deny friend request