



Meliora

Good Today, Better Tomorrow

CS 407 - Software Engineering Senior Project

Sprint 3 Planning Document

Team 9

Dithi Saxena (saxena52@purdue.edu)

Abhishek Gunasekar (agunase@purdue.edu)

Xavier Madera (xmadera@purdue.edu)

Vidit Shah (shah444@purdue.edu)

Garrett Lee (lee2920@purdue.edu)

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Sprint Overview

We have selected 15 user stories that aim to provide more complex functionality to the *Meliora* app. This will include allowing users to sort and filter posts on their homepage, see trending posts, keep track of EQ (Emotional Quotient) points, have a shareable profile, and upload images with posts. Our goal as a team is to finish all backlog items of this app which we created at the beginning of this project. We also aim to improve some current features of the app, such as improving our search bar with suggestions. Lastly, we plan to have our app finished in a state that we could deploy it in the future or continue where we left off from after this semester is complete if some team members would be interested in taking this app to the market.

Scrum Master: Dithi Saxena

Meeting Schedule: Monday/Tuesday/Wednesday | 8 PM EST | Zoom

Additional meetings as necessary

Risks and Challenges:

While we have a well-planned sprint with clear objectives, we are expecting some challenges since this is our last sprint. Many team members will have to work on different areas of the project they did not work on in the first two sprints because of the more advanced features included in this sprint. These team members might face some challenges getting used to working in these different environments. Therefore, it is of utmost importance in this sprint that we communicate well within our group and seek out help from team members when needed, while also checking on each others' progress.

Current Sprint Detail

User Story #1 - 2.7, 7.1

As a user, I would like to view my recent notifications on the navigation bar.

#	Description	Estimated Time	Owner
1	Implement UI to allow user to view recent notification	4 hrs	Vidit
2	Create Notification Model in Database	4 hrs	Xavier
3	Create Backend Route to retrieve a user's notifications	4 hrs	Xavier
4	Update backend routes to notify a user based on certain actions taken within the app	7 hrs	Xavier
5	Write Unit Tests for Notifications	4 hrs	Xavier
Total Hours		23 hrs	

Acceptance criteria

- Given that the UI is implemented, the user should be able to properly see a list of all the recent notifications upon clicking on the notifications button.
- Given an event happens that the user wants to know about, when the backend is called for these actions, then notifications will be created and added to a user's notification inbox.
- Given various unit test inputs, when we run the unit tests for the notification functionality, then they should all pass.

User Story #2 - 3.4

As a user, I would like to see a trending posts section that displays the most popular posts of the week based on the total number of reactions (reactions defined in 4.1).

#	Description	Estimated Time	Owner
1	Build UI to view a list of common and popular posts among the users of the app.	5 hr	Vidit
2	Build a backend API to return the most popular posts among users.	5 hr	Vidit
3	Debug and Test backend functionality	1 hr	Vidit
Total Hours		11 hrs	

Acceptance criteria

- Given that the UI is built, the users should be able to see the list of most common and popular posts among the users of the app along with a little background image.
- Given that the backend API is built and working, it should return the list of posts and their pictures appropriately according to a particular metric to sort posts by popularity.
- Given that the backend API is set up, it should be thoroughly tested for robustness and efficiency.

User Story #3 - 3.8

As a user, I would like to see a favorite categories section that displays the posts within the categories that I follow.

#	Description	Estimated Time	Owner
1	Design UI for favorite categories section	3 hrs	Abhishek
2	Build UI for displaying posts within favorite categories	6 hrs	Abhishek
3	Create Backend Route to retrieve posts by category	4 hrs	Vidit
4	Retrieve posts from the backend route	3 hrs	Abhishek
5	Update UI based on the retrieved information	3 hrs	Abhishek
6	Debug and Test	1 hr	Abhishek
Total Hours		20 hrs	

Acceptance criteria

- Given the user visits the homepage, when they click the posts by categories button, then the favorite categories section should be displayed.
- Given the user does not follow any categories, when they visit the favorite categories section, then no posts should be displayed.
- Given the user follows at least one category, when they visit the favorite categories section, then the posts from the respective number of categories should be accurately displayed.
- Given the user unfollows one category, when they visit the favorite categories section, then the number of posts displayed should be decremented.
- Given the user follows an additional category, when they visit the favorite categories section, then the number of posts displayed should be incremented.

User Story #4 - 3.9

As a user, I would like to be able to show/hide the details of a post like comments, reactions, etc.

#	Description	Estimated Time	Owner
1	Design model to show/hide comments, reactions, etc.	4 hr	Dithi
2	Build UI to show/hide comments, reactions, etc.	3 hr	Dithi
3	Debug and test	1 hr	Dithi
Total Hours		8 hrs	

Acceptance criteria

- Given the user is on the homepage of the *Meliora* app when they are logged in, then the user should be able to hide their post details such as comments, reactions, etc.
- Given the user is on the homepage of *Meliora* app when they are logged in, then the user should be able to show their post details such as comments, reactions, etc.
- Given various unit test inputs, when we run the unit tests for the show/hide functionality, then they should all pass.

User Story #5 - 3.10

As a user, I would like to be able to sort posts in the home page or in a category by number of likes or number of comments.

#	Description	Estimated Time	Owner
1	Design model allow user to sort posts	4 hrs	Dithi
2	Build UI to allow user to sort posts	3 hrs	Dithi
3	Save sort preference and get data from backend	4 hrs	Garrett
4	Update UI to sort post based on user's selection	4 hrs	Garrett
5	Debug and test	1 hr	Dithi
Total Hours		16 hrs	

Acceptance criteria

- Given the user is on the homepage of the *Meliora* app when they are logged in, then the user should be able to click the sort dropdown on top of their feed.
- Given the user is on the homepage of the *Meliora* app when they are logged in, then the user should be able to choose how they want to sort their post (number of likes or number of comments)
- Given the user is on the homepage of the *Meliora* app when they are logged in, when they choose a sort option, the feed should be dynamically updated to reflect this new sort.

User Story #6 - 4.10

As a user, I would like to create a category that is relevant to my post if one does not exist already.

#	Description	Estimated Time	Owner
1	Update homepage to allow creating a category	2 hrs	Abhishek
2	Develop UI for create category page	5 hrs	Abhishek
3	Create backend route to update list of categories	4 hrs	Vidit
4	Update post card UI to include newly created categories	3 hrs	Abhishek
5	Create a new category intro page	4 hrs	Abhishek
6	Debug and Test	1 hr	Abhishek
Total Hours		19 hrs	

Acceptance criteria

- Given the user visits the homepage, when they click the create category button, then the create category page should be displayed.
- Given the user visits the create category page, when they enter the required description and click submit, then the number of categories in the database should be updated.
- Given the user creates a new category, when they visit the homepage, then the new category should be displayed.
- Given the user does not create a new category, when they visit the homepage, then the categories list should retain its previous state.
- Given the user creates a new category, when they visit the create posts page, then the new category should appear in the categories dropdown.

User Story #7 - 8.5

As a user, I would like to be able to change my notification preferences and settings.

#	Description	Estimated Time	Owner
1	Design model to allow user to change notification preferences	4 hrs	Dithi
2	Build UI to change notification preferences	3 hrs	Dithi
3	Create backend route to save notification preferences	3 hrs	Xavier
4	Update UI to reflect new notification preferences	4 hrs	Garrett
5	Debug and test	1 hr	Dithi
Total Hours		15 hrs	

Acceptance criteria

- Given the user is on the settings page of the *Meliora* app when they are logged in, then the user should see a section to change their notifications settings.
- Given the user is on the settings page of the *Meliora* app when they are logged in, then the user should be able to change their notification preferences to: no notifications, notifications for posts I like, notifications for all posts, etc.
- Given the user is on the settings page of the *Meliora* app when they are logged in, then the user should see only notifications based on their preference selected.

User Story #8 - 3.11

As a user, I would like to be able to filter posts based on their location (if time allows).

#	Description	Estimated Time	Owner
1	Develop Filter by Location UI in the homepage	2 hrs	Abhishek
2	Create backend route to retrieve posts by location	5 hrs	Vidit
3	Retrieve posts by location from the backend route	3 hrs	Abhishek
4	Display posts by location in the homepage	3 hrs	Abhishek
5	Debug and test	1 hr	Abhishek
Total Hours		14 hrs	

Acceptance criteria

- Given the user visits the homepage, when they click the filter dropdown, then the filter by location option should be displayed.
- Given the user visits the homepage, when they click the filter by location option, then the posts from the same location (i.e. the same latitude and longitude) will be displayed in the homepage.
- Given the user visits the homepage, when they do not click the filter by location option, then the previous set of posts will be displayed in the homepage.
- Given the user clicks the filters by location option, when none of the posts match the current user's location, then an alert should be thrown in the browser.
- Given the user clicks the filters by location option, when none of the posts match the current user's location, then the previous set of posts will be displayed in the homepage.

User Story #9 - 4.6

As a user, I would like to be able to make drafts for my posts (if time allows).

#	Description	Estimated Time	Owner
1	Implement UI to save a post as a draft	4 hrs	Dithi
2	Implement backend to save draft posts	4 hrs	Garrett
3	Update frontend to show a user's drafts	4 hrs	Garrett
4	Debug and test	1 hr	Garrett
Total Hours		13 hrs	

Acceptance criteria

- Given a user is creating a post, when they click save draft, the post will be saved in the database.
- Given a user has created a draft, when viewing the create a post page, the option to view drafts should be available.
- Given a user has created a draft, when the user opens the draft, the drafted post's content should be displayed.

User Story #10 - 4.11

As a user, I would like to share a post on social media applications (if time persists).

#	Description	Estimated Time	Owner
1	Implement UI to share a post on another social media platform	3 hrs	Garrett
2	Use API to share post	5 hrs	Garrett
3	Debug and test	1 hr	Garrett
Total Hours		9 hrs	

Acceptance criteria

- Given a user is viewing a post, when clicking the share icon, they should have the option to share to a particular social media platform
- Given a user is sharing a post, when choosing a platform to share to, then they should be taken to that platform and given the option to post.
- Given a post is shared on another platform, when clicking the link, the user should be taken to the Meliora app and see the shared post

User Story #11 - 6.5

As a user, I would like to share my profile online by generating a public url in the profile page.

#	Description	Estimated Time	Owner
1	Design model to generate URL for profile page	4 hrs	Dithi
2	Build UI to generate URL for profile page	3 hrs	Dithi
3	Create backend route to save and generate URL	4 hrs	Xavier
4	Update UI to return generated URL for profile page	3 hrs	Garrett
5	Debug and test	1 hr	Dithi
Total Hours		15 hrs	

Acceptance criteria

- Given the user is on the profile page when logged in on the *Meliora* app, then the user should see a “Generate URL” button.
- Given a user wants to share their profile elsewhere, when they click the generate button on their profile, then they should be provided a unique URL to share their meliora page with.
- Given several unit test inputs, when we run the tests for the URL functionality, then they should all pass.

User Story #12 - 4.14

As a user, I would like to upload an image with my post (if time allows).

#	Description	Estimated Time	Owner
1	Implement UI to allow user to upload image on a post	3 hrs	Vidit
2	Update UI to show images attached to posts	4 hrs	Vidit
3	Implement functionality on the browser to send the image to firebase	3 hrs	Xavier
4	Implement functionality on the browser to download the image to show on the posts	3 hrs	Xavier
Total Hours		13 hrs	

Acceptance criteria

- Given a user is making a new post, when they click the image button, then the file picker on the user's OS should be triggered
- Given a user is in their file picker, when they select an image, then the file should be uploaded to firebase
- Given a user is viewing a post with an image attached, when the post loads in the browser, then the browser should have retrieved the image from firebase and display it onto the screen.

User Story #13 - Additional

As a user, I would like to see suggestions for users and/or categories in the search bar

#	Description	Estimated Time	Owner
1	Update search bar UI to have suggestion capabilities	2 hrs	Garrett
2	Create a search endpoint in the backend to query input with regex in mongoDB	3 hrs	Garrett
3	Update UI in front end to display the search suggestions for autocompletion	2 hrs	Garrett
4	Test and Debug	1 hr	Garrett
Total Hours		8 hrs	

Acceptance criteria

- Given a user is logged in, when typing input into the search bar, then suggestions should be displayed
- Given a user has a partial input in the search bar, when clicking a suggestion, the search bar should autocomplete with the chosen selection
- Given a user has completed a selection, when clicking search, the user should be taken to the category or profile selected

User Story #14 - Additional

As a user, I would like to be able to un-bookmark a post that I have already bookmarked previously.

#	Description	Estimated Time	Owner
1	Add Toggle in UI to Remove a bookmark from one's bookmarked post page	3 hr	Xavier
2	Update backend endpoint to save a bookmark so that it can remove a bookmark too	3 hr	Xavier
3	Test out new functionality	1 hr	Xavier
Total Hours		7 hrs	

Acceptance criteria

- Given a user has bookmarked a post, when they decide they no longer want to have it bookmarked, then they can click a button to remove the bookmark.
- Given a user has pressed the button to unbookmark a post, when they go to look at their bookmarks again, then the post should no longer be there.
- Given several unit test inputs, when we run the tests on the bookmark functionality, then they should all pass.

User Story #15 - Additional

As a user, I would like to gain EQ (Emotional Quotient) points when I interact with the *Meliora* app (when I create a post, react to posts, comment to posts, etc.).

#	Description	Estimated Time	Owner
1	Implement UI for user to see total EQ points on their profile page	3 hrs	Dithi
2	Add to various endpoints the functionality to update users' EQ point totals.	3 hrs	Xavier
3	Calculate EQ points for user's interaction and update UI	4 hrs	Vidit
4	Debug and test	1 hr	Dithi
Total Hours		11 hrs	

Acceptance criteria

- Given the user is on their profile page when logged in on the *Meliora* app, then they should see the total number of EQ points.
- Given the user is on their profile page when logged in on the *Meliora* app, then they should see their EQ points increase by 5 when they create a post.
- Given the user is on their profile page when logged in on the *Meliora* app, then they should see their EQ points increase by 3 when they comment on a post.
- Given the user is on their profile page when logged in on the *Meliora* app, then they should see their EQ points increase by 1 when they react to a post.

Individual Team Member Hour Totals

Team Member	Total Hours
Dithi Saxena	40 hrs
Xavier Madera	40 hrs
Abhishek Gunasekar	40 hrs
Garrett Lee	40 hrs
Vidit Shah	40 hrs

Remaining Backlog

Functional Requirements	
ID	User Story
1 - Account Registration	
1.1	As a user, I would like to be able to create an account with Meliora so that I can access all its features.
1.2	As a user, I would like to reset the password to my account so that I can always have access to Meliora and its features.
1.3	As an admin, I would like to display an error message if at least one of the user's credentials already exists in the database when creating an account.
1.4	As an admin, I would like to ensure that only users that are successfully signed up and logged in can access the features of Meliora.
1.5	As an admin, I would like to display an error message if at least one of the user's credentials are incorrect.
1.6	As a user, I would like to login to my account using my username/email and password.
1.7	As a user, I would like to receive an email reminder if I have not posted anything within a week of signing up (if time allows).
2 - Navigation Bar	
2.1	As a user, I would like to see a navbar containing links on each webpage of the application.
2.2	As a user, I would like to view a sign up and login button in the landing page.
2.3	As a user, I would like to view a log out button on every page except the landing page.
2.4	As a user, I would like to view my profile and profile settings from the header.

2.5	As a user, I would like to have an option of creating a new post from the header. VS / XM
2.6	As a user, I would like to see the logo of the app on the header, clicking on which leads me back to the home page.
2.7	As a user, I would like to have an option of viewing my recent notifications on the header.
3 - Home Page	
3.1	As a user, I would like to view the landing page to understand more about the features of Meliora. - A.G.
3.2	As a user, I would like to see a motivational quote whenever I access the app.
3.3	As a user, I would like to see a list of dynamic categories that describe the common mental health topics (relationships, grief, stress, etc) tagged by users in their posts as stated in user story 4.9.
3.4	As a user, I would like to see a trending posts section that displays the most popular posts of the week based on the total number of reactions (reactions defined in 4.1).
3.5	As a user, I would like to follow/unfollow other user profiles in Meliora through their profile or the homepage.
3.6	As a user, I would like to follow/unfollow multiple categories through the homepage.
3.7	As a user, I would like to see a “from people you follow” section that displays the posts made by people that I follow.
3.8	As a user, I would like to see a favorite categories section that displays the posts within the categories that I follow.
3.9	As a user, I would like to be able to show/hide the details of a post like comments, reactions, etc.
3.10	As a user, I would like to be able to sort posts in the home page or in a category by number of likes or number of comments.
3.11	As a user, I would like to be able to filter posts based on their location (if time allows).

4 - Posts	
4.1	As a user, I would like to react to other people's posts with positive emojis (hearts, smiley faces, thumbs up, etc.).
4.2	As a user, I would like to be able to leave comments on others' posts.
4.3	As a user, I would like to be able to restrict my post to where other users cannot post comments on it.
4.4	As a user, I would like to be able to post anonymously.
4.5	As a user, I would like to be able to delete my posts.
4.6	As a user, I would like to be able to make drafts for my posts (if time allows).
4.7	As a user, I would like to record my location in my post (if time allows).
4.8	As a user, I would like to bookmark posts that I would like to view at a later time.
4.9	As a user, I would like to tag each post with an existing category.
4.10	As a user, I would like to create a category that is relevant to my post if one does not exist already.
4.11	As a user, I would like to share posts on social media applications (if time persists).
4.12	As a user, I would like to be able to see my word count while writing my posts.
4.13	As a user, I would like to be able to hide my posts from the public eye, to where only I can see them.
4.14	As a user, I would like to upload an image with my post (if time allows).
5 - Mental Health Resources	

5.1	As a user, I would like to quickly access helpline information (such as suicide, ptsd, etc.) through the mental health resources page.
6 - Profile	
6.1	As a user, I would like to easily access an editable profile page.
6.2	As a user, I would like to describe a short bio about myself in the profile page.
6.3	As a user, I would like to know the number of posts that I have made in total.
6.4	As a user, I would like to view the total number of reactions that my posts have received.
6.5	As a user, I would like to share my profile online by generating a public url in the profile page.
6.6	As a user, I would like to view another user's profile with their public information.
6.7	As a user, I would like to be able to see my bookmarked posts.
6.8	As a user, I would like to upload a profile picture for others to see (if time persists).
7 - Notifications	
7.1	As a user, I would like to see all of my recent notifications in the navigation bar.
8 - Settings	
8.1	As a user, I would like to change my password once logged in.
8.2	As a user, I would like the option to sign out of my account.
8.3	As a user, I would like to view the web app in dark mode.
8.4	As a user, I would like to be able to delete my account.

8.5	As a user, I would like to be able to change my notification preferences and settings.
8.6	As a user, I would like the option to block or unblock another user.
8.7	As a user, I would like to have the option to make my profile private or public.
9 - Maintenance	
9.1	As a user, I would like to be able to flag harmful/vulgar/offensive posts.
9.2	As an admin, I would like a special backdoor to the app for various maintenance.
9.3	As an admin, I would like to be able to see posts that have multiple flags in order to review them.
9.4	As an admin, I would like to be able to decide whether multi-flagged posts belong on our app and handle them as such.
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