



Sprint 1 Planning Document

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Sprint Overview

During this sprint we want to get a base system up and running so that we can build off of it in following sprints, adding features as we go. For our project, that entails setting up the base infrastructure like an API, the databases the API will interact with, and frontend applications that will make requests to the API. Our goal for this sprint is not to have a full feature application but to have all the necessary components in place to work toward being feature complete.

Scrum Master: Ryan Gamble

Meeting Plan: Tuesday/Sunday @ 10:30pm

Risks and Challenges:

We will need to coordinate work so that people are not blocked by other tasks. For example people cannot add endpoints to the API before a barebones API is created so we will need to take care of these base tasks quickly. We're all learning new technologies so it will take some time to learn how to get started on certain tasks. We will need to decide as a group what hashing algorithm to use. There is some risk that our original design plan doesn't work as expected with the technologies we've chosen. There is some risk that we do not complete all of the tasks we have planned since we are not familiar with the technologies being used.

Current Sprint Detail

User Story #1

As a developer, I need a running database for data to be stored in

#	Description	Estimated Time	Owner
1	Create a MongoDB account, invite everybody to a team, and make a production and testing database	1.5 Hours	Brian

Acceptance Criteria:

- Given that we have setup a production MongoDB instance correctly, we all have access to it
- Given that we have setup a testing MongoDB instance correctly, we all have access to it
- Given that we have created a production MongoDB instance correctly, we can make a sample request to see how the database responds
- Given that we have created a testing MongoDB instance correctly, we can make a sample request to see how the database responds

User Story #2

As a developer, I need to have a way to store users' photos and videos

#	Description	Estimated Time	Owner
1	Create an AWS account, invite everybody to a team, and create an S3 instance	3 Hours	Brian

Acceptance Criteria:

- Given that we have setup an AWS account, all team members have access to it
- Given that we have setup an AWS account, we have S3 instance
- Given that we have setup an AWS account, we're able to upload a photo to the S3 instance

User Story #3

As a developer, I need a performant database schema so that requests are quick

#	Description	Estimated Time	Owner
1	Translate our front end class structure into a json table format for storing in MongoDB	3 Hours	Ryan

Acceptance Criteria:

- Given we have designed a database schema, we have detailed documentation for how the data will be stored
- Given we have designed a database schema, we have some examples of data following that schema
- Given we have designed a database schema, any data we want to retrieve should be retrievable with only one level of redirection

User Story #4

As a developer, I need a running RESTful API to service requests from the front end

#	Description	Estimated Time	Owner
1	Setup the barebones class structure of the API including an interface with MongoDB	10 Hours	Brian
2	Setup a postman account and add all the team members to a group	1 Hour	Brian

Acceptance Criteria:

- Given we have setup a RESTful API in Node, our API can communicate with the database
- Given we have setup a RESTful API in Node, we have a basic endpoint that we can use to verify the front end can make requests to the API
- Given we have setup a RESTful API in Node, we have a class structure for running unit tests
- Given we have setup a RESTful API in Node, we can all access the postman interface

User Story #5

As a developer, I need a barebones web application

#	Description	Estimated Time	Owner
1	Setup the barebones class structure of the web app including an interface with the API	8 Hours	Ryan
2	Make basic landing page with placeholder buttons for the web app	4 Hours	Adil

Acceptance Criteria:

- Given we have setup the web application, we can access the homepage upon launching the app
- Given we have setup the web application, we have an API interface class where we can put future request wrapper functions
- Given we have setup the web application, we have a class structure that will hold all of our user data for the frontend

User Story #6

As a developer, I need a barebones mobile application

#	Description	Estimated Time	Owner
1	Setup the barebones class structure of the mobile app including an interface with the API	8 Hours	Nathan
2	Make basic homepage page with placeholder buttons for the mobile app	4 Hours	Nathan

Acceptance Criteria:

- Given we have setup the mobile application, we can access the homepage upon launching the app
- Given we have setup the mobile application, we have an API interface class where we can put future request wrapper functions
- Given we have setup the web application, we have a class structure that will hold all of our user data for the frontend

User Story #7

As a developer, I need API endpoints to service the frontend

#	Description	Estimated Time	Owner
1	Make an add user endpoint including minimal unit tests	3.5 Hours	Ryan
2	Make a login endpoint including minimal unit tests	3.5 Hours	Justin
3	Make an endpoint to get photos including minimal unit tests	3.5 Hours	Justin
4	Make an endpoint for uploading pictures including minimal unit tests	4.5 Hours	Ryan
5	Make an endpoint for deleting pictures including minimal unit tests	4.5 Hours	Ryan
6	Make an endpoint for editing a user entry including minimal unit tests	5.5 Hours	Brian
7	Make an endpoint for creating a new post including minimal unit tests	4.5 Hours	Izzy
8	Make an endpoint for retrieving posts including minimal unit tests	3.5 Hours	Ryan
9	Make an endpoint for deleting posts including minimal unit tests	3.5 Hours	Justin

Acceptance Criteria:

- Given we have a suite of endpoints, when a valid request is made to an endpoint, an HTTP success code should be returned
- Given we have a suite of endpoints, when an invalid request is made to an endpoint, an HTTP error code should be returned
- Given we have a suite of endpoints, when a valid request is made to an endpoint, appropriate data should be returned in the response object
- Given we have a suite of endpoints, when a valid request is made to an endpoint, appropriate database changes should be made

User Story #8

As a user, I need to be able to register an account

#	Description	Estimated Time	Owner
1	Make a registration page for the web app with password hashing and error/success handling	8.5 Hours	Adil
2	Make a registration page for the mobile app with password hashing and error/success handling	8.5 Hours	Nathan

Acceptance Criteria:

- Given we have a register account page, when a user attempts to register an account, a request is made to the add user endpoint
- Given we have a register account page, when a user successfully registers an account, they are redirected to the home page
- Given we have a register account page, when a user fails to register an account, an error message is displayed

User Story #9

As a user, I need to be able to login to my account

#	Description	Time Estimate	Owner
1	Make a login page for the web app with password hashing and error/success handling	7 Hours	Adil
2	Make a login page for the mobile app with password hashing and error/success handling	7 Hours	Nathan

Acceptance Criteria:

- Given we have a login page, when a user attempts to login to an account, a request is made to the login endpoint
- Given we have a login page, when a user successfully logs into an account, they are redirected to the home page
- Given we have a login page, when a user fails to log into an account, an error message is displayed

User Story #10

As a user, I need to be able to view my profile

#	Description	Estimated Time	Owner
1	Create a profile page on the mobile app populated with user data	4 hours	Brian
2	Get the user's profile picture from S3 on the mobile app	2 hours	Ryan
3	Create a link from the homepage to the profile page on the mobile app	.5 Hours	Brian
4	Create a link from the profile page back to the homepage on the mobile app	.5 Hours	Brian
5	Create a profile page on the web app populated with user data	4 hours	Adil
6	Get the user's profile picture from S3 on the web app	2 Hour	Adil
7	Create a link from the homepage to the profile page on the web app	.5 Hours	Adil
8	Create a link from the profile page back to the homepage on the web app	.5 Hours	Adil

Acceptance Criteria:

- Given we have setup the profile page, we should be able to reach the profile page from the homepage
- Given we have setup the profile page, we should be able to see user details on the profile page
- Given we have setup the profile page, we should be able to reach the homepage from the profile page

User Story #11

As a user, I need to be able to edit my profile

#	Description	Time Estimate	Owner
1	Add the ability to edit fields of the profile with error and success handling on the web app	6 Hours	Adil
2	Add the ability to edit fields of the profile with error and success handling on the mobile app	6 Hours	Brian

Acceptance Criteria:

- Given that we have a profile page, we should be able to hit an edit button and see editable fields
- Given that we have a profile page, we should be able to submit changed fields and see them get updated
- Given that we have a profile page, if we upload a new profile picture the old one should get deleted

User Story #12

As a user, I need to be able to post that I am looking to go on a trip to a location

#	Description	Estimated Time	Owner
1	Add the ability to create posts from the homepage on the web app	6 Hour	Izzy
2	Add the ability to create posts from the homepage on the mobile app	6 Hours	Izzy

Acceptance Criteria:

- Given that we have added a create post button to the homepage, we should be able to get redirected to a post creation page when we click it
- Given that we have implemented the post creation page, submitting the form should create a new entry in the database.
- Given that we have implemented the post creation action, we should be redirected to the homepage after submitting the form

User Story #13

As a user, I need to be able to view others' posts

#	Description	Estimated Time	Owner
1	Add a scroll view to the mobile app's homepage to display posts	4 Hours	Nathan
2	Add a scroll view to the web app's homepage to display posts	4 Hours	Justin

Acceptance Criteria:

- Given that we have correctly implemented an endpoint for retrieving posts on the backend, we should make a request to the database and get the data in the mobile app
- Given that the app has a scrollview, we should be able to view posts that have been retrieved from the database
- Given that we have tested the app's scrollview, we should have no visual defects in the user interface for viewing posts

User Story #14

I need to be able to edit the posts that I make on a mobile app

#	Description	Time Estimate	Owner
1	Add an edit button to a user's posts and let the user edit the post when it is clicked on the mobile app	4 Hours	Izzy
2	Add a save button that saves changes made on the mobile app	4 Hours	Izzy
3	Add an edit button to a user's posts and let the user edit the post when it is clicked on the web app	4 Hours	Izzy
4	Add a save button that saves changes made on the web app	4 Hours	Izzy

Acceptance Criteria:

- Given that we have implemented the post edit page correctly, submitting the edits should update the entry in the database.
- Given that we have implemented the save changes button correctly, the post should be updated with changed fields
- Given that we have implemented the edit post button correctly, the post should have fields that are able to be edited

User Story #15

I need to be able to delete my own posts

#	Description	Estimated Time	Owner
1	Add a delete button for the user's posts that deletes that post and ensure error/success is handled on the mobile app	6 Hours	Brian
2	Add a delete button for the user's posts that deletes that post and ensure error/success is handled on the web app	6 Hours	Adil

Acceptance Criteria:

- Given we can delete posts, when the delete button is clicked, a request is made to the delete post endpoint
- Given we can delete posts, when a delete request is successful, the post is removed from the interface
- Given we can delete posts, when a delete request fails, an error message is displayed

User Story #16

I need to be able to sign out of my account

#	Description	Estimated Time	Owner
1	Add a sign out button to the mobile app that deletes the user's session data on the mobile app	2 Hours	Justin
2	Add a sign out button to the web app that deletes the user's session data from the browser on the web app	2 Hours	Justin

Acceptance Criteria:

- Given that the sign out button has been added correctly, signing out will redirect the user to the login page
- Given that the sign out button has been added correctly, signing out clears the user's cached data
- Given that the sign out button has been added correctly, the user should no longer be able to access any functionality in the app without first signing back in

User Story #17

I need to be able to change my password

#	Description	Estimated Time	Owner
1	Add a change password button and editable fields on the edit profile page on the web app	2 Hour	Justin
2	Verify the old password and hash the new one when a change is submitted on the web app	5 Hours	Justin
3	Add a change password button and editable fields on the edit profile page on the mobile app	2 Hour	Justin
4	Verify the old password and hash the new one when a change is submitted on the mobile app	5 Hours	Justin

Acceptance Criteria:

- Given that the change password button has been added, editable fields should be presented to the user
- Given that the password gets hashed correctly, the data transmitted to the server should be encrypted
- Given that the application makes a valid request to update the password, we should see the value change in the database

Remaining Backlog

Functional

1. User Account

As a user,

- ~~a. I need to be able to register an account~~
- ~~b. I need to be able to log into my account~~
- ~~c. I need to be able to view my profile~~
- ~~d. I need to be able to sign out of my account~~
- e. I need to be able to reset my password
- ~~f. I need to be able to change my password~~
- g. I need to be able to change the email address associated with my account
- ~~h. I need to be able to edit my profile~~
- i. I would like to be able to login using third party authenticators like Google
- j. I would like to connect social media accounts to the profile
- k. I need to be able to verify my profile

2. System Features

As a user,

- a. I would like to be able to block an unwanted user from viewing my profile
- b. I would like to be able to report a user for inappropriate behavior
- c. I would like to get emails about special offers
- d. I would like to get reminders to my personal email
- e. I would like to get reminders to my personal phone number
- f. I need to be able to interact with the homepage

3. Posts

As a User,

- ~~a. I need to be able to post that I am looking to go on a trip to a location~~
- ~~b. I need to be able to view others' posts~~
- ~~c. I need to be able to edit the posts that I make~~
- ~~d. I need to be able to delete my own posts~~

4. Trips

As a user,

- a. I need to be able to create trips
- b. As a user, I need to be able to join trips

- c. I need to be able to set an upper limit to the number of people in a group
- d. I need to be able to add specific people to a group
- e. I need to be able to remove people from a group
- f. I need to be able to prevent more people from joining a group
- g. I need to be able to mute notifications from a specific group
- h. I would like to be able to see the total amount and my share of group costs
- i. I would like to be able to search for trips with filters for location and planned budget
- j. I would like to be able to have the trip budget broken down into categories
- k. I would like to get a trip summary with highlights of the trip
- l. I would like to share a trip summary on social media

5. Messaging

As a user,

- a. I need to be able to send private messages
- b. I need to be able to send group messages

6. Multimedia Handling

As a user,

- a. I would like to be able to share photos/videos with my group
- b. I would like to be able to share particular photos/videos on social media
- c. I would like to be able to download uploaded photos

7. Meeting up with Users

As a user,

- a. I need to be able to share my location
- b. I would like to be able to see people in my area that I can meet up with
- c. I would like to be able to quickly get emergency contact information for local authorities
- d. I would like to have suggestions for safe meeting spots

8. Premium Users

As a premium user,

- a. I would like to be able to upload more photos than a standard user
- b. I would like to be able to control who sees me when searching
- c. I would like to be able to change the theme of the chat

9. Admin Features

As an admin,

- a. I need to be able to edit any user's posts
- b. I need to be able to delete any user's posts
- c. I need to be able to ban any user
- d. I need to be able to see user's posts

10. Core Infrastructure

As a developer,

- ~~a. I need a running database for data to be stored in~~
- ~~b. I need a performant database schema so that requests are quick~~
- ~~c. I need a barebones web application~~
- ~~d. I need a barebones mobile application~~
- ~~e. I need a running RESTful API to service requests from the front end~~
- ~~f. I need API endpoints to service the frontend~~
- g. I need the API to have any endpoints required for server requests
- h. I need to be able to create an auto profile and post moderation bot
- i. I need to be able to create an admin account
- ~~j. I need to have a way to store users' photos and videos~~

Non-Functional

1. Performance
 - a. I would like the application to run smoothly without crashing or lagging
 - b. I would like backend requests to be serviced in less than 1 second
 - c. I would like the backend to be able to handle at least 1000 concurrent requests
 - d. I would like the automated moderation bot to verify images and text in less than 3 seconds
2. Frontend Applications
 - a. I would like a web application built in ReactJS
 - b. I would like Android and iOS applications built from Flutter
3. Backend API
 - a. I would like an API built in NodeJS that follows RESTful principles
4. Database
 - a. I would like to be able to store user data in a MongoDB database
5. Security
 - a. I would like the API to restrict users from accessing data they don't have the right to access
 - b. I would like the database to be encrypted
 - c. I would like a compromised frontend application to not be able to expose user data
 - d. (If time allows) I would like the API to use tokens for user authentication
 - e. (If time allows) I would like the API to use HTTPS for all requests
6. Usability
 - a. I would like the application to be easy to understand/easy to find what you're looking for
 - b. I would like menus to not be overly nested
7. Appearance
 - a. I would like a clean aesthetically pleasing design that is attractive to young adults