Team 12 - CS 307 Sprint 2 Overview

Project Name: Capsule

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Sprint Overview

Our goal during this sprint is to implement some of the more complex functionality of the project. This will include finding the photos and songs that will be used as the recap of the month. We wanted to do this during sprint 2 to leave time in the future if we learn more about the capabilities of Google Vision API and find ways to more accurately choose quality photos. At the conclusion of this sprint, capsules will be automatically generated so that they can then be viewed and shared to the storyboard. When this is completed, future user stories revolving around the modification of these capsules will be much easier as we do not have to create as much test data ourselves.

Scrum Master: Nathan Schneider

Meeting Schedule: Thursday @ 11:30 am / Saturday @ 3:00 pm

Overview of Risks and Challenges

The main challenge of this sprint will be learning how to use the Google Vision API. We will need to figure out where and when to actually do the processing required for the Google Vision API. In addition, issues could arise if the user has a substantial amount of photos or a very limited selection of photos. In the case of substantial photos, we wouldn't want to analyze every photo but also would want to skip over a quality photo. In the case of a limited selection of photos, the question arises at what

point do we choose a default photo over a bad photo from the user's camera roll? These issues pose risks to our project and we will carefully navigate them.

User Stories

User Story #1

(3) As a user, I would like to be able to pick a profile picture during registration, so that I can better identify myself on the platform.

#	Description	Estimated Time	Owner
1	Create add picture page for registration, and create add picture button	1 hr	Evan
2	Implement photo selection	2 hrs	Evan
3	Save that photo in MongoDB	1 hr	Evan
4	Implement profile photos throughout app	2 hrs	Evan
5	Debug and complete unit testing for selecting a picture	2 hrs	Evan

Acceptance Criteria
- Given that the navigation is correctly implemented, when a new user is registering, a profile picture page is prompted in the sequence.
- Given that the UI is correctly implemented, when the user is on the profile picture selection page, they will be able to choose a profile picture.
- Given that the MongoDB correctly stores the data, when a user navigates to their profile or main page, their profile picture will be properly displayed.
- Given that the MongoDB correctly stores the data, when the user doesn't choose a profile picture, then a placeholder displays instead.

User Story #2

(6) As a user, I would like to be able to delete my account, so that I can remove my information from the platform.

#	Description	Estimated Time	Owner

#		Estimated Time	Owner
1	Add delete account button profile page	1 hr	Nathan
2	Delete account from database	3 hrs	Nathan
3	Navigate user back to main page	1 hr	Nathan
4	Delete user data from all friend pages	2 hrs	Nathan
5	Debug and complete unit testing to ensure user data is correctly deleted	2 hrs	Nathan

Acceptance Criteria

- Given that the UI is correctly implemented, when the user navigates to the profile page, there is a delete account button which when pressed brings the user to the login page.
- Given that the MongoDB is correctly updated, when the user re-registers, then the user has no friends and capsule history, and when those pages are navigated to it displays no friends/capsules.
- Given that the MongoDB is correctly updated, when a user deletes their account, their profile and capsules will no longer appear on their friend's StoryBoard and Friends pages.

User Story #3

(9) As a user, I would like to be able to link my spotify, link my instagram, and change my profile picture, on the 'my profile' page, so that I can update any information linked to my account.

#	Description	Estimated Time	Owner
1	Add those buttons corresponding with each functionality in profile page	1 hr	Peter
2	Create API call to link Spotify	2 hrs	Peter
3	Create API call to link Instagram	2 hrs	Peter
4	Create option for user to change profile picture	3 hrs	Peter
5	Debug and complete unit testing for aspects of the profile page	2 hrs	Peter

Acceptance Criteria

- Given that the MongoDB data is correct and the UI is correctly implemented, when the user has not yet linked their Spotify account, a button should be shown which when clicked will allow the user to log into Spotify.
- Given that the MongoDB data is correct and the UI is correctly implemented, when the user has not yet linked their Instagram account, a button should be shown which when clicked will allow the user to log into Instagram.
- Given that the UI is correctly implemented, when the user changes their profile picture, they are prompted to select a new profile picture and it is updated throughout the app.

User Story #4

(16) As a user, I would like to have a history page where I am able to see previous capsules, so that I can reflect on previous months.

#	Description	Estimated Time	Owner
1	Create History page which can be navigated too from profile page	2 hrs	Evan
2	Save all capsules into MongoDB	2 hrs	Evan
3	Display all past capsules in scrollable list	2 hrs	Evan
4	Check functionality in MongoDB and on interface stays up to date	1 hr	Evan
5	Add back button and swipe feature to return to profile page	1 hr	Evan
6	Debug and complete unit testing for history page capsules	2 hrs	Evan

Acceptance Criteria
- Given that the UI is correctly implemented, when the user navigates to the profile page, then there will be a button that navigates to the history page.
- Given that the history page is correctly implemented, when on the history page users will be able to scroll down to see all past capsules.
- Given that the navigation is correctly implemented, when users swipe left on top of history page you will navigate back to profile page.

User Story #5

(17) As a user, I would like to be able to click on a snapshot to enlarge it, so that I can view more options regarding the snapshot.

#	Description	Estimated Time	Owner
1	Add page for enlarged snapshot	2 hrs	Evan
2	Add a way for user to return to scrollable history page	2 hrs	Evan
3	Resize picture to fill as much of the screen as possible	4 hrs	Evan
4	Debug and complete unit testing for enlarging snapshot	2 hrs	Evan

Acceptance Criteria
- Given that the UI is correctly implemented, when the user is on the history page and clicks on their snapshot, then it will be enlarged.
- Given that the UI is correctly implemented, when the user is on the storyboard page and clicks on a snapshot, then it will be enlarged.
- Given that the UI is correctly implemented, when the user taps off the snapshot, then they will return to the page they were previously on.

User Story #6

(23) As a user, I would like the Story Board to be reset every month, so that I can only view the most recent capsules.

#	Description	Estimated Time	Owner
1	Develop Mechanism to clear Story Board	3 hrs	Peter
2	Display the most recent capsule for all friends that have shared their new capsule	2 hr	Peter
3	Automatically clear Story Board once the countdown hits 0	4 hrs	Peter
4	Debug and complete unit testing for Story Board reset	2 hrs	Peter

Acceptance Criteria

- Given that the UI is correctly implemented, when the timer hits 0, then the Story Board will be cleared for all users.
- Given that the UI is correctly implemented, when the timer hits 0, then a message will be displayed on the Story Board saying that when friends post their capsules, they will be displayed
- Given that the UI is correctly implemented, the Story Board will not display new capsules until friends share them

User Story #7

(25) As a user, I would like to be able to view my snapshot at the end of the month, so that I can reminisce on the past month.

#	Description	Estimated Time	Owner
1	When the countdown reaches 0, trigger an event to begin photo choosing.	3 hrs	Nathan
2	Display a "generating capsule" message on the main page while the algorithm creates the capsule.	2 hrs	Nathan
3	Combine all chosen photos and the song into a presentable capsule that can be displayed.	10 hrs	Nathan
4	Display generated capsule in main page.	2 hrs	Nathan
5	Debug and complete unit testing for generating capsules.	3 hrs	Nathan

Acceptance Criteria

- Given that the UI is implemented correctly, when the countdown hits 0, a "generating capsule" will be displayed in the main page.
- Given that the countdown event properly triggers, the application will automatically begin creating the capsule, with no user input.
- Given that capsule creation is properly implemented, after the capsule is generated, it will be displayed on the main page.

User Story #8

(26) As a user, I would like my snapshot to have my most played song of the month, so that I have another reminder of the month.

#	Description	Estimated Time	Owner
1	Retrieve Spotify refresh token from user's access token	2 hrs	Kevin
2	Retrieve the user's most played song from the user's refresh token.	3 hrs	Kevin
3	Write MongoDB requests to post and delete spotify songs from an associated capsule	2 hrs	Kevin
4	Debug and complete unit testing for retrieving most played spotify song	3 hrs	Kevin

Acceptance Criteria
- Given that the UI is correctly implemented, the song on the capsule should be properly spaced regardless of song name length.
- Given that the user has linked their spotify account, their most played song from the month will be neatly displayed within the capsule.
- Given that the user has not linked their spotify account, a default song will be chosen and displayed on their capsule.

User Story #9

(28) As a user, I would like Time Capsule to intelligently choose photos for my snapshot, such as landscapes and people smiling, so that I have quality photos for my capsule.

#	Description	Estimated Time	Owner
1	Implement functionality to collect photos from the month from the user's camera roll.	5 hrs	Kevin

#	Description	Estimated Time	Owner
2	Figure out how to upload photos to Google's Vision API and then retrieve the JSON file	8 hrs	Kevin
3	Write an algorithm to search the JSON file for keywords dictating a quality photo. This would include people smiling, photos of nature, etc.	6 hrs	Kevin
4	Debug and complete unit testing for intelligently choosing snapshot photos	4 hrs	Kevin

Acceptance Criteria
- Given that the intelligent algorithm is implemented correctly, when the User receives their capsule, it will contain several pictures of landscapes if the user has such pictures.
- Given that the intelligent algorithm is implemented correctly, when the User receives their capsule, it will contain several pictures of people.
- Given that the intelligent algorithm is implemented correctly, when the User receives their capsule, it will avoid inappropriate photos and generally "boring" photos.

User Story #10

(30) As a user, I would like my snapshot to not contain identical pictures, so that I have a variety of photos on my snapshot.

#	Description	Estimated Time	Owner
1	Write an algorithm to analyze the JSON file from Google Vision API and compare it to already chosen photos.	6 hrs	Peter
2	Debug and complete unit testing to verify there are no identical pictures.	2 hrs	Nathan

Acceptance Criteria
- Given that the intelligent picture choosing is correctly implemented, when the user receives their capsule, there won't be any duplicate pictures.

- Given that the intelligent picture choosing is correctly implemented, when the user receives their capsule, it will not contain photos that are very similar.
- Given that the intelligent picture choosing is correctly implemented, when the user receives their capsule, it will contain a variety of many types of photos.

User Story #11

(31) As a user, I would like my snapshot to pick default photos / songs if I have not taken enough pictures / linked my spotify account , so that I always have enough information for the capsule.

#	Description	Estimated Time	Owner
1	Organize a collection of photos in MongoDB to choose from if enough quality photos can not be found.	2 hrs	Nathan
2	Organize a collection of songs to choose from if Spotify songs can not be found.	1 hr	Evan
3	Implement functionality to retrieve default photos from MongoDB in the case that user data is insufficient.	2 hrs	Evan
4	Debug and complete unit testing for retrieving default information if there isn't enough information from the user.	2 hrs	Evan

Acceptance Criteria
- Given that the MongoDB data is correctly implemented, when the user doesn't have any pictures, then default pictures will be retrieved.
- Given that the MongoDB data is correctly implemented, when the user doesn't have enough pictures that make it through the intelligent algorithm, default pictures will be used for the rest.
- Given that the MongoDB data is correctly implemented, when the user doesn't have song information, then default songs will be retrieved.

User Story #12

(34) As a user, I would like to be able to share my snapshot to the Story Board, so that my friends can see it.

#	Description	Estimated Time	Owner
1	Add a publish button with good styling to the Main Page.	1 hr	Peter
2	When the publish button is pressed, it adds the user's current capsule to the storyboard for all friends to see.	2 hrs	Peter
3	Write MongoDB requests to update the published status of the selected capsule.	1 hr	Peter
4	Debug and complete unit testing for sharing snapshots to the Story Board.	2 hrs	Peter

Acceptance Criteria
- Given that the UI is correctly implemented, when the user navigates to the main page, they will see a publish button under their capsule
- Given that the MongoDB capsule data is correctly retrieved, when the user's capsule is already published, the publish button will no longer be shown.
- Given that the MongoDB is correctly updated, when friends publish their capsules, users will be able to see their friend's capsules on the Story Board page.

Time Breakdown

	Kevin	Nathan	Evan	Peter
User Story 1	0	0	8	0
User Story 2	0	9	0	0
User Story 3	0	0	0	10
User Story 4	0	0	10	0
User Story 5	0	0	8	11
User Story 6	0	0	0	0

User Story 7	0	20	0	0
User Story 8	10	0	0	0
User Story 9	23	0	0	0
User Story 10	0	2	0	6
User Story 11	0	2	5	0
User Story 12	0	0	0	6
Total Hours	**33**	**33**	**31**	**33**

Sprint Backlog

Functional Requirements

Login/Sign up

1. ~~As a user, I would like to be able to log in/sign up via my Google account, so that the log in/sign up process goes faster.~~
2. ~~As a user, I would like to be able to create a username during registration, so that I can identify myself on the platform.~~
3. ~~As a user, I would like to be able to pick a profile picture during registration, so that I can better identify myself on the platform.~~
4. ~~As a user, I would like to be able to have the option to link/not link my spotify account during registration, so that music can be part of my capsule account.~~
5. ~~As a user, I would like to be able to have the option to link/not link my instagram account during registration, so that recent instagram photos can be part of my capsule account.~~
6. ~~As a user, I would like to be able to delete my account, so that I can remove my information from the platform.~~

Profile, Friends, and History

7. ~~As a user, I would like there to be a profile page unique to my account, so that I have a central hub for all account information.~~
8. As a user, I would like to be able to toggle between light and dark mode so that I can view the app differently depending on my preference.
9. ~~As a user, I would like to be able to link my spotify, link my instagram, and change my profile picture, on the 'my profile' page, so that I can update any information linked to my account.~~
10. ~~As a user, I would like there to be a friends page with all information relevant to friends quickly accessible, so that I can complete any actions related to friends.~~
11. ~~As a user, I would like to be able to invite friends by username, so that we can see each other's capsules.~~
12. ~~As a user, I would like to be able to view who has requested me as a friend in the friends page, so that I can visualize who wants to be my friend.~~
13. ~~As a user, I would like to be able to accept or reject a friend request in the friends page, so that I can manage who can view my capsule.~~
14. ~~As a user, I would like to be able to remove a friend that I previously accepted, so that I can choose to no longer see another person's capsule.~~
15. ~~As a user, I would like there to be a history page containing a scrollable list of past capsules, so that I can be reminded of past months.~~

16. ~~As a user, I would like to have a history page where I am able to see previous capsules, so that I can reflect on previous months.~~
17. ~~As a user, I would like to be able to click on a snapshot to enlarge it, so that I can view more options regarding the snapshot.~~
18. As a user, I would like to be able to share my snapshot as an image to another app, so that I can easily send my snapshot to other people.
19. As a user, I would like to be able to edit my snapshot (options for edit page described later), so that I can further customize my snapshot.

Story Board (sharing snapshots)

20. ~~As a user, I would like to have a Story Board page, so that I can see my friend's snapshots.~~
21. As a user, I would like to be able to comment on my friend's snapshot after I enlarge it, so that I can leave my opinion about their snapshot.
22. As a user, I would like to be able to react to my friend's snapshot after I enlarge it, so that I can emotionally connect with my friend.
23. ~~As a user, I would like the Story Board to be reset every month, so that I can only view the most recent capsules.~~

Main Page

24. As a user, I would like to be able to see a countdown until I get my monthly snapshot if it is not time for it to be displayed, so that I know when to expect my new capsule.
25. ~~As a user, I would like to be able to view my snapshot at the end of the month, so that I can reminisce on the past month.~~
26. ~~As a user, I would like my snapshot to have my most played song of the month, so that I have another reminder of the month.~~
27. As a user, I would like a portion of the snapshot's song to play out loud anytime I am looking at a snapshot so that I can audibly connect with the capsule
28. ~~As a user, I would like Time Capsule to intelligently choose photos for my snapshot, such as landscapes and people smiling, so that I have quality photos for my capsule.~~
29. As a user, I would like my snapshot to use my Instagram photos, if I posted that month, so that I can relive the experiences in my capsule.
30. ~~As a user, I would like my snapshot to not contain identical pictures, so that I have a variety of photos on my snapshot.~~
31. ~~As a user, I would like my snapshot to pick default photos / songs if I have not taken enough pictures / linked my spotify account , so that I always have enough information for the capsule.~~

32. As a user, I would like my snapshot to contain a variable amount of photos, so that it allows more flexibility in the photo picking process.
33. As a user, I would like my snapshot to contain a quote from my song of the month, so that I am reminded of the lyrics.
34. ~~As a user, I would like to be able to share my snapshot to the Story Board, so that my friends can see it.~~

Editing

35. As a user, I would like to be able to view an edit page where I can access all features regarding the editing of a snapshot, so that I can have all editing features in one spot.
36. As a user, I would like to be able to click on a photo to change the photo in the edit page, so that I can replace the photo if I do not like it.
37. As a user, I would like to be able to click on the song to change my song in the edit page, so that I can choose another song I would rather have in the snapshot.
38. As a user, I would like to be able to edit the quote on the snapshot, so that I can add my own thoughts to the snapshot.
39. As a user, I would like to be able to change the number of photos used in the snapshot, so that I can have greater control over the photos shown in the snapshot.
40. As a user, I would like to be able to save my edited snapshot, so that it automatically updates my Story Board and history

Yearly Recap (Moments)

41. As a user, I would like to be able to insert brief descriptions of moments that occur throughout the year, so that I can remember them later on.
42. As a user, I would like to be able to see how many moments I have entered throughout the year, so that I have a visual reminder of how many moments I have already entered.
43. As a user, I would like to receive all the moments I sent at the end of the year, so that I can have a recap of all my favorite memories from the year.
44. As a user, I would like all user moments to have a timestamp of when they were submitted, so that I can better picture what was happening at that time.

Notifications

45. As a user, I would like to receive a notification when my monthly snapshot is released so that I know when it has become available

46. As a user I would like to receive a notification when someone accepts my friend request or invites me to be their friend so that I am up-to-date with friend requests
47. As a user I would like to receive a notification when someone reacts or comments on my snapshot so that I am aware of the reactions / comments
48. As a user I would like to receive a notification when a friend shares their snapshot to the Story Board so that I know and can go look at it