CS 307 Sprint 3 Planning Document

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User Stories

- As a user I would I like to set administrator to a map. Only administrators and myself should be able to add or modify the map.
- As a user I would like a two way sync of my maps between the web and the android application.
- As a user I would like the administrators I add to a map to also be synced with the web as I add them.
- As a user I would like to search for public maps on the web and on android application
- As a user, I would like to edit metadata for taks individually and for a whole map.
- As a developer, I would like well-defined api documentation with clean urls.
- As a user I would like to receive feedback when the application is busy.
- As a user, I would like to be able to click on a tak in the tak list and be brought to that tak in the map.

Tasks

- Travis Coria
    - Improve functionality of TakList(15-20 hours)
        - Clicking on a tak will bring up a DialogFragment where the user will be able to view the meta data for the tak, jump to that specific tak on the map, or delete it if they're the administrator.
        - Ability to search for a tak within the TakList. This will be done by implementing a text box at the top of the list, where the user will be able to type in their search query.
    - Delete taks from single tak view/list view. Update map that it was in. (web) (5 hours)
        - There should be a button that allows users to delete a Tak that they have access to.
- Trevor Coria
    - Design better application icon(2-7 hours)
        - The application icon we currently use is just clipart from the Android SDK. We need a new one which looks good enough to present.
    - UI and backend functionality to delete maps (10 hours)
        - While a user is viewing the maps they have access to, they should be able to delete any of them. This will be done by clicking on a Map in listview, and then selecting the 'delete' command. There will be no traces of the map after it has been removed.
    - Delete taks from single tak view/list view. Update map that it was in. (web) (5

hours)
        - There should be a button that allows users to delete a Tak that they have access to.
    - View/Search for metadata in a given map or Tak(5-10 hours)
        - A user should be able to perform a search on the current map or a specific Tak for keys as well as values.
        - The user will be able to access the search feature after they have selected a map. Accessing the options menu will allow the user to search the current map, while clicking on a Tak within TakList will allow them to search within a Tak.
- Tylor Garrett
    - Sync public/private status to server (5-10 hours)
        - The local database stores information about whether a map is created as public or private. Changes will be made to the async task which pushes maps to the server which allows for this information to be communicated.
    - Refine add administrator UI (5-10 hours)
        - Currently, the user can add a single administrator when they are created.
        - The UI will be improved so that we can add as many administrators to maps as the user desires. These changes will then be pushed to the server as administrators are added.
    - Refine metadata UI (5-10 hours)
        - Currently, a single pair of metadata can be added to each tak.
        - The UI needs to be improved such that the user can add an arbitrary number of key/value pairs. Additionally, a drop-down box will be provided such that it provides keys which the user has already submitted for taks in the same map.
        - This information will be synced to the server every time a new key/value pair is added or one is modified.
- Michael Hockerman
    - Cache newly created maps and taks to the database before doing network transactions (Android) (5-10 hours)
        - All maps have unique IDs associated with them which are generated by the server. When we create a map on Android, we need to store the unique ID generated by the server so that when the user adds taks to the map they are stored correctly.
        - Currently we are accomplishing this by, when the user adds a map or a tak, the UI is blocked and the app waits on the network call to return the map or tak ID. This is not a good user experience.
        - For sprint 3: When the user creates a map or a tak, it should be committed to the database with a temporary ID. When the network transaction returns with its “real” ID, we need to update the ID in the

database and update the MapID of any taks the user might have added between when the temporary ID was added and the real ID was updated.
        - We also need some way of invalidating or updating MapObjects which exist in memory so that if the app generates one with a fake-ID we can update it to its real-ID.
    - Allow users to manually select a location for their tak (Android) (7-12 hours)
        - Currently, users can only pin taks at their current GPS location.
        - We would like to present the user with the ability to click on a map to add a tak at the clicked location. The tak would be added normally to the database and server after this, with the ability to add names and metadata like normal.
    - Refine UI (Android) (10-20 hours)
        - Currently, the UI is a simple and functional hierarchy.
        - We would like to change this to improve the user experience of the application. These changes might includes such things as implementing a side drawer, moving buttons out of the action bar and onto the screen in a user friendly manner, and using dialog fragments when appropriate.
    - Edit-Map UI (Android) (3 hours)
        - When the user has created a map, they have no way at all to make changes to it. These changes could include editing its name, public/private status, and adding administrators.
        - A UI needs to be created where these changes can be made. The backend/syncing changes necessary to make the edits do soemthing will be handled by other group members.
    - Edit-Tak UI (Android) (3 hours)
        - When the user has created a tak, they have no way at all to make changes to it. These changes could include editing the tak's name, description, and adding/editing metadata.
        - A UI needs to be created to facilitate these changes. The backend changes necessary to make them work will be handled by other members.
    - Document and clean up code (Android) (5 hours)
        - Much of the code has no comments and lots of formatting errors. These should be improved before the app is "released" as the end of sprint 3.
- Kyle Potts
    - Backend: Update local map and tak cache from server
        - Currently there is only a one way sync (android -> server). We need to create (server-> android) sync. This will be done by making a request to the server for all the users maps. The response from this request will contain the update information about the users maps. This information will

be put into the database essentially updating the maps.
    - Backend: Sync administrators to the server
        - This is will be similar to adding a tak to a map, but instead a admin email is provided to the server and the server will find the account associated with that email, and will add that account to the list of of admins. Then a admin's userId is sent back to the app. The app will store this data.
    - Search for public maps
        - This will be done by searching the database for a map with a specific name. The result will be returned in a list like view on the web, and clicking on a result will bring a user to the maps view page. An API for this will be created so the android app can search as well and this data will be returned in a listview.
    - Add administrator to maps
        - Add ability to add an admin to a map. Only admins and the map creator should be able to edit a map.
- Nick Stanish
    - (web) Loading indicators (7+ hours)
        - There are many areas of the website where server requests can take quite some time and the overall responsiveness of the application appears very slow. Although efficiency would be ideal, due to constraints the application must at least provide feedback and show indicators that the application is busy.
    - (web) "Create map" modal hang (3+ hours)
        - Currently when adding a map, there is a noticeable hang where the user might be unsure if their button press of "add map" was processed successfully. To provide feedback and prevent duplicates the server will only allow one map of a given name to exist for a given user and the website will disable the add button and display a loading indicator or even continue with the request in the background and hide the modal unless there was a problem.
    - (web) Favorite maps - action and display (8+ hours)
        - When a user sees a public map, they might want to save the map for future use. To make it easy to find that map again, they should be able to favorite it and easily access it later.
    - (web) Edit tak location and metadata (7+ hours)
        - Tak location should be very friendly to update by allowing the user to click on a location on the map (similar to how taks are created) in order to select a new location. Also, there needs to be a dynamic display and creation of metadata for taks which should take the format of name-value pairs, but depending on time, there could also be "Tags" which are simply names.
    - (web) Edit map level metadata (4+ hours)
        - In addition to taks, a map can have metadata that can apply to all taks

inside of a map.

- (web) Move/Copy a tak to another map (5+ hours)
  - This involves both a server operation as well as website interface for selecting which maps a tak can be in.
- (web) API routes + documentation (8+ hours)
  - Part of our initial outline was to allow 3rd party api access. This requires heavy documentation of how to access resources and perform operations on our data. We probably won't get to full api access, but for our own use we need well-defined documentation for permanent urls to data. In the past sprint this caused some confusion as routes changed to meet one person's needs but not another's. This involves including information about what each api url requires, does, and returns. The urls should be clean .
    (e.g. /api/users/<user id>/ rather than /api?user=<user id>)
- (web) Create tak with new map (4+ hours)
  - Currently when you create a tak, there is an option to select a new map to put the tak inside, but it does not actually create a new map. This change will allow users to directly create a a tak on a new map without first going to the maps page and creating a map.