

Sprint 1 Planning Document

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Sprint 1 User Stories

- As an administrator, I would like to be able to authenticate with the MapTak backend servers using Google sign-on.
- As a third-party developer, I would like a REST API to be available.
- As an administrator, I would like to be able to create new maps in the Android app
- As an administrator, I would like to be able to add taks to a map I have create
- As a user, I would like the website homepage to be easy to view, and allow me to quickly sign up.
- As a administrator, I would like to be able to add a Tak to a map I created on the web.

Sprint 1 Tasks (times given across entire 3 week sprint)

➤ Michael Hockerman

- Main Activity (6 hours)
 - Our application will, currently, be comprised of a single parent activity which manages all fragment transactions and user input. This activity needs to be created, along with all of the housekeeping things which come along with that, such as creating XML layout files to arrange fragments on the screen, inflating those XML files, and handling button input.
- Map Fragment (12 hours)
 - MapFragment is a sub-class of Google's official Play Services MapFragment class. It is simply a Google Maps view which can be inserted into an application. We need to set up the Play Services library, authenticate our application with the GMaps v2 API, and set this fragment up on the display so it is positioned correctly regardless of screen size.
- Data Interface (15 hours)
 - The Data Interface class will be the point where the Fragments access stored information about available maps/taks. It will maintain a SQLite database that stores a cached copy of all the map/tak information the user has access to. It will also initiate cache refreshes, which will eventually download the JSON files from the API and parse it.

➤ Tylor Garrett

- Map List Fragment (15 hours)
 - A UI fragment which displays a list of all the maps the user has access

to. It will get this information from the data interface in the form of a list of Map objects. It will essentially be a custom ListView/Adapter, where each item contains information such as a map name, administrator, last modified date, and delete buttons.

- Map data object (12 hours)
 - Object which encapsulates all the data related to a Map object.

➤ Nick Stanish

- Website Homepage Views (9 hours)
 - Create interface and templates to be used on website.
- Web data display (10 hours)
 - View raw tak data on the web.
- Account distinction (5 hours)
 - Every account is user until they start creating or editing taks. In order to protect data from being edited in any way by users who do not have permission, there must be some sort of distinction and checks in place. I will begin the process of setting up our server for this ability.
- REST API and routing (6 hours)
 - Create fixed URLs within the server for acquiring data from our servers. These URLs must be properly routed within Flask to point to the desirable data.

➤ Kyle Potts

- Account Creation (5 hours+)
 - Users need to be able to create an account with our website. We will use Google Authentication in order to create accounts. This means we will be using a person's Google Account to create an account with our website.
- Admin Create Map(10 hours+)
 - Administrators need to be able to create a Map easily. The creation of the map means that a Map class needs to be created, and the corresponding data about the map class needs to be created as well. All the data about the Map (eg the Map object) should be stored in the database.
- Routing Handlers(6 hours)
 - The REST API has a set of fixed urls which either a GET or POST request is sent to. For each URL a specific handler is needed for GET and POST. These handlers need to be defined in each approute. For GET Methods we need to send data to the client, depending on what url the GET request was sent to, and return JSON to the client. For a POST request, data is sent to the server. We need to use this data and create new objects or edit existing objects data.
- Adding Tak to Map (6 hours)
 - Create a simple way to add a Tak to a created map. A tak class needs to be created as well as stored in the database.

➤ Travis Coria

- Tak List Fragment (10 hours)
 - Android UI which lists all the current taks on the map which the admin is viewing. Gets this information from a method in Data Interface. Lists Taks in a listview with basic information about the tak including

latitude, longitude, labels, and associated key/value pairs. Each Tak will also include a button or some other action to remove the tak, which will correspondingly remove the tak from the local cache of the data and synchronize the change with the server api.

- Tak object (5 hours)
 - Object which encapsulates all the data related to a specific tak. Need to create the Object in Java for the android portion of this project. This code will contain the parts which we will serialize and send to the server as JSON, and also we will be able to construct a Tak object from data sent from the server when it is data is received about Tak is requests.

➤ Trevor Coria

- Add tak fragment (12 hours)
 - Android UI which allows the user to create a Tak. The fragment should add a Tak to the current Map and send the data to the server with information pertaining about the Tak (see Tak class).
- "Create map" fragment (15 hours)
 - UI which allows the user to create a new map. Initializes a Map object with some data, and interfaces with the data interface to cache the data locally and send the information to the server that a new Map was created.