Peer Review

Feature Name: Interactive Geo-spatial Map

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Reviewed by: Phong Cao

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Major Positives and Negatives:

- Positives:
    - Detailed design that laid out all the steps needed for the feature.
    - There are clear designs for the front end user action, which would make front end design and development more straightforward.
    - There is a clear separation of concerns within a class; the main functionalities of a class are broken into smaller helper functions that are more maintainable and understandable.

- Negatives:
    - You should not be calling the getAllLLI function from the MapController. It is already implemented in the LLI WebService, you can call it from there instead.
    - You should specify all the steps for the fetchPinData function. I am assuming this function goes all the way to the database, so you are missing a lot of steps if you are skipping this. Assume in your sequence diagram that you have no pin status.
    - Your service layer should process the Response Object that is being passed back from the repo layer, you should not be passing objects through layers.
    - Your timer should be in the web service layer, as that would allow for you to track the time of the whole process, instead of just the repo layer.
    - Your MapService and MapRepo classes should be interfaces, which would allow you to do dependency injections.
    - The CreatePin function is returning a Response Object, but it is not creating one. Right now, the Response Object is being passed back from the Repo layer. You should not do this. Instead, you should create the Response Object in the

CreatePin function, and pass that Object into the Repo layer. This way, you follow the dependency inversion principle.

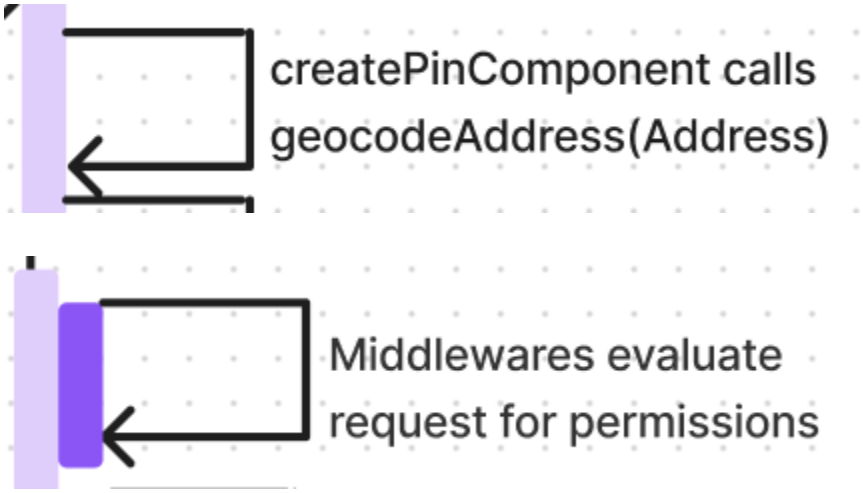
    - For your failure designs, you are not returning the correct error code. For some of them, you are returning a 200, but there is clearly an error with the backend. You should return the correct error code so the front end knows what to do.

Unmet Requirements:

- There are no unmet requirements.

Design Recommendations:

- There is some inconsistent formatting with the self referencing line. Either all of them need an extra block, or they don't need an extra block at all.



- For the front end, you need to be consistent with the namings of your functions. Right now, they are a mix between camelCase and PascalCase, you should pick only one. I recommend camelCase, as that is what we have been doing for the other front end functions.

- You should specify the data types of the function parameters in the back end. For example, here you should specify the data type of the appPrincipal and the createPinRequest.

- Your Response Object should be before the Data Access layer. For some of the tests, it is after.
- You should specify what model class contains. It is unknown what createPinRequest contains. Specifying the details will allow for you to more easily implement the design in a comment next to where that Object is.
- I don't know what function is carrying this out "JS uses fetch API to create a request to create Pin". You need to specify how you are doing this. Since you already have a function called createPin(), I recommend creating another function to do the API request called createPinInBackend(), to separate the front end logic and the web service calls.

Test Recommendations:

- You need to test your backend more thoroughly. Every backend function should be tested. Here are some tests that you should be implementing. This applies to all user stories LLD
    - Service Class
        - What if the app principal is null. Try passing a null appPrincipal into your functions, they should be returning an error.

        - What if the app principal is unauthorized. Try passing an app principal with an invalid user role into your functions, they should be returning an error.
        - What if the pin options are invalid. Try passing an invalid pin into your function, they should be returning an error.
    - Repo Class
        - What if the pin request is null. Try passing in a null pin request, there should be an error.