

Digital Experience Group Developer Tech Challenge (final stage of your interview)

This is a planning exercise. You don't need to make the app, or any portion of it. The point of this exercise is to get a sense of your research process and to learn a little bit about how you work. *Do not spend more than a few hours on this.*

Scenario: A prospective client has asked us to build a product that allows researchers to catalog and map certain points of interest in a large state forest and display those results to end-users on a website. From their ask:

"I would like to create an app that I can take with me in the state forest, and when I encounter certain flora, fauna or points of interest (unique trees, rocks, animals, etc), I can snap a photo of it, log in to this app, upload the photo, and store a description about it. I would like anyone on my team of 3-5 researchers to have the ability. My team should each have their own unique logins to manage the POIs.

I would like the POIs that I upload to be displayed on a website for the public to see, overlaid onto a map of the state forest, so others can go observe these unique findings. Users on the website should not need to log in to view the map."

Your Task: Conduct a little research to help me identify the tech stack required to make this product happen. Write up your recommendations for an overall approach to developing this platform, including recommendations regarding database technology, backend technology, and front-end technologies, as appropriate.

Consider things like:

*Note: We really care about the **why** aspect of the following questions.*

- What solution would you use for mapping? Why? (The DXG has [used MapBox before](#))
- We probably can't afford to make a bunch of native apps (iOS, Android, etc). How would we make this thing cross-platform?
- Any front-end frameworks you'd suggest we use? Why?
- Any back-end technology you'd suggest we use? Why?
- How do we handle the login stuff?
- Where should we store the data on uploaded POIs and what does that data look like? (The DXG has used [Cloud Firestore](#) and [Supabase](#) a lot lately)
- What happens if the researchers lose cell service in the middle of the state forest?

Delivering Your Recommendations:

- Put your recommendations into a simple HTML page, then into a github repo, and send us the GitHub pages link.