**# Project Contract**

**## Overall Goals and Feature Scope**. What features the project will (and will not) deliver, in order to avoid future shifts in the level of ambition. These goals can be anything you have discussed with the client, such as functional, strategic, technological, quality, or ethical. Note, this may involve some negotiation about the team or Client's priorities.

\* Functional Aspects:

\* Provide a platform to enhance Nasher exhibits with a digital component. The app will provide additional context and information about exhibits, as well as additional visualizations to improve visitor experience.

\* Allow curators to enter the app from an admin account to add exhibits and objects, and associate related content (images/sound/models) to be displayed.

\* After the development of the basic framework, we are looking to be able to develop 3-D modeling or visualization of different artifacts, for example the double-vessel sculptured sound-chamber could have user interaction to allow for an emulation of what the sound would be like.

\* Implementation of the features are very open-ended, as expressed by the client. We are free to use whatever platform, technologies, or languages that are necessary to push our ideas into fruition. Currently we are looking at developing a web application, so probably using Javascript + related libraries like React on the front end. For the back end or data store we are fairly open as well, but maybe tentatively Firebase for easy implementation.

**## Design Goals**. The overall *very* high level design of the project, emphasizing the priorities regarding flexibility and maintenance, rather than what classes implement what features. From this section, it should be clear: what features you view as core and integral to the app versus what can be added later, what will be easily changeable in the future and what will require programming expertise, and what changes the client will need to be responsible for in the future

\* Curators are able to create new "exhibitions" in the web app, and then add individual exhibition pieces to the exhibition. Curators can then add information like the description or images to the exhibition piece's page. Finally, the curator has the option to launch the piece's page in "present" mode to use in the actual exhibition.

\* It is also necessary that our web app follows Nasher's design language to fit in with the museum's aesthetic.

**## Dependencies**. Anything the project is dependent on, such as the resources you are expecting from the client or software you intend to use to complete the project.

\* Our project is dependent on the information and images/3D models of the exhibition pieces from the client to serve as the content of our web app. However, even if the client doesn't provide the information, images or 3D models, our project can still serve as a general-use museum web app.

**## Concerns**. At least *three* concerns or risks about getting the project done. To help you brainstorm possible issues, do a [***premortem***](https://hbr.org/2007/09/performing-a-project-premortem) as a team to imagine ways in which the project might not be a success (here are [**some common team project issues**](https://www.apm.org.uk/blog/10-common-problems-project-teams-face/) to consider).

\* Technical Aspects: None of the team members have experience working with or manipulating 3d models or photogrammetry. As such, we have little frame of reference for how complex associated tasks are, nor do we have a great idea of what future hurdles we might encounter and how to overcome them. We could potentially end up spending significant amounts of time trying to learn these skills instead of implementing features.

\* Low Engagement. Given that we are Duke students who are enrolled in more than just this one class, there will be inevitably be times where we cannot commit 100% to Coding the Collection. However, we have to ensure that low engagement is not a recurring theme throughout the semester, as this group project requires everyone to be valuable contributors. As stated in <https://www.apm.org.uk/blog/10-common-problems-project-teams-face/>, one of the keys to avoiding this issue is involvement. So long as we keep each other involved with the project and maintain clear expectations, we can hopefully avoid low engagement.

\* Working in Silos. This project contains multiple components, and we plan on tackling some tasks concurrently. It is critical that we still work together as a team even as we work on separate items. To avoid “working in Silos”, we have to take advantage of our communication channels (ex. Slack) and ensure we are aware of what others are working on and how it all comes together.

\* Project Scope + Communication with Client: We are still in the midst of ongoing discussion with our client about the extent of our project and what kind of platforms, scope, and features will be implemented in the final deliverable. At first, we want to develop the platform for allowing curators/admins of the exhibits to manually input their own images/descriptions to give more contextual support to existing artifacts. However, our reach goal is creating 3-D modeling and something that one of our clients is especially interested in. Thus, one of our concerns is making sure we can create something that is both satisfactory/impactful to our clients as well as being feasible given the scope of our project. We hope to do this by maintaining strong and clear two-way communication, frequent in-person meetings (this should not be an issue as one of our team members takes a class with one of our clients), and regular updates on Slack and other channels.

**## Team Organization**. The external [**team roles**](https://www2.cs.duke.edu/courses/compsci408/fall19/assign/roles.php) each person will take on and the internal parts of the project each person will focus on (e.g., frontend, backend, data wrangler, etc.)

\* Edward Zhuang: Business Analyst and backend developer.

\* Santo Grillo: Project Manager, front end developer

\* Will Ye: Technical Lead and general full-stack developer

\* Sam Chan: Quality Assurance Lead. More of a backend developer but willing to take on any role