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Transcript

- Customer begins his problem statement by stating the fact that he has a lot of things that he would like to share with people around the world. Also expresses the desire to allow others to add to his museum application.
- Mentions the fact that most museums want people to physically visit the museum. Challenges us to create the same experience in a virtual application as if the user has visited the museum physically.
- Stresses the fact that an immersive environment and a positive user experience is of utmost importance.
- Paraphrases the project as similar to a "wiki-museum" where the project implements the community revision system that Wikipedia uses. Wikipedia also allows users to add their own pages and similar to this, the customer wants users to have the ability to add their own museums to the application. However, the customer also mentions that this application is not open-sourced, which means that users can only add pages to the museum at the customer's discretion.
- Offers examples of virtual museums and explains what of each example he likes. For example, Amorphic Robot Works has a very aesthetic user interface, but the audience is more for people interested in art and not for the general public. The customer wants the application to be like the Evolution Store in that it presents a very categorized way to organize items and is simple to navigate around.
- Requests a user hierarchy where users higher up on the hierarchy have the ability to remove users from the application.
- Defines "museum" very broadly, expressing that, in this project, a single item can be considered a museum. Although this definition is broad, there should be a prioritizing of museums.
- The entire museum is to be set up as a "museum of museums", providing a recursive structure to go deeper and deeper into each museum.
- Additional features such as a search bar, comment section, and an analytics page are not necessary, but are possible implementations as long as these features enhance the immersive environment as described by the customer.

Definition of Problem

Definition: The customer is looking for a virtual museum application that helps users and museum curators to efficiently navigate through museum artifacts as well as offers an opportunity to explore new museums and their contents.

Problem Description

In order to showcase multiple museums and its artifacts, the customer has requested a versatile application that includes features such as a museum hierarchy, the ability to add and remove users, the ability to navigate through different museums easily, and an aesthetic user interface. These features are vital to the application because the customer would like to share his passions to the users through these artifacts and build a community where all different artifacts can be appreciated. To build this community, the customer has specified the importance of allowing other users to share their artifacts as well as remove users at his discretion. Additionally, to be able to optimize exploration and artifact appreciation, it is necessary to implement the application so that moving throughout the museum hierarchy is seamless and efficient.

User Stories

1. As a visitor, I want to explore not only a single museum that I like, but be able to explore the museums that comprise it/ are under it because I am interested in the museum topic.
2. As a museum curator, I would like to add pictures and a description to my museum's page because I want to spread information on a certain museum entry to the visitors of my page.
3. As a visitor, I want to be able to express my approval or disapproval for certain museum posts (a 'liking' system) to the curator because I want the curator to make more posts that are similar to what I like.
4. As a system admin, I want to be able to invite new curators to increase traffic on my platform, yet be able to kick out curators on my platform who I do not want on my platform because I want total control over who is on my platform.
5. As a visitor, I want to be able to search for a museum by its title or key terms because then I can easily find the museum I am looking for.
6. As a visitor, I want to be able to see other museums that a museum curator I like has created (museum curator profile page) because I might like those other museums as well.
7. As a visitor, I would like to be able to see the past museum pages that I have expressed my approval for(have 'liked') because I enjoy learning about those museums.
8. As a visitor, I would like to see "trending" items and collections at the front of the main page that other people like because I want to see why certain galleries are popular.
9. As a visitor, I would like the ability to comment on items in the museum because I would like to start a discussion with other visitors.
10. As a museum curator, I would like the ability to choose if comments are available for certain posts or not because I want to prevent offensive statements from being said on posts covering sensitive issues.

Design Proposal

To implement the application to best fit the needs of the customer, it is crucial to establish a strong foundation of how the museums and its artifacts will be portrayed because all of the other features will revolve around this design decision. With this in mind, the fundamental structure of the application will be a single parent museum with layers of children museums under it. As more artifacts and museums are created, more museums are added to the structure. This type of structure allows for a hierarchy and organization of artifacts, which is important because artifacts can then be categorized and navigation throughout the museum is more efficient. With this structure, any path from the initial parent museum can be tracked, which will make moving back and forth throughout the museums seamless. Furthermore, such a parent museum does not contain content, but instead, is used as the 'root' of the overall museum structure, and is used for organizational purposes. Since the application is categorized, removing and adding museums or artifacts will be more efficient because the categories continuously become more specific as the user navigates deeper into the hierarchy. The design and implementation of all other features in the application will be consistent with this fundamental structure in order to optimize user experience. The proposed design takes two aspects of the system in mind, each pointed out in the use case diagrams below.

As the discussion of an organized, hierarchical basis for this system has been highlighted, it is only natural to move on to how the app is used by curators (the creators) and system admins (the managers) to manage such a structural approach, as is depicted in the first use case. Afterwards, a discussion on the visitors' interaction with the application logically follows.

The primary role of the system admin is to control which curators are allowed on her museum hierarchy. As a result, the system admin can invite curators to the platform to invoke the creation of museums. She can also kick curators out of her platform, curators she feels have not contributed positively to her museums.. This is all the system admin can do. The curators, however, have a role that is an integral part of the application, and necessary for the existence of actual content on the application. This is, of course, the ability to create museum entries within the system admin's hierarchy. A curator can either create a museum on the highest level of the museum hierarchy for the admin's structure (right beneath the parent museum), or decide to create a museum that exists under another established museum that is not the parent museum, a sub-museum. This functionality of the curator is what gives the system a hierarchical identity, and allows certain topics presented in a museum to be expanded upon in one of the museum's sub-museums. A picture is required and a description is optional for each museum page created. The

reason a picture is required is because museums predominantly show artifacts through a visual lens. Furthermore, a description is optional to allow curators to post things that are open for interpretation. Also, when visiting museums, reading descriptions are not as essential to the experience as looking at artifacts in real-life is. Each museum page will have attached key terms to it that will aid in the process for searching for museums. The final piece of functionality for a curator is to disable comments on their posts. Posts have the option to be commented on (which will be discussed further when talking about the interaction visitors have with the application). Curators can choose to disable comments from their museum pages so as to ensure that there is an air of censorship around museum entries that bring up a particularly sensitive issue.

As the role of the curators and the system admin has been explored within the management of the system, the visitor's role within navigating and interacting with posts can be explored. A visitor can initially either visit the application's home page, a curator's page, search for museums, or visit a specific museum page directly. The application's home page would contain links to the largest museums under the parent museum. Visiting a curator's page would contain not only information about the curator, but, most importantly, museum pages that the curator has created. Searching for museums would bring up a list of museums that either (1) are similar in title to what the user searched or (2) contain key terms that are what the user searched up. This allows for visitors to not only easily navigate to a specific museum in mind, but search for museums that relate to the visitors' preferences. The generated list offers links to the museum pages it provides. Once a museum page has been visited, the visitor sees the picture and the description that the curator uploaded to that museum page. The visitor also has the option to 'like' the post, view and write comments on the post, and view and click links to the sub-museum pages of the current museum page the user is on.

This design provides a highly organized, hierarchical structure for the museums which easily allows curators and system admins to control the information in them, yet allows the visitors to effectively navigate around them.

Use Case Diagrams