

User Guide For Interactive Map Software

Written By: Kevin Olenic

Overview:

The Interactive Map software is an open system concept that allows users to craft customized maps, edit the information if changes occur or delete the data if it is obsolete. The system also allows users to display the maps for different museums for different users, who can also make alterations to the maps stored in the system.

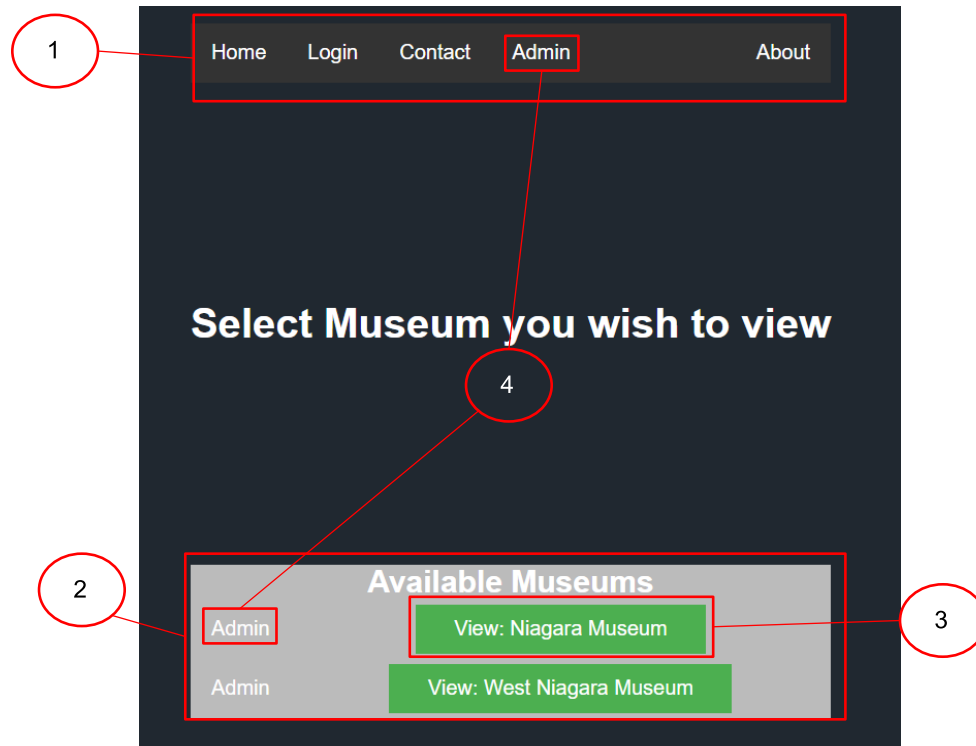
Features:

- Real time access to map data
- Allows high level of customization for maps for a specific museum
- Map editing and deleting features
- Simple user interface for designing and viewing a map with multiple floors
- Simple administrative feature implementation

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1. Home Page



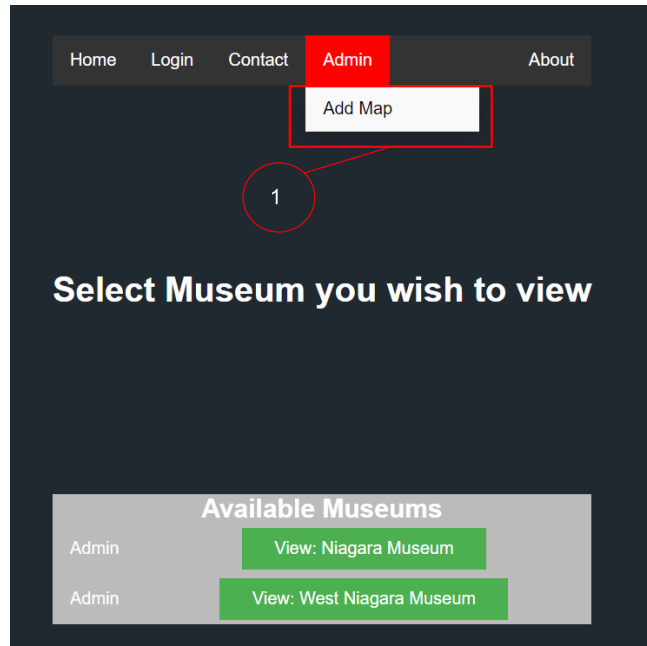
The home page is the main page a user finds themselves on when accessing the program, from here a user can access the map data present in the system, add a new map, edit or delete an existing map, or navigate to any of the additional pages available to the user.

1. Navigation bar allows traversal between the different pages offered by the program.
2. Buttons display the museums currently available in the programs Database.
3. Button that allows a user to view the map data stored in the database.
4. Administrative buttons allowing the user to add a map or edit/delete an existing map

2. Adding a Map (admin)

Our system offers an impressive feature wherein a user may upload their map information into the system, this system's map upload functionality has a simple interface that allows a user with even a low level of computer knowledge to upload their map information into the system without much difficulty.

2.1 Starting the process



To start the process of uploading a map to the interactive map system, a user must access the system and access the admin function in the navigation bar and click the “Add Map” button.

1. The “Add Map” button located in the navigation bar

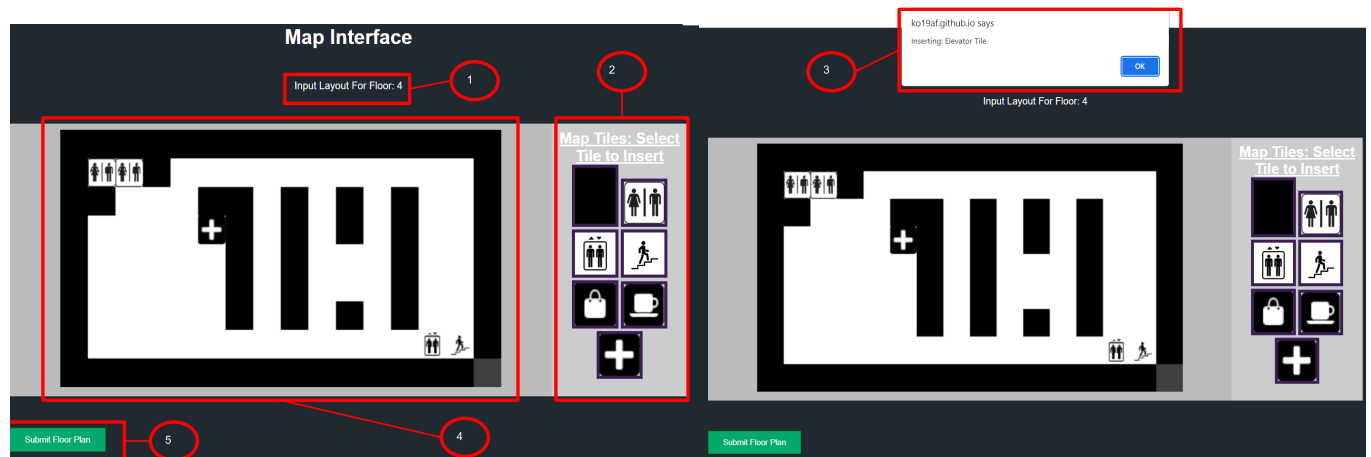
2.2 Designate Museum Name & Number of floors

A screenshot of a web application's form titled 'Enter Museum Name and Number of Floors'. The form is set against a dark blue background. It contains two input fields: 'Enter Museum Name:' with the text 'test' and 'Enter Number of Floors:' with the number '4'. Below these fields is a green button labeled 'Next'. A red circle with the number '1' is connected by a red line to the 'Enter Museum Name:' input field. Another red circle with the number '2' is connected by a red line to the 'Next' button. The navigation bar at the top includes links for Home, Login, Contact, and About.

Once the user has begun the map upload process, they move to the first page in the process, where the user designates the name of their museum and the number of floors in the museum.

1. Input fields where the user designates the name and number of floors in the museum.
 - a. A user cannot use the name of a museum that already exists.
 - b. A user cannot leave the fields blank.
 - c. A user cannot enter a floor number less than one (1).
 - d. A user cannot enter a floor number greater than five (5).
 - e. Attempting any of these actions will elicit a prompt from the system designating the problem.
2. Button that moves the process to the next stage once the user has entered the desired museum name and number of floors, and these entries are valid.

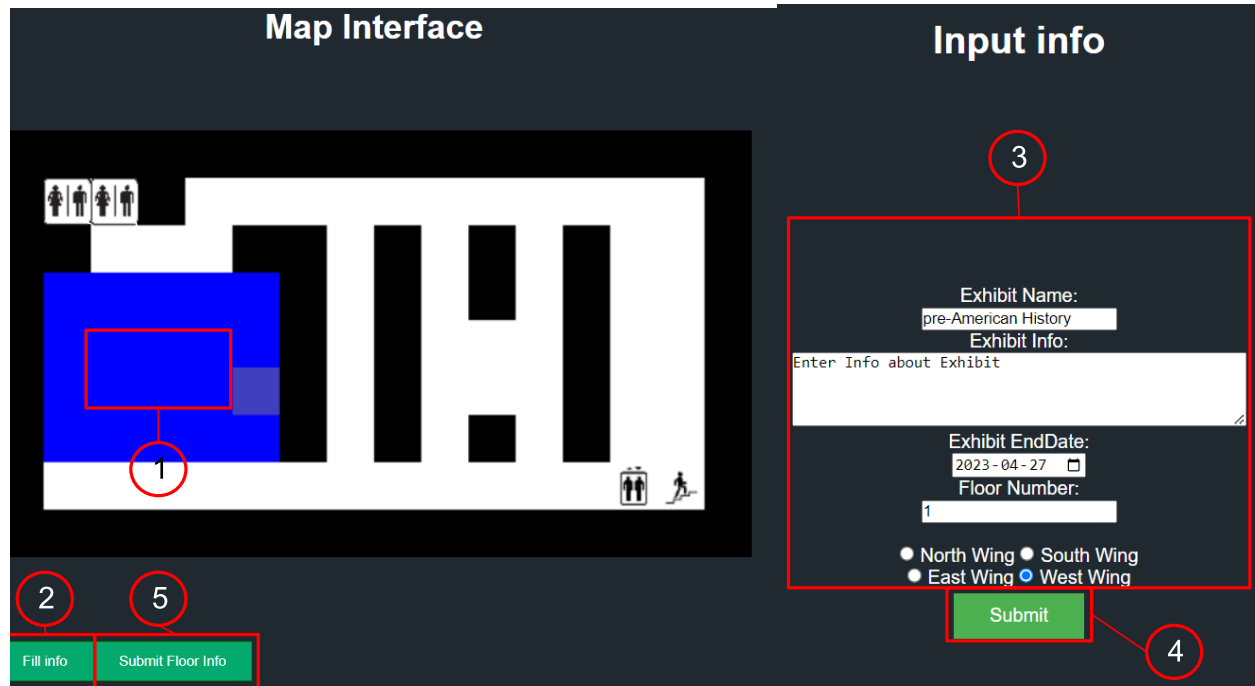
2.3 Enter the Floor Layout



Once the user has designated the name and number of floors in the museum map they are designing, they move to the next phase, which involves inputting the layout of one of the floors in the museum.

1. Prompt designating which floor the user is currently designing the layout for.
2. Clickable images showing the types of tiles a user can insert into their map to indicate where certain points of interest are located.
 - a. By clicking the image it will swap the tile being inserted into the map.
3. A prompt alerting the user which tile they have selected from the list of tiles available.
4. An interactive preview of the floor layout the user is designing, giving the user a visualization of the floor layout they are loading into the map.
5. Button used to signify the user is satisfied with the floor layout, and is ready to move to the next stage.

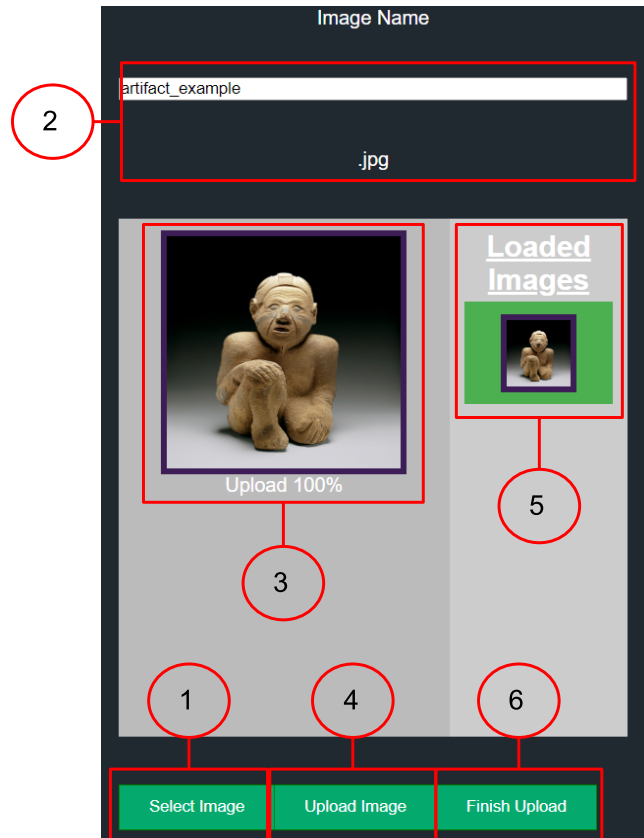
2.4 Enter Floor Information



Once the user has inputted the layout for the floor, the next phase begins, which involves selecting the tiles in the map and inputting the information corresponding to those map tiles.

1. The interface operates the same as the previous, as all a user has to do is click on the tiles they wish to add information to, and the selected tiles will change to the color blue, to deselect a tile, re-click a blue tile and it will revert to its original state.
 - a. A user cannot select a wall tile, any attempt will cause the system to display a prompt telling the user they are committing an illegal action.
2. Once tiles are selected click the “Fill Info” button to move to the form for designating the information associated with those tiles.
 - a. The user cannot fill out information if no tiles have been selected, this will elicit a prompt from the system telling the user they are performing an illegal action.
3. The page where the user fills out the information for the selected map tiles, there will be a series of fields that the user must fill out.
4. The “Submit” button is used to tie the information designated in the form to the tiles selected in the previous page, after it has done this it will take the user back to the tile selection page.
5. The “Submit Floor Info” button moves the user to the next phase in the process once they have filled all the tiles on the floor with the desired information.
 - a. Not all tiles need to be filled out to move to next stage

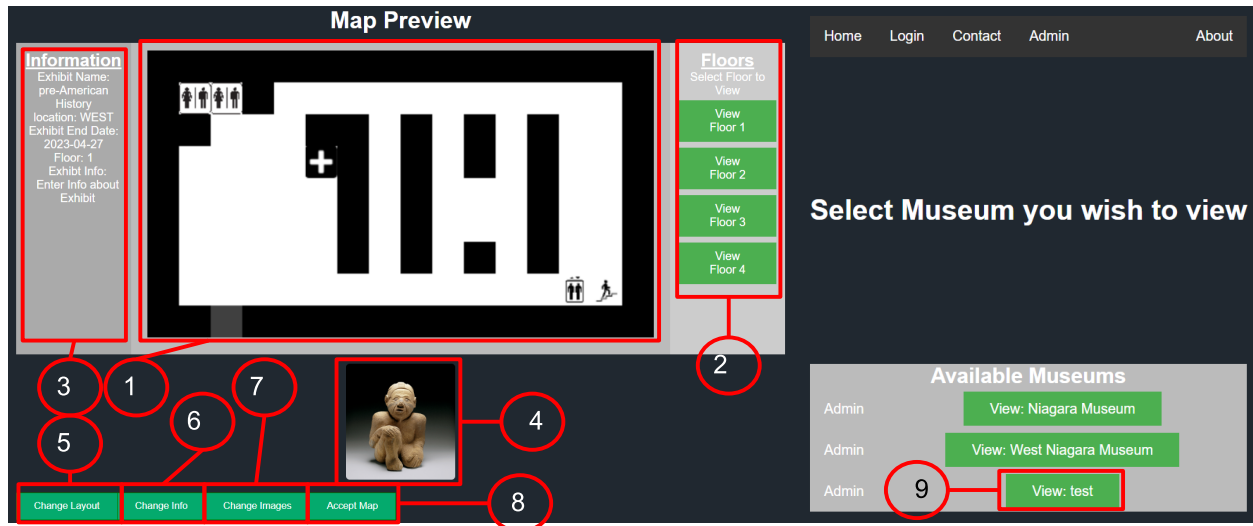
2.5 Enter Floor Images



Once the information for the floor is uploaded, the final phase of the floor creation process begins, where the user uploads the images associated with the floor, currently under construction, for the museum map.

1. The “Select Image” button allows the user to select images from their device to add to the floors image gallery.
2. This text box displays the name of the image a user has selected from their device.
3. This area displays the image selected by the user from their device, allowing the user to verify if the image selected is the correct image from their device.
4. The “Upload Image” button allows the user to save their selected image to the map and Firebase storage so the program can access the image and display it in the floors image gallery.
5. This area displays images added to this floors image gallery, by clicking on the image displayed the user can remove that image from the floors image data.
6. The “Finish upload” button moves the user to the next phase in the process, once they have finished uploading the desired image data.
 - a. If the process is on the last floor it will take the user to the map preview page
 - b. If it is not the last floor then the program will restart at the floor layout phase so the user can input the information for the next floor in the map.

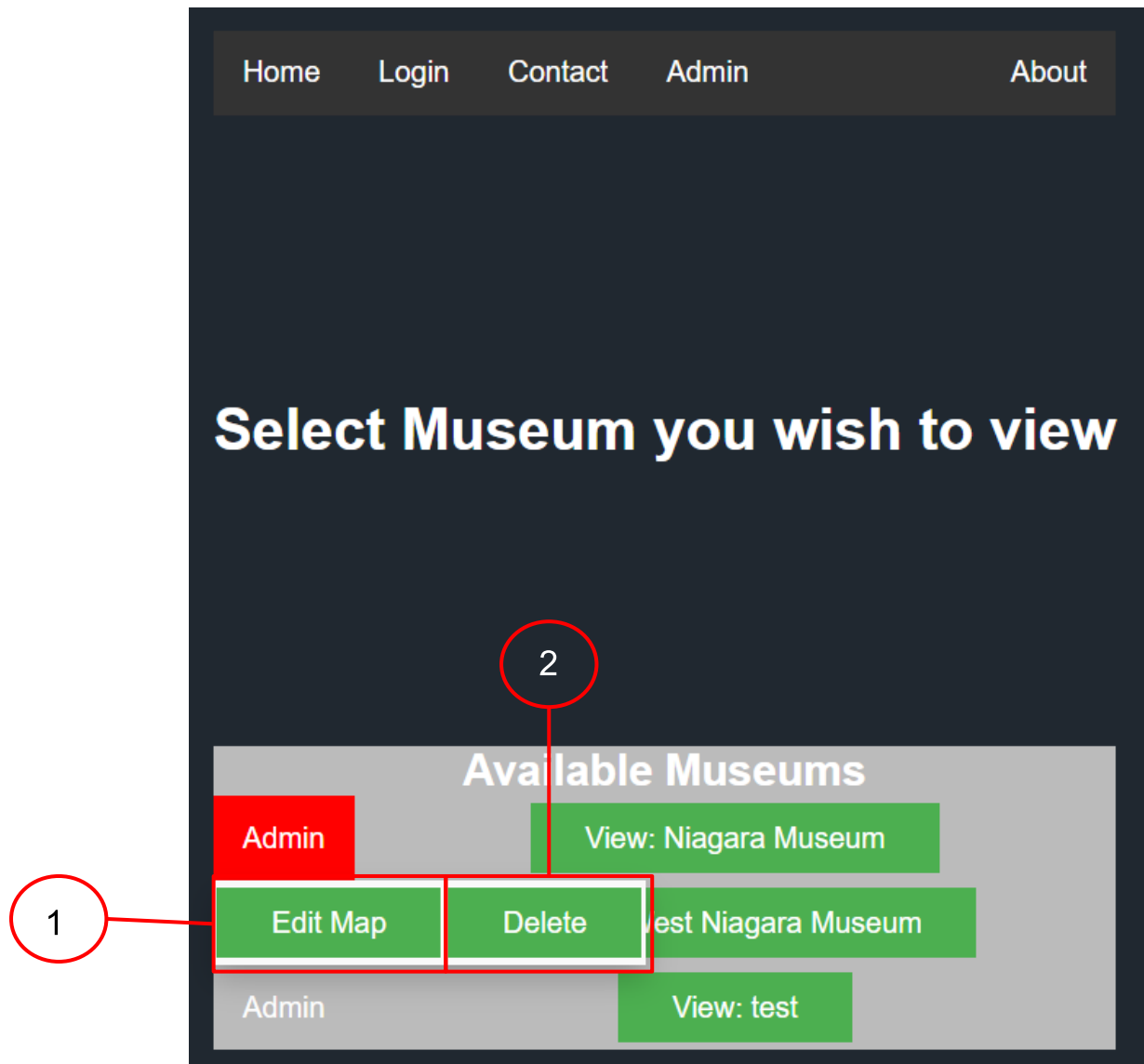
2.6 Map Previewer



Once the user has finished inputting the initial map, they are taken to the map preview page, where they see how their map will be displayed to users using the system.

1. This shows the map layout for the floor selected, it is fully interactable, as a user can touch a tile on the map, and if information is associated with that tile, it is displayed.
2. This is the navigator that allows a user to switch between different floors in the museum
3. This is the section of the display that shows the information associated with a selected tile.
4. The space below the map shows the image gallery for the floor, a user can click on the image and will blow up the image to make it easier to view.
5. The “Change Layout” button, allows the user to reset the floor they are looking at and change its layout.
 - a. By pressing this button the user must re-enter all the information and images as it resets the entire floor info
6. The “Change Info” button allows the user to change the text information associated with the tiles in the map.
 - a. Note. By pressing this button it resets both the floor info and the images tied to the floor, so the image data must be re-entered
7. The “Change Images” button allows a user to change the images in the floors image gallery.
8. The “Accept Map” button saves the map the user has created, uploading the data to the Firebase realtime database to be used by the program at any time.
9. Shows that the map has been added to the systems database and the new map can now be viewed by users of the system, as well as edited or deleted.

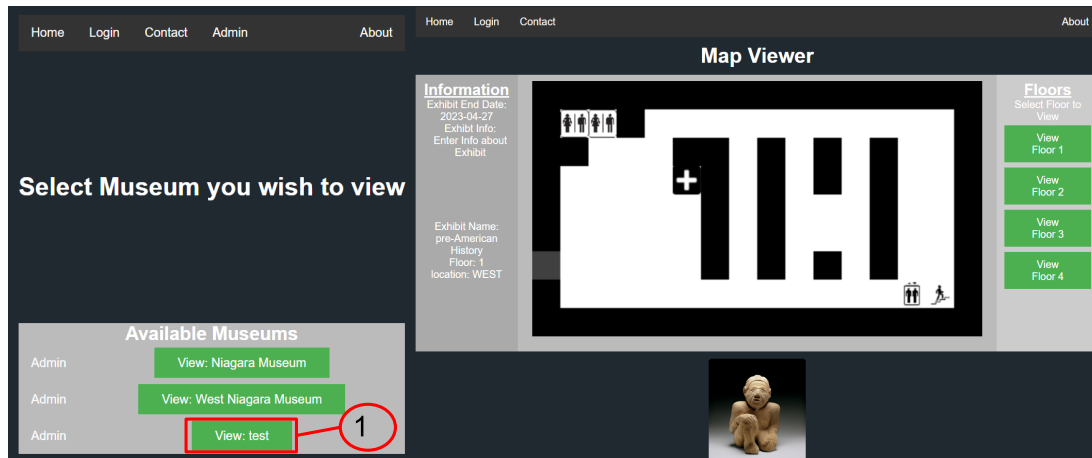
3. Edit/Delete A Map (admin)



The Interactive map system also allows administrative functions for editing or deleting a map stored in the system's database, this allows for easy updating of map information in case of an exhibit being added or removed or renovations that have occurred on a floor of the museum, or if the museum is closing down, it is a simple manner to delete its data altogether.

1. To edit a map hover over the "Admin" button next to the museum you wish to edit, then select the "Edit Map" button that appears to change the information associated with that map
2. To delete a map hover over the "Admin" button and select the "Delete" button that appears to remove the map data from the system

4. View A Map



1. To view a map simply click on the button with the museum name wished to be viewed and the program will open the map viewer, here the user can view the individual floors in the museum, images associated with a floor, points of interest on the floor, and by clicking on the tiles they can view any information tied to that section of the floor.