Document layout:

This document contains 3 sections:

- Future Recommended Collection Management System Timeline:
  - This section focuses on the team's overall assessment of a collection management future in the Museo
- Researched Collection Management Systems:
  - This section provides information and rational on the considerations the team made looking for system to fit the needs of the Museo
- Supporting the Implemented System:
  - This section provides links to online resources to enable the Museo to begin using the software that was installed on the archivist computer.

Future Recommended Collection Management System Timeline:

Now: **Microsoft Excel sheet and record books**	**One of the core issues observed with the current system is searchability of the archive. In addition to the closed nature of the collection to museum staff / world.**
Near Future: **Local Installation**	**The team recommends implementing the provided Omeka S system into the archival / searching workflow. Steps outlining a transition to a Collection management software system can be found at this link. The Spectrum 5.0 standard provides recommendations on how to do the 9 parts of collection archiving (data entry, loans, inventory, location tracking ets.)**
Future:	**Build up a case to the municipality to try to secure funding to:** - **Move the Omeka S files to a cloud hosting platform (there are a few with ranging costs that fit different storage and computer power needs) some offering technical support in the migration process** **or** - **Move to a closed source system to handle the technology side of the CMS platform** **This move would allow** - **public internet access to the collection and external party discovery of the collection** - **system to be hosted in a place where the data will be more secure from weather.** - **The Museo could start collecting local stories and historical information through the CMS to preserve people stories**

Further Future:	**The consideration of moving to a larger hosted platform like Google art and culture or other big platform initiatives. This would allow:** - **Lots of exposure to the Collection and the history of Puerto Rico on a global stage** - **The creation of digital exhibitions that get promoted** - **Increased interest in the intuition.**
General Future:	**Many peer institutions are moving in the direction of "democratizing" their collections. Meaning giving the public access to explore and curate them as they like. This is a common sentiment around this technology going forward in the digital age.** **The team believes that the Museo has the ability to get to this point having a few critical conversations:** - **The implications of general access to the collection and how it relates to usage writes and how the content should be "water marked" or shared** - **What personal has access to what fields and kinds of data and how to maintain this confidentiality.** - **What online access to their collection could mean for the museums image and place among peer institutions**

With this future timeline the team considered different options that would suit the present needs and limitations of the Museo.

Researched Collection Management Systems:

CMS Rational / Discovered Requirements:

Based on conversations with the educational team, the archivist, the director and based on prior background research, the team set out to identify core features that should be considered when looking into a modern digital collection management system. This criterion was abridged from the Canadian Heritage Information Network checklist of 300 criteria. These were then narrowed down to the following priorities: (Full checklist)

- **Simple interface / intuitive**
- **Straight forward data entry**
- **Searchability / Visual discovery**
- **Confidentiality of fields and documents**
- **Control on what is displayed to outside users**
- **Support for uploaded media / documents**
- **Export into a CSV / spreadsheet**

- **Export into a physically printable file**
- **Track locations of works and pieces**
- **Cost / Funding considerations**
- **Speed up the discovery and curation process**

We looked a lot of different collection management strategies and systems going over the criteria above. Then evaluating them based on these criteria as follows. It is important for the Museo to consider the nature of each system as it pertains its future support.

Open Source Software:

Two open-source systems, Omeka S and Collective Access were explored. Open-source systems are developed by community members and made available to run for free on your own systems. The cost of the system then comes with upgrading the computers or choosing to run the software on external "cloud" hosted servers instead and the human time and resources needed to maintain the system.

Closed Source Software:

Two closed source systems, The Museum System (TMS) and E-museum were also considered. In a closed source CMS system, you would pay the software company to run, manage and maintain the system offsite. For that reason these systems are expensive upfront because they provide all of the technical resource to run a CMS for an institution.

Content System	**+Pros/-Cons**
Omeka S	**+Web based** **+Simplified Interface** **+Searchability** **+Expandability with modules** **+Open Source** **-No print option**
Collective Access	**+Web based** **+Can run Locally** **+Open Source** **-Requires separate framework to display elements** **-Have to embed features** **-Complex Interface** **-No user accounts / permission control**
Google Art and Culture	**+High Quality** **+Google does most of the work** **+Reliable** **+Built in audience**

	-Control of the collection / posting **-Requires application process and to be accepted** **-Asks for website in application** **-**
The Museum System	**+Professional system** **+Has team to work on your case** **+Other local museums us the system** **+Well known among large scale museums** **-Expensive** **-Requires contact with sales team** **-Functionality is similar**
E-Museum	**+Professional system** **+Has team to work on your case** **+Other local museums us the system** **+Well known among large scale museums** **-Expensive** **-Requires contact with sales team** **-Functionality is similar**

Chosen Technology For Todays Observed Needs/ Features:

After considering these options the team decided on the Omeka S system for a near future implementation for a few reasons.

1) The Museo has the option to first run the software on their archivist computer before choosing to migrate to the cloud in the future
2) It satisfies all the expressed criteria for the Museo except the ability to print off documents to physical paper
3) It will allow them to migrate to other platforms in the future if they have different future needs.

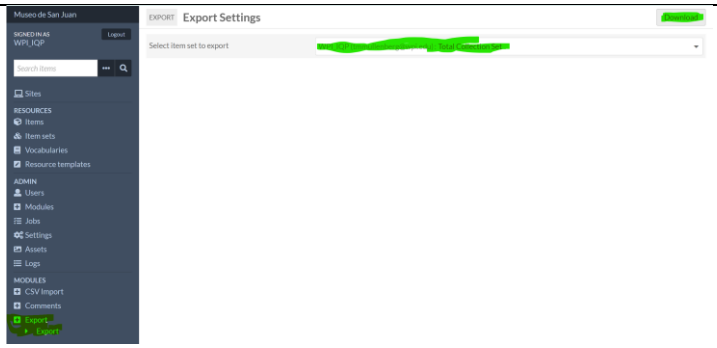
The team recognizes that the needs of the Museo might change over time and with future resource and sees that a closed source system that provides the hosting and technical resources would fit the future needs better especially in the cases of vulnerability for the Museos archives and data. However, in the short term the implementation of an Omeka S instance was evaluated to be useful for the goals; searchability, discoverability, etc; of the Museo.

Supporting the Implemented System:

The team first prototyped an Omeka S system, importing the spreadsheet catalogued items into the system. After verification that the software was working, it was then transferred over the archivist computer. Below are web resources outlining how to use the software and how to support the implementation of the system.

Below are resources outlining Omeka S and how to use its core functions.

Topic	Link	Explanation
Omeka S User guide	https://omeka.org/s/docs/user-manual/	This is all of the documentation on the Omeka S system
General Omkea S	**https://omeka.org/s/tour/**	On the Omeka S homepage they have a range of tutorials. This is a brief overview about the user interface and how objects relate to one another.
External Facing 'Cites' built with Omeka S	https://omeka.org/s/directory/	These are example "sites" that have been created by other institutions that use the Omeka S platform. This can be used to show what the platform (Once hooked to the internet) can be capable of.
Adding items	https://utas.libguides.com/Exhibit-OmekaS/add-items	Here is a written guide and of how to create items and edit their metadata in Omeka S
Creating item sets (curations)	https://utas.libguides.com/Exhibit-OmekaS/item-set-site-pool	This overviews how to make a set of items.
Site Creation	https://utas.libguides.com/Exhibit-OmekaS/add-content	This shows how to add and modify content onto an Omeka S site

Export Item set to CSV		If you want to export the collection to a CSV (That can be opened in Excel) Create an item set with said items go to "Export" under modules and click download!

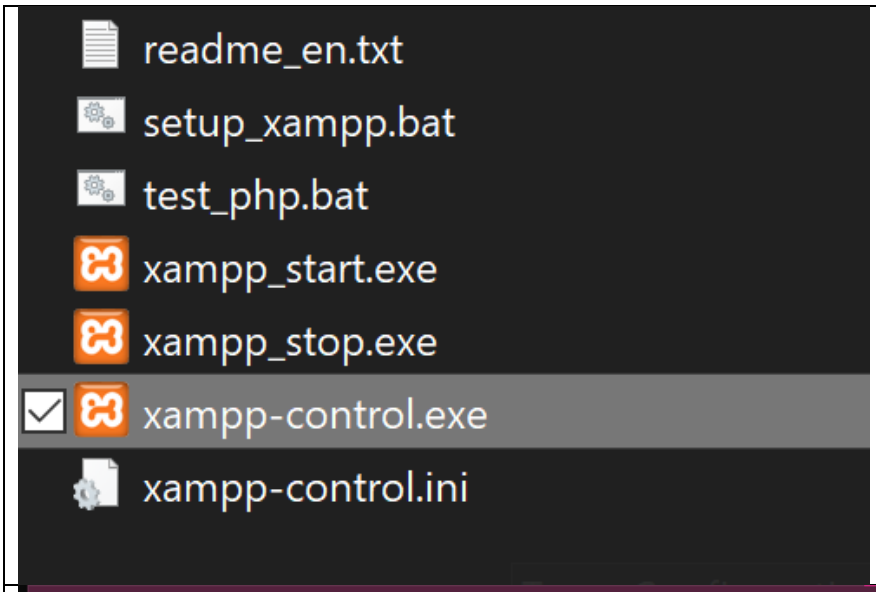
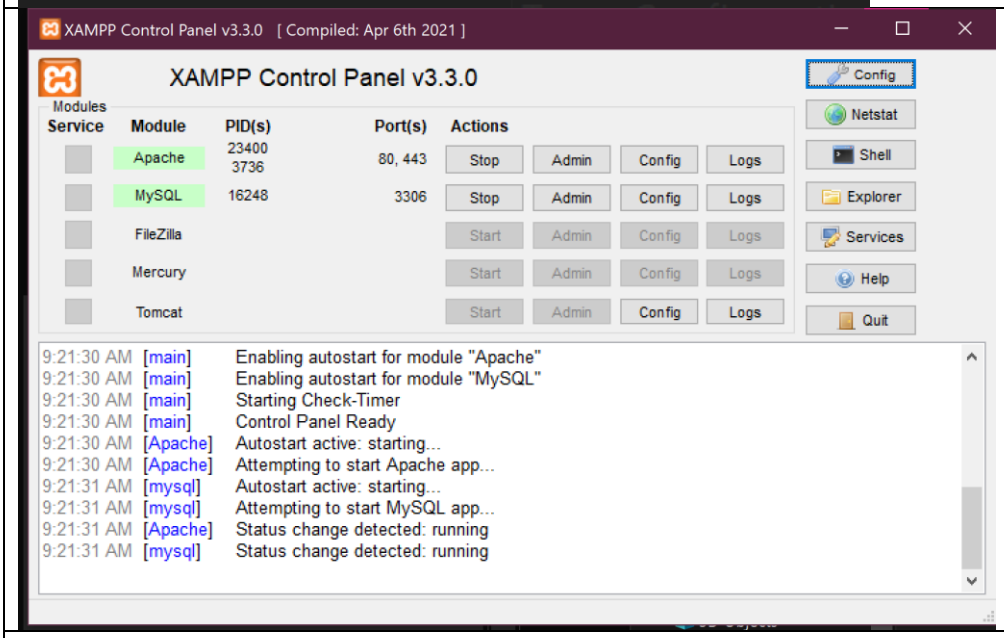
In Omkea S you can configure different user accounts for different levels. This is the explanation of the built-in levels and what features they allow a user to access in the system.

Configured Accounts	Levels
Username: Admin@Admin.com Password: password123	Global Administrator: This account has permissions to edit everything in the system and see everything in the system
Account level explanation	**NOTE: ONLY USERS WITH "GLOBAL ADMIN" ACCOUNTS WILL BE ABLE TO ACCESS AND SEE HIDDEN FIELDS** **Global Admin (Archivist & Director)** • Full privileges (create, edit, delete) of item, item sets, media, resource templates, site pages, sites, and users. • Full privileges for modules - install, activate, configure. • Search, read, create, and delete privileges for Vocabularies **Supervisor** • Full privileges (create, edit, delete) of item, item sets, media, resource templates, site pages, sites, and users. • Browse-only privileges for modules in the module tab. Can interact with active modules where appropriate. • Search, read, and create privileges for Vocabularies (cannot delete) **Editor (The Education Team)** • Full privileges (create, edit, delete) of item, item sets, media, resource templates, and site pages • Can search, read, and create sites and users, and edit or delete sites they own. Can only delete their own user profile. • Search and read only privileges for vocabularies.

	• No privileges for modules **Reviewer** • Can search, read, create, and edit all items, item sets, and media. Can only delete those items, item sets, and media which they have created. • Can be added to a site at the Creator or Manager levels, which enables them to search, read, create, edit, and delete site pages. If a Reviewer has not beed added as a site user, they will have read-only access to that site's content. • Search and read only privileges for vocabularies and resource templates. • No privileges for modules **Author (Other Museum Staff)** • Can search, read, and create items, item sets, and media. Can only edit or delete content which the user has created. • Can be added to a site at the Creator or Manager levels, which enables them to search, read, create, edit, and delete site pages. If a Reviewer has not beed added as a site user, they will have read-only access to that site's content. • Search and read only privileges for vocabularies and sites. • No privileges for modules **Researcher (External Users)** • Search and read-only privileges for all content, sites, and users. • No privileges for modules

Running the Omeka S Instillation on the archivists Computer:

To run Omeka S web platform on a local computer we used a program named Xampp to propagate the webserver as well as the database (mySQL) server that is then used to run the CMS system. Below are the steps to run locally on the Museo's archivist computer.

	**Find and run the "Xampp-Control" program on the task bar or in the file location (c:/xampp)**
	**The text for "Apache" and "mySQL" should show up in green if no issues occur. If issues occur try rebooting the computer and trying again**

For running the website / web server for Omeka S another piece of software called "Xampp" was used. This provides the database "mySQL" server and the web "Apache" server for it to run on.

Technical Information:

Software's being used:	Reasoning:
Xampp v 3.30 – April 6th, 2021 Information: https://www.apachefriends.org/index.html	This software runs the Apache webserver and the mySQL database servers locally to then run the instillation of Omeka S locally on the computer / network
Omeka S version 3.1.1	This is the php server and software that runs the content management system
An Internet Browser	This is used to access the locally running Content management system by typing in "localhost" or "127.0.0.1" into the search bar. To access the server from other computers the network IP address will have to be typed in this will look like 192.168.8.XXX where XXX is equal to the last 3 digits assigned by the Wi-Fi router.