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As my final individual project, I set out to build a data model and database that could be incorporated into my thesis project. For my thesis, I will be creating a website that will contain a registry of collections of African American home movies across the United States. This registry will point researchers to repositories that have this sort of material in their possession and describe the content and breadth of each collection (where possible). In order to accomplish this, I decided to learn MySQL Workbench to build the data model and MySQL Server build the database. While I encountered many hurdles and did not exactly accomplish what I set out to, I did gain a deeper understanding of SQL and designing relational databases.

The portrayal of African Americans in film has been much debated since the advent of the moving image. One of which being that African-Americans must be owners of media in order to be well represented in the media. There is no better demonstration of this than what is depicted in the home movies shot by African Americans during the heyday of the 8mm and Super 8mm formats. These home movies are historically significant and should be seen as a preservation priority because they are a moving image record of African-American home and social life at different points in time, and help provide a broader depiction of African American life. Their scattered existence is just one of the reasons a centralized database is needed to help foster access to these everyday depictions of minority communities.

By researching the film and video holdings of various archives, libraries and museums, I will produce a comprehensive online database that covers the scope and content of these home movie collections. Initial research began online, but has since then branched out to include conversations with other moving image archivists and blind inquiries with various museums, archives and libraries. Some of the metadata for each title in these collections will include the repository name, repository location, collection name, title, extent of each collection, year, format, length (in feet), physical condition, and type of access available (digitized or not). Item level metadata will only be included in cases where the parent repository has provided such information. The database will be free and accessible to all via a website detailing the purpose of this data and it's historical and cultural significance. The mission of this online database will be to streamline access to African-American home movie collections that are available to researchers, scholars and enthusiasts; but are generally unknown outside of the archival community. I believe this resource will be of great use to both documentary and feature filmmakers, students of all ages, other moving image archivists, researchers, scholars and enthusiasts.

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My first step in data modeling was to sit down and plan my database schema, or how the database's tables and columns will ultimately be arranged and relate to one another. This was important, because without a plan, the structure of data can change as new rules and features are added to make up for past mistakes. In previous brainstorming sessions, I already decided that there would be three tables that would relate to one another as sort of subsequent tables. These tables are Repositories, Collections and Home Movies. I chose these three tables because I knew early on that the three categories would fully encompass the data I would like the user to see while searching through the database. For example, a researcher would visit the website, click on the tab containing the registry and be presented with the option to browse by repository, collection or individual home movies. Each search category or table would have its own set of fields as follows:

REPOSITORY	COLLECTION	HOME MOVIE
ID	ID	ID
Repository_Name	Collection_Name	Content_Notes
Address_1	Scope_and_Content	Color
Address_2	Extent	Year
City	Date_Acquired	Sound
State	Collection_Status	Length
Zip_Code	Repository_ID	Format
Repository_Website	Collection_Website	Physical_Condition
Repository_Phone	Contact_Name	Digitized?
Repository_Email	Contact_Phone	Online_Access
	Contact_Email	Copyright_Status
		Collection_ID
		Repository_ID

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Once I decided on the tables and their respective fields, I downloaded MySQL Workbench so I could use it to create a data model for the prospective database. After watching a few online tutorials, I found it fairly easy to create a data model using the MySQL Workbench software.
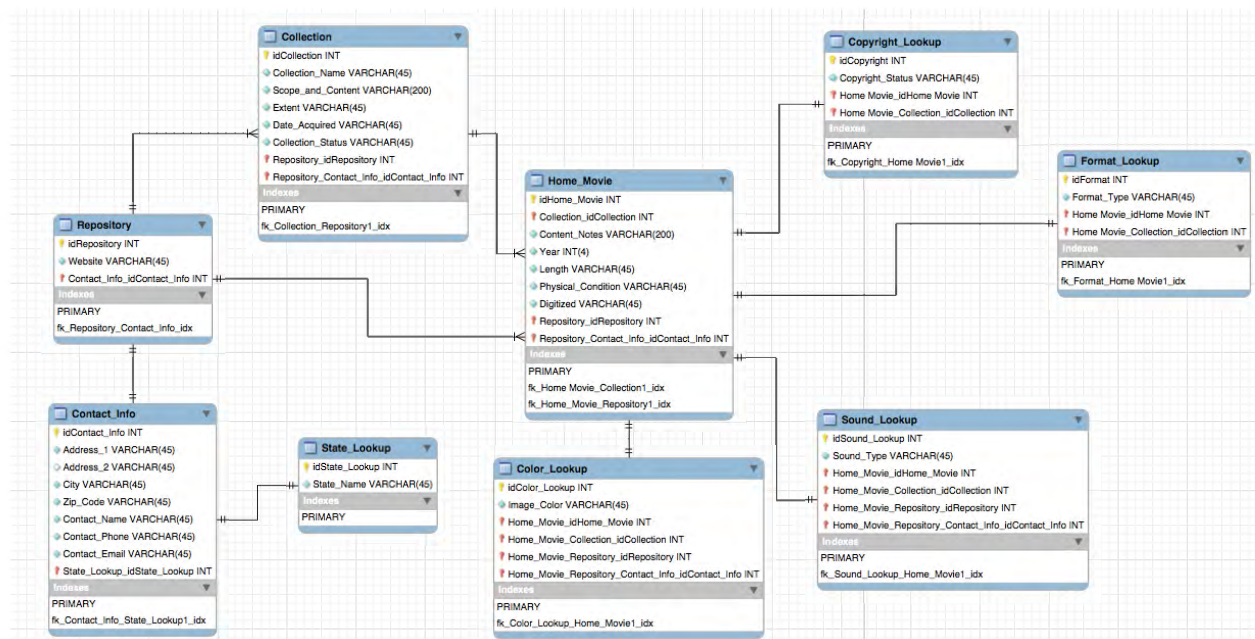
Data Model created in MySQL Workbench

However, it was not very clear what this data model would look like as an actual database, because I did not have MySQL Server installed and setup. Even after after much research, it still unclear how MySQL Workbench and MySQL Server worked together. Even further out of reach, was how MySQL would work with a web host to make this relational database visible to others.

Earlier in the semester, I purchased the domain name, aahma.org, and decided to choose a host once I became a bit more familiar with how to use MySQL and actually implement it on a website. In order to learn what exactly MySQL was, what it could do and what it looked like; I turned to various tutorials at lynda.com to gain a better understanding. These tutorials included:

1. "Foundations of Programming: Databases" with Simon Allardice
2. "MySQL Essential Training" with Bill Weinman
3. "Installing Apache, MySQL and PHP" with David Gassner

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"MySQL Essential Training" with Bill Weinman was by far the most helpful and easiest to understand. Because I was unable to setup MySQL server, Weinman's tutorial provided the perfect opportunity to practice SQL within a controlled environment. As part of the tutorial, I downloaded SID (SQL Interactive Demonstrator) and practiced basic syntax such as using the SELECT statement, inserting rows, updating rows, deleting rows, and creating databases, tables and columns.
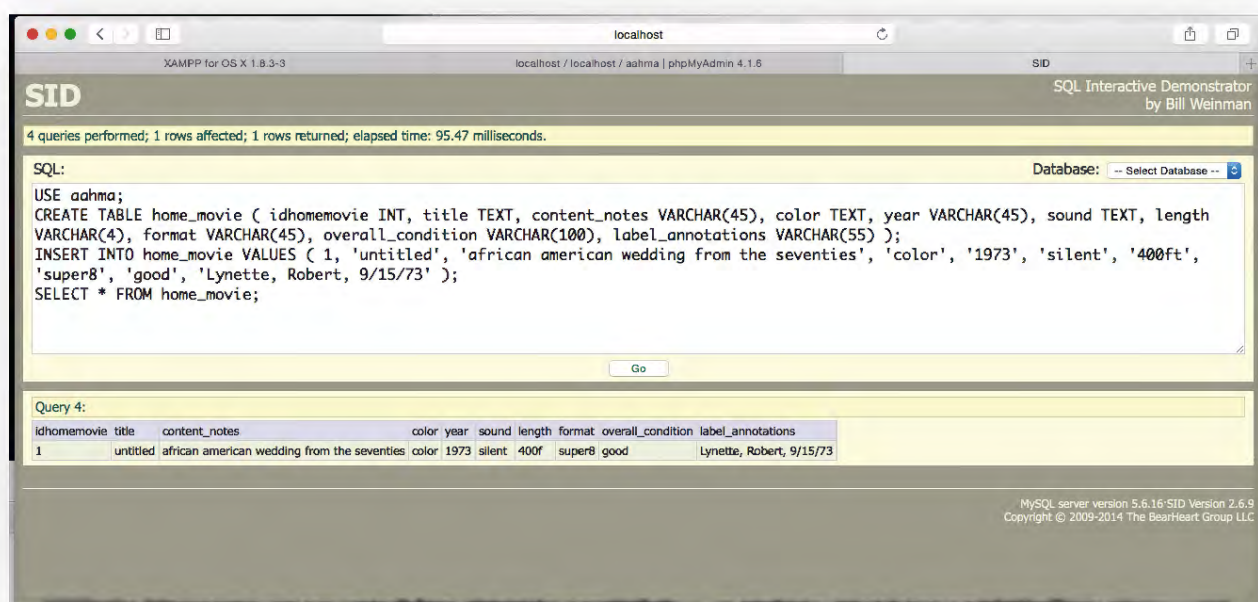

Created 'home movie' table writing SQL in SID

Through this tutorial, I also learned what phpMyAdmin was; something that would end up being an instrumental tool once I signed up for a web hosting service. phpMyAdmin is a free and open source "...*tool written in PHP, intended to handle the administration of MySQL over the web.* phpMyAdmin supports a wide range of operations on MySQL and can be used to carry out frequently used operations such as managing databases, tables, columns, relations, indexes users, and permissions; to name a few[1]. After creating aahma in SID, I was able to see that the database was listed on the lefthand panel of phpMyAdmin. As I began to browse around, I realized that I could use phpMyAdmin to create the same databases, tables and columns that I created using

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[1] "Bringing MySQL to the Web." *PhpMyAdmin*. N.p., n.d. Web. 7 Dec. 2014.

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SQL in SID. So, in phpMyAdmin, I created my three tables and entered some test data so I would have some data to play around with in my web host.
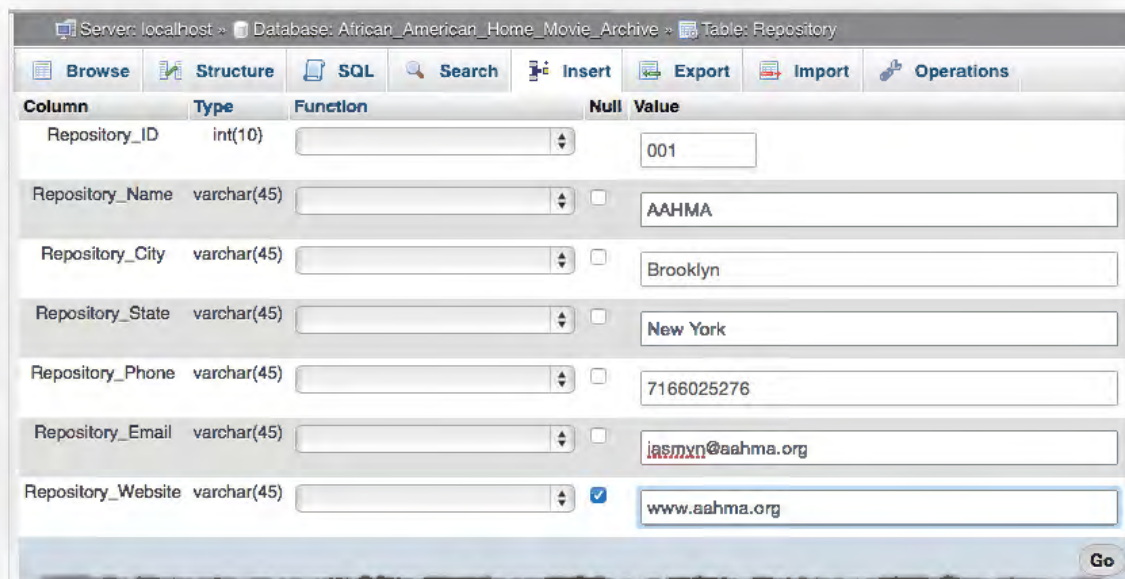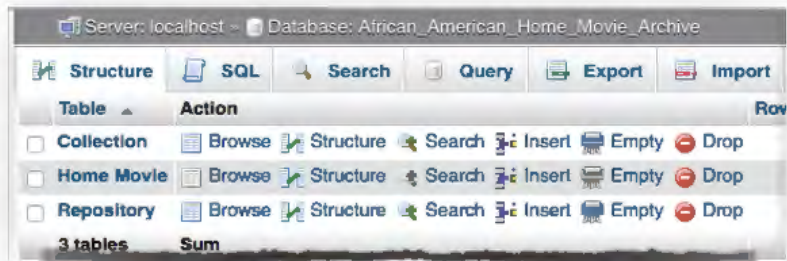

Tables created in phpMyAdmin

So, in essence, what is MySQL? MySQL is merely a relational database management system that is based on SQL. MySQL uses a client server model, meaning the database runs on a server and various users access data stored in the database over a network. phpMyAdmin is the top layer that manages MySQL on the web.

Now that I had a better understanding of MySQL, phpMyAdmin and how they work together to form relational databases for the web; I signed up for a web hosting service that

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would allow me to work with MySQL. I ultimately decided to go with GoDaddy and attempted
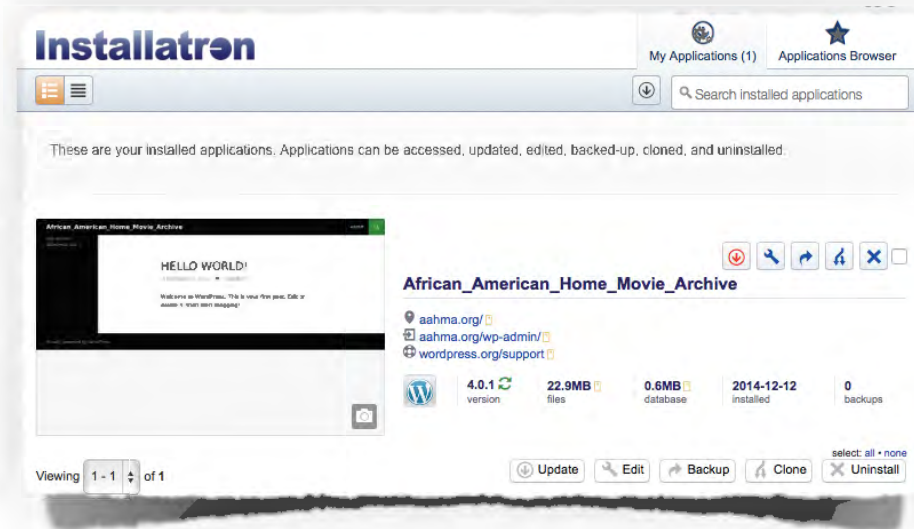
Wordpress Application in GoDaddy c-panel

to launch a database via the Wordpress application.

Once I installed the Wordpress application, I logged into the admin panel started playing about with a number of database plugins such as Exec-PHP, Participants Database and wpDataTables. The most promising of them all was wpDataTables, however, it is still not able to achieve the look or data relationships I would like to have between the three tables. I am currently trying to figure out how to get the database I have created in phpMyAdmin to display in Wordpress.

Throughout this process, I have learned a lot about what it takes to launch a fully functional database on the web. I think that with continued work, dedication and time, I will be able to build an online database that will truly reflect my vision for the African American Home Movie Archive registry. My two main concerns are functionality and user ability. If these two goals are met, I believe the database will be a success and people will continue to use it for years to come. Over the winter, I will continue to work with MySQL and phpMyAdmin on my website. I am hoping to have something to launch by the end of January.

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       the ACM* 13.6 (1970): 377-87. Web. 8 Dec. 2014.

[4] Weinman, Bill. "MySQL Essential Training." *Lynda.com*. N.p., n.d. Web. 3 Dec. 2014.