CAPSTONE I PROJECT REPORT

The United States County Courthouse Project

Sponsored By:
UALR Capstone Course under the tutelage of Dr. Elizabeth Pierce and Professor Bruce Bauer.

Contributing Team Members:
Roger House
Mueez Ramzan
Jaylon Jones

Contact Info:
Roger House rchouse@ualr.edu
Mueez Ramzan mxramzan@ualr.edu
Jaylon Jones jljones@ualr.edu

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Meet Our Client and the County Courthouse Project

The United States County Courthouse Project has been a decade's long passion of our client Mr. Jerry Fager of Little Rock, AR. As much of a hobby as it is a task, Mr. Fager has travelled extensively around the country collecting photos, facts and interesting history about the various courthouses contained within the states. As our client he has tasked us with the charge of creating a website to display all the various courthouses and their data so that others may partake of his mission and learn more about the courthouses located here in the US.

I personally chose this project because I saw it as an opportunity to combine two things that I care about a great deal. Namely, learning about new places and things and also building on my tech skills by refreshing myself and learning new techniques in regards to coding and webpage design. I also think of this as providing a service and as a charitable act that not only will deliver the results our client requested but also create an accurate and enjoyable experience for people around the world that view the site.

Also on this project are my team members Mueez Ramzan and Jaylon Jones who chose this project of their own volition and motivations and we have worked together to piece together this task and make it all come together.

The county courthouse project is a non-profit project and is being spearheaded by the UALR Information Science Departments, Capstone Course. And our goal is to foremost create a website to contain and display the data provided by our client and to make sure our client is able to create, add and modify the site as he sees fit and fully understand the sites functions, abilities and limitations.

Mr. Fager will have complete control and authority over the site and its content. He does not have any employees or workers that assist with this project though his wife o does tend to lend him help here and there.   Mr. Fager graciously supplied our team with a flash drive that contained all the data we needed for the website.

This hard work of Mr. Fager dates back to the 70's and is a continuing work for him and now his wife. Notably he has accomplished this task on his own over many years and the only challenges to the continued success of his project is restriction or an inability to travel. Mr. Fager is currently pursuing options to allow himself to field inquiries from the general public and broader internet community.

Brief Overview of Service

The information that was important to creating the site required that we look at a few options to guide us in the right direction. The most important thing was finding a website that offered us enough storage and functionality to build the site by including the photos of the various courthouses. We looked at several sites like Square Space, Wix and WordPress. For implementing the solution only the hosting sites storage space appeared to be of any issue. In general all we needed was access to a computer and an Internet connection.

Our team did in fact set up a time tracking site via Trello to keep tabs on the hours we spent on various stages of the project. Trello of course had its own learning curve and considering the load we had on us researching and implementing project deliverables most of us found it easier to log our hours through other and/or more familiar methods.

In order for our projects site to be easier to navigate we decided that we would implement drop down menus listing the counties by state and also have a map either accessible through a dynamic or a standalone page that may a or may not include tooltips or pop outs to further guide the user toward the information they are looking for.

Table of Contents

Charts, Figures and Diagrams

Project Challenges:

Some of the challenges we faced trying to implement the website for the county courthouse project was storage utilization on a web platform while simultaneously keeping the cost of the site hosting to a minimum.

For instance there are many webpage building sites that offer intuitive and a free means of building a webpage, such as Wix however if the site you are building incorporates a lot of data like that courthouse data. (approximately 20GB) then you will need to upgrade to a higher tier package that does require a monthly fee to use and maintain the site.

Our team tackled this issue by seeking out other website that offered more space even if it came at sacrifice of ease=of-use features. We also sought other programs to manage the data itself, for example Mueez looked into manipulating some of the photos to make them more uniform in shape or size. We did later decide that may not be the best option and that it could possibly interfere with our client s ability to add or adjust content.

Because of our think tank meetings we were able to figure out which plans would work and ones that offered the best digital solutions for creating the site.

Evaluating the Data:

What we did hope to accomplish by standardizing the photos though was to keep all pages structured. As it stands we will have a semi-structured site that will still accomplish our client's needs.

Our current work covers the adding of photos to the site and linking drop down menu items to their respective City/State/Courthouse. Each page will have to be checked for accuracy in regards to the photo before we add any of the textual data. This is just to ensure that no shifting or crowding of the text or photos happens. The type of technologies in use on project is simple on our teams end. Generally it involve uploading data to the host sight and determining the best positioning, color scheme and wording format for that data. The technology on the other end of the project, that is to say the host sites and its implementation is considerably more complex and out of the scope of our teams learning or need to know.

Client's Desired Future State:

With the issues I've described previously resolved what we would have for our client is a website that is accessible for any user that is looking for visual or textual information concerning county courthouses in any given state in the US.

The type of data on the site will change due to a number of reasons. A courthouse may burn down, be destroyed or decommissioned and repurposed. A courthouse may change locations or receive new information or historical facts. Our client will be responsible for updating and making the necessary changes to the site and he will do so via the website admin interface.

We don't see a change in the technology in the foreseeable future affecting the website. In fact we only perceive a faster and more improved version the site and site administration happening.

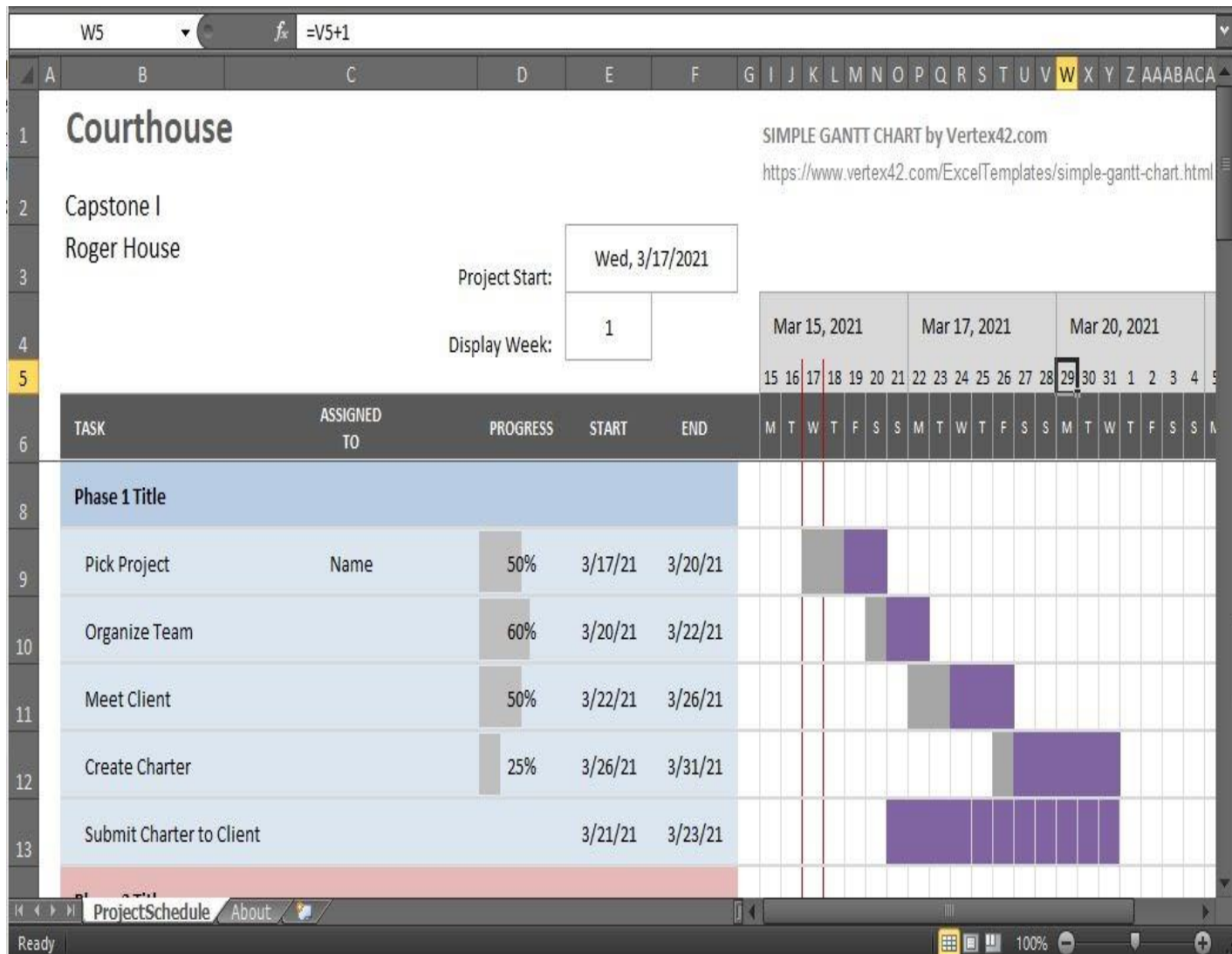**Analysis for Options getting Client to Future State:**

In order to get our client to their future state as admin for the county courthouse website we plan to firstly keep records of the steps we took to design the website. We also plan on creating a pamphlet or instruction guide that outline s the steps needed to view, access, update and perform other administrative duties to the website. In addition to these written documents, we also plan on discussing face-to-face with our client and going over the project, the website and the procedures needed to administer the site in detail. It is our goal to make sure that when we hand over the site to our client he is fully competent, comfortable and knowledgeable in his role as site owner and admin.

Design and Development of Work Performed:

The follow diagrams, charts and descriptions are meant to visual represent the work done on this project including time spent on key areas, meetings and individual sub-projects.
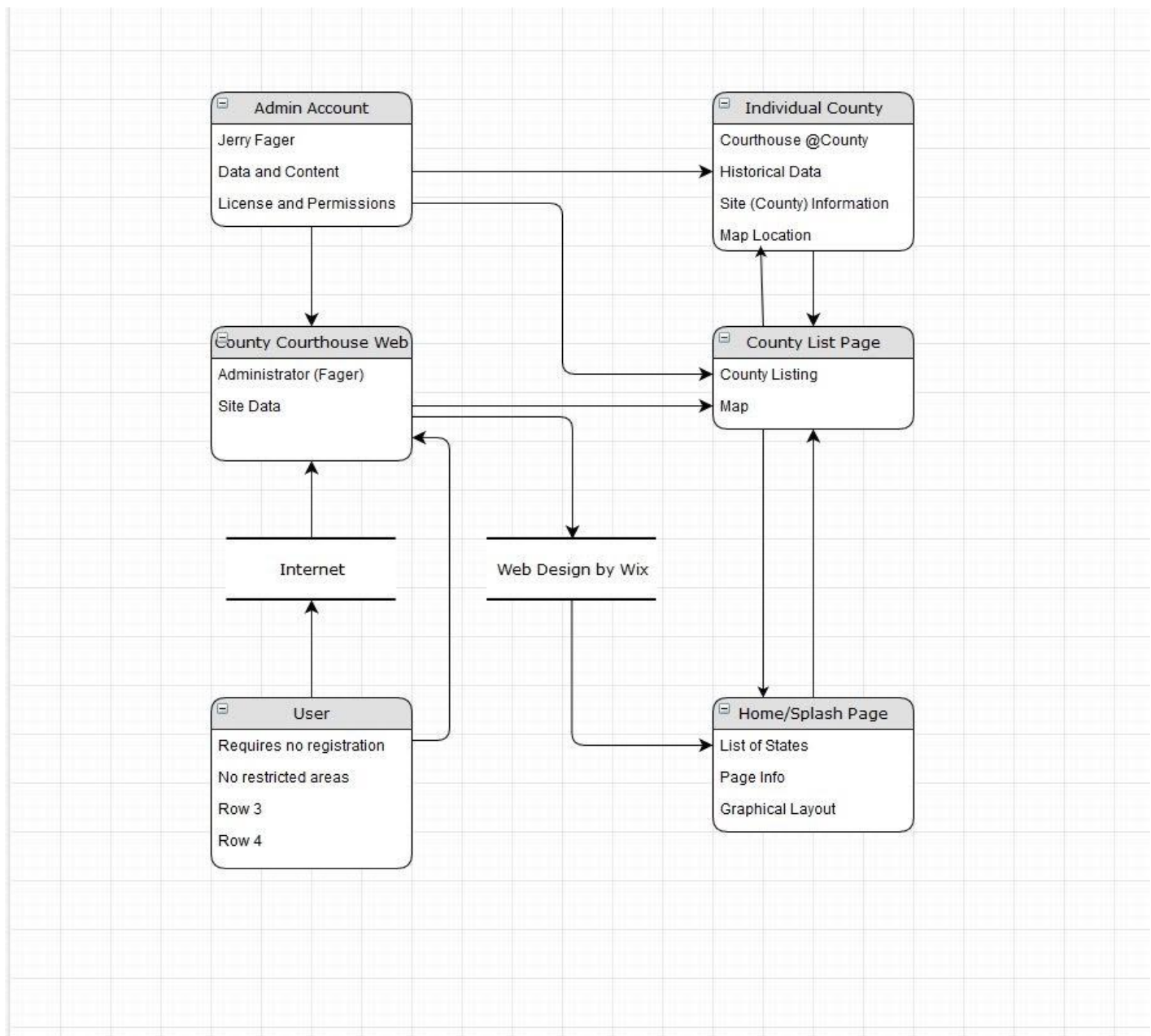
Gantt Chart 1.1

This Gantt was created the 2nd week of starting the project and was used as an example of the type of work performed and the hours spent doing them. A more traditional looking Gantt chart was later implemented by the team using Trello.
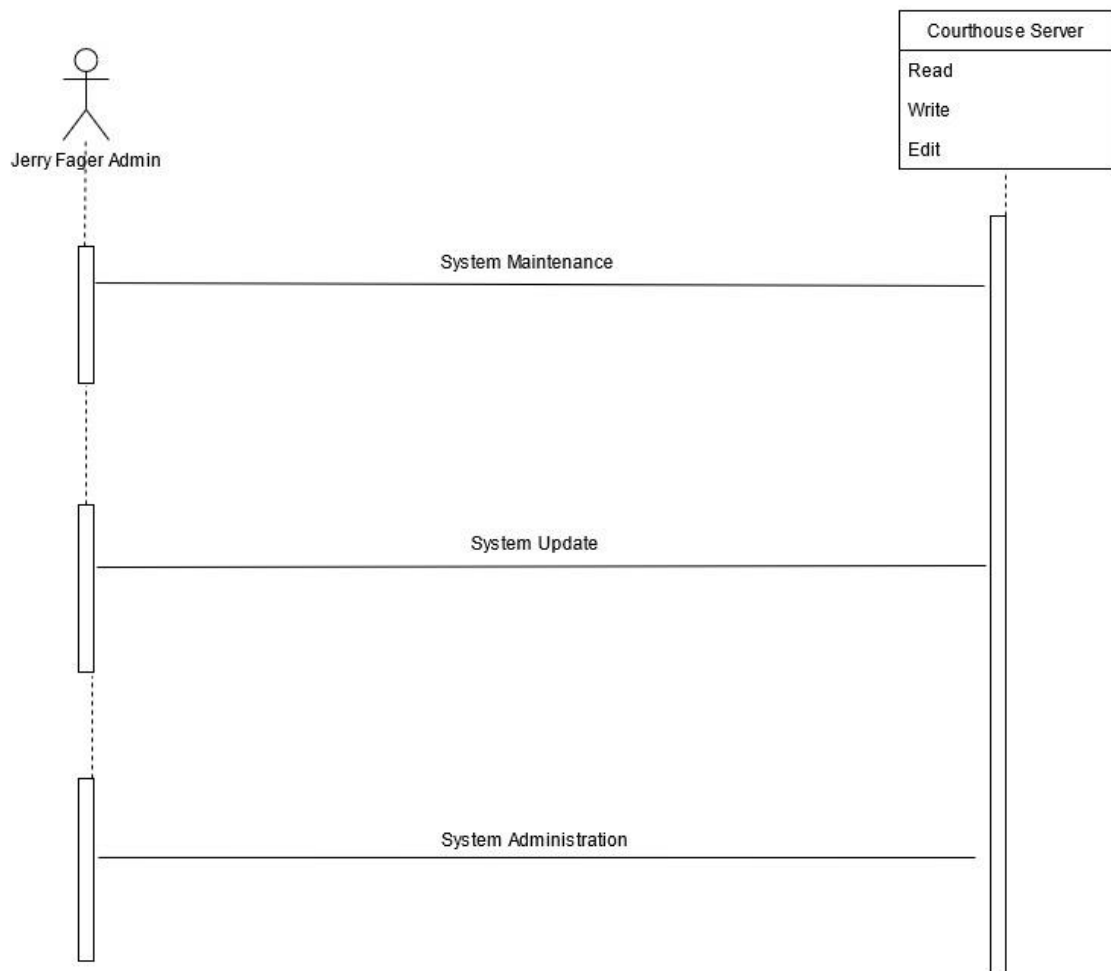
Data Flow Diagram 2.1

This chart is meant to show the flow of data from the site admin to the website as well as the websites data topology and the containers that store said data.

Admin Account
- Jerry Fager
- Data and Content
- License and Permissions

Individual County
- Courthouse @County
- Historical Data
- Site (County) Information
- Map Location

County Courthouse Web
- Administrator (Fager)
- Site Data

County List Page
- County Listing
- Map

Internet

Web Design by Wix

User
- Requires no registration
- No restricted areas
- Row 3
- Row 4

Home/Splash Page
- List of States
- Page Info
- Graphical Layout

UML Diagram 3.1

This diagram show the admin controls of our client and how he interacts with the server.

Client Role As Admin

Jerry Fager Admin

Courthouse Server
Read
Write
Edit

System Maintenance

System Update

System Administration

Professional Responsibilities:
When putting this project together it was important for me to consider the needs or expectations of my client. Mr. Fager let me know what he envisioned and I sought to find a solution that delivered the results he needed in addition to finding a solution that both met the clients expectations and would be easy to administer to (for our client) and navigate for the end-users of the site.
The only ethical code of conduct issues we encountered was a concern about use of pictures that may have been copyright protected and/or had royalties attached to their usage. Whether you look at internal IT governance or the ACM, HIPAA, HITECH or FERPA there's not a lot of area where this site can or does violate any IT rules or regulations. Furthermore we have been assured that out client has in fact either acquired these photos himself or has gotten express permission to use the photos he has obtained. So for us, this project was painless regarding rights or privileges concerning content.

Support and Integration:
My organization, the sponsoring organization is the University of Arkansas at Little Rock. Being an academic body and specifically the information science department being a branch of UALR academia dealing with data and data security I felt this melded quite well with the courthouse project. I felt this way specifically because the county courthouse project deals with data, technology, website applications, IT protocols and interpersonal interactions in business. I felt this project furthered my knowledge and understanding of how it feels to work with a client in need of tech related cohesion and the ability to manage a project through software oriented solutions.

References:
Some of the sites we utilized to find viable solutions to satisfy our client included:
Wix.com
Godaddy.com
Bluehost.com
Squarespace.com
Wordpress.com

Aws.com
Github.com

Appendix

Roger House, Jaylon Jones, Mueez Ramzan
**March week 14-17
3hrs Picking a project
6hrs Reviewing Information to include in Project Charter
3hrs Meeting with Team Members
**March week 21-27
2hrs Meeting with Client
4hrs Communication with client
9hrs Revising Project Charter
March week 28-3
0 hrs Break

April week 4-10:
12hrs Class Instruction
5hrs Meeting with Team Members
8hrs Reviewing Similar Websites

April week 11-17:
10hrs Class Instruction
2hrs Retrieving Site Data from Client
4hrs Reviewing Website to build Client Site
6 Reviewing Coding and Site Builders
April week 18-24:
10hrs Class Instruction
22hrs DFD Design due to Technical Issues
7hrs Attempting to Learn how to Navigate Wix and Wordpress.