

Project Title : Architect

Student Name: Zachary Hightower

Student Email : zphighto@go.olemiss.edu

Sponsor : Jeff Lucas

Sponsor Email : jhlucas1@olemiss.edu

Mr. Lucas

Signature: Zachary Hightower

Print Name: Zachary Hightower

LM ID#: 010944120

Date: 9/2/2021

Architect is meant to help authors, both professional and amateur, better visualize and develop the worlds that they create. I wanted to work on this because I've always enjoyed stories. I can especially remember the fun of flipping open the Phantom Tollbooth and seeing the big map of all the places that were in the world. I want to help create an application that can help authors make maps like that and bring their world to life.

The minimum viable product will be a web application where users can create different nodes for different locations on a map and use lines to connect them however they wish. A collapsible side pane view will show the locations and allow for organization of locations into groups. When a location is selected, the side pane will switch to a view of the characters, or other entries, populating that location. Users will be able to create entries, add notes to it, and have it associated with that particular location. The application will also provide users the ability to upload art for location and character icons.

During the course of the project, I will need to challenge myself to make a more fully realized project than I have before. This is something that, in theory, should be rolled out as a professional product. That means more rigorous testing and more challenges in usability. I can't assume that the users have any knowledge of computer science and that they may need subtle guidance to use the application.

The target users are table top roleplaying game enthusiasts, authors of fiction and non-fiction, video game enthusiasts, and video game developers.

Completing the application means I need to build a system for holding and organizing the world built by the user. I need to provide the ability to make multiple different worlds for each user. Users need to be organized so that no unauthorized user has access to another user's content. Initial use of the system or initial creation of a world should have tooltips that help a user get started and understand how to use all the tools available to them. Uploading custom icons should auto-refresh so that they

display as soon as they are in the application's system. I would also like to implement a basic light and dark mode.

Creation of the basic system should take roughly two weeks. Following that would be testing as a developer on my end and offering it for some user testing. That, and bug fixes, should take another week. The following week would focus on user login experience and the creation of explanatory tooltips. Next week would be implementing custom icons for locations and characters and integrating that to the application. The following week will be creating the light and dark mode, and working on any aspects that I, the users, or the sponsor have noticed lack development. The remaining time will be spent carefully testing and refining the features that have already been implemented and ensuring that the application meets or exceeds expectations.

CSci 487: Senior Project

Professional Conduct Affirmation

As a student in Senior Project, I understand that I am obligated to conduct myself in a professional, ethical, and legal manner according to the applicable policies, procedures, and expectations of the Department of Computer and Information Science, my School or College (Engineering or Liberal Arts), The University of Mississippi, and the discipline of computer science and to the applicable Federal and State laws and regulations.

I affirm that I will carry out the work on my senior project and all of its component assignments with academic integrity. I understand that the project is an individual project that I must complete myself without assistance from other individuals.

Please sign, date, and return to your instructor.

Signature: *Zachary Paul Hightower*

Print Name: *Zachary Paul Hightower*

UM ID#: *010944120*

Date: *9/2/2024*

UNIVERSITY OF MISSISSIPPI – UNDERGRADUATE CAPSTONE PROJECT SURVEY

Thank you for your interest in participating in a University of Mississippi Capstone Project Senior Design Course. This non-binding survey is designed to help communicate expectations among the Student(s), Client(s), and UM Faculty. Additionally, this survey will assist the University in identifying and preparing, if needed, necessary agreements. This survey should be completed and reviewed by all involved parties.

Course Information Course Name: Senior Project Department: Computer and Information Science Course number(s): CSCI 487	Faculty Instructors: Joseph Carlisle Timothy Holston Faculty Email: jcarlis1@olemiss.edu tlholsto@olemiss.edu Semester(s): Fall 2024
Student Information Name: Zachary Paul Hightower Year: 2024 Major: Computer Science (BSCS)	Address: 581 County Road 1525 / 100 U Club Cove Phone: 601 549 6604 Email: zphighto@go.olemiss.edu
Client Information Client/Sponsor Name: Jeff Lucas Title: Project Coordinator (if not Client): Title:	Address: <i>U of M, 205 Weir Hall, Uni., MS 38677</i> Phone: <i>N/A</i> Email: jhlucas1@olemiss.edu
Project Title and Brief Description - attach additional description page as necessary: Architect <i>(CSCI 487 students: The Brief Description should be 5 to 7 sentence paragraph – preferable typed below)</i> Architect is meant to help authors, both professional and amateur, better visualize and develop the worlds that they create. I wanted to work on this because I've always enjoyed stories. I can especially remember the fun of flipping open the Phantom Tollbooth and seeing the big map of all the places that were in the world. I want to help create an application that can help authors make maps like that and bring their world to life. It is a system for helping build the framework of a world and keep track of what makes each world meaningful and real.	
<input type="checkbox"/> Team Project <input checked="" type="checkbox"/> Individual Project	
Project Goals and Deliverables ("Student Project Results") - include desired format: report, code, prototype, CAD models, etc. – Attach additional pages as necessary: <i>(CSCI 487 students: State your MVP – preferably typed below)</i> <i>Architect will be a system where users can create different nodes for different locations on a map and connect them however they wish. A collapsible side pane view will show the locations and allow for organization of locations into groups. When a location is selected, the side pane will switch to a view of the characters populating that location. Users will be able to create characters, take notes on the character, and have it associated with that particular location. The application will also provide users the ability to upload art for location and character icons.</i>	
FOR UM CLIENTS ONLY: Are any sponsored research funds tied to this project? If yes, where from and how much?	

1. Confidentiality.

The University prefers that clients make reasonable efforts to avoid the inclusion of confidential information into student academic course projects, which take place in an open and collaborative academic learning environment. However, it is Capstone Project Survey

understood that there may be situations where a client wants to share information that is to be held in confidence. If so, the client, the University, and participating students should sign a separate Non-Disclosure Agreement ("NDA").

Please check the appropriate box below:

- ☒ Client WILL NOT share any confidential information during the Project and will not need an NDA.
- ☐ Client WILL share confidential information during the Project and will need an NDA. Please contact Allyson Best, Director of Technology Management in the ORSP – amilhous@olemiss.edu

2. Student Intellectual Property Rights (if applicable).

Background:

In the event that commercializable intellectual property is created, student's rights must be considered. While the University encourages clients to permit student participants to retain their intellectual property rights developed under the client projects, it is understood that there may be situations where the client wants to obtain ownership or license rights from the student participants. Students are never obligated to participate in projects or activities that require the assignment of the student's intellectual property to the University or to another entity. In this course, students are presented with two options: (1) to participate in projects or activities that do not require the student to license/assign their intellectual property or (2) to participate in projects or activities that require the student to license/assign their intellectual property.

Please check the preferred potential outcome for Student Project Results:

- ☐ No expected commercializable IP.
- ☒ Student Retains Student IP. – Under this option, Client will be provided with the Student Project Results for Client's non-commercial internal review and analysis only. Any and all rights to the Student Project Results, including all intellectual property rights, if any, shall remain with the individual Student Participants under appropriate University policies regarding rights to and ownership of intellectual property. Prior to any commercial use or subsequent transfer of any Student Project Results, Client must obtain the appropriate rights from the respective Student Participant owners.
- ☐ Student Provides a NERF to Client. – The Student Participants will grant Client a non-exclusive royalty free commercial license ("NERF") from the students to use the intellectual property in the Student Project Results. Please contact Allyson Best, Director of Technology Management in the ORSP at amilhous@olemiss.edu
- ☐ Client Owns Student IP. – The Student Participants will assign their intellectual property rights in the Student Project Results to Client. Please contact Allyson Best, Director of Technology Management in the ORSP at amilhous@olemiss.edu

Related University Policies

- Copyright (Intellectual Property) – RSP.TM.400.001
- Patents and Inventions – RSP.TM.400.003

UM CLIENTS ONLY

3. Student Academic Research in Potential Publication(s)

- ☒ No academic research in project is anticipated.
- ☐ Academic research is possible and student acknowledgment/authorship will be determined accordingly.

Submitted by:

Jeff Lucas
AUTHORIZED SPONSOR/CLIENT NAME

9/2/2024
Date

Joseph Carlisle
UM FACULTY INSTRUCTOR NAME

8/26/2024
Date

Timothy Holston
UM FACULTY INSTRUCTOR NAME

8/26/2024
Date

Zachary Paul Hightower
STUDENT NAME

9/2/2024
Date