

# Progress Report

CS461 - Senior Software Engr Project

Group 36: Data Interactive Visualization Application(DIVA)

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## **Abstract**

This purpose of this document is to examine and summarize the development of the Data Interactive Visualization Application (DIVA). Furthermore, this document will discuss the purpose and goals of our project, summarize the activities undergone in the past academic term, and finally define the current state of the project.

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## 1 PURPOSE AND GOALS

### 1.1 Purpose

The purpose of our project is to develop an application that can absorb data stored in a comma-separated value file, or CSV file, and render the information into a 3D environment. Furthermore, this application will possess the ability to export these 3D environments into several file formats, including pictures, animations, and movie files. The DIVA web application will serve to the stakeholder as a tool to improve the overall understanding of large data sets, and more specifically understand the data's significance to a context provided by the stakeholder. The stakeholder can use this increased understanding of the data to present a large data set to a non-technical audience and effectively communicate the significance of the data while avoiding loss of understanding by the audience.

### 1.2 Goals

The development team's goals for this term were to explore the different technologies that our project could integrate in order to fulfill the requirements provided by the stakeholder. Furthermore, another goal for this academic term was to build the documentation to properly outline the functionalities of the DIVA web application. Moving forward, our goals for the upcoming academic term include giving our stakeholder the opportunity to test our application by the end of the term. To accomplish this, the development team will work in conjunction with the stakeholder to create and execute sprint goals to ensure timely completion.

## 2 WEEKLY SUMMARIES

### 2.1 Week 3

#### 2.1.1 Activities

This week, our team made initial contact with our client. In this initial email, our client instructed us to begin building an approach for the development of the application, and to begin forming an agile software development cycle. For communication purposes, our team created a Slack channel with all of the group members and our client. For internal discussion between our group, we also created a Discord channel. In order to create an organized collection of our project's documentation, a GitHub repository was created and shared within the Discord channel. Finally, our group had a meeting later in the week which entailed gathering the individual schedules of the group members, and adding them to a shared Google calendar.

#### 2.1.2 Problems and Solutions

During this time, our group's main issue was not knowing where or how to begin approaching the problem provided to us by the client. Our understanding of how the data provided by the application user should be rendered in a 3D environment was not strong. The solution to this issue was to plan on continuing communication with our client in order to fully understand his requirements, and to begin researching technologies to fulfill these conditions.

### 2.2 Week 4

#### 2.2.1 Activities

We had a team meeting where we were able to complete our Problem Statement. Many of the parts of the document were left undefined until we are able to receive additional information about the project. Two of our members were able to get more information on what was required in the Problem Statement and how we could improve our document.

#### 2.2.2 Problems and Solutions

We are currently waiting to update our documents, and we are expecting an update from our client soon. We have started our Requirements Document. We hope to have this completed early next week.

### 2.3 Week 5

#### 2.3.1 Activities

A lot of progress has been made on our Requirements Document. We are mostly done, and we have received some helpful answers from our client. We also were granted an extension on a few assignments in order to make sure that we were able to produce the best document possible. We were also able to meet with our TA in order to help us get a better idea of our expectations and how we can improve our work.

### **2.3.2 Problems and Solutions**

We are still wanting some clarification on a few issues and are waiting to hear back from our client before. While we wait we are making our best guess as to what he wants as we continue to work on our Requirements Document and further projects.

## **2.4 Week 6**

### **2.4.1 Activities**

This week we reached out to the professors and obtained an extension on our assignments due to our client being on a business trip. We worked on setting up the layouts and completing the overhead for the written assignments we grabbed an extension on. When sending an email to our client, we received an auto-reply email letting us know that he would be out of the office until November 4th.

### **2.4.2 Problems and Solutions**

The biggest problem this week was the discovery of our client's absence. Saying as we had to have his okay and feedback on projects, we had to come up with a solution in the time being. Unfortunately, much of our progress was stopped, but we continued doing as much as we could without the feedback and obtained necessary extensions on our assignments.

## **2.5 Week 7**

### **2.5.1 Activities**

This week we were able to finally write our requirement first draft after being able to make contact with our client to discuss in more depth about the project. We mailed the client our requirements first draft and waited for feedback from him.

### **2.5.2 Problems and Solutions**

In discussing the tech review, we ran into the issue of division of topics. The tech review required that we divide content between the group evenly. With a larger group of five, we found it difficult to come up with enough topics to fulfill the required amount. We contacted the professors and they agreed that our situation was unique and let us drop one topic per person.

## **2.6 Week 8**

### **2.6.1 Activities**

Most of our documents that we have submitted have been approved by our client. This will help at the end of the semester by limiting the amount of documents needing a sign off last minute. We have also started our Tech Reviews and are preparing our drafts for peer reviews.

### **2.6.2 Problems and Solutions**

Some difficulties were faced while writing the tech reviews due to the unclarity of some topics. But they were soon solved by having a group discussion to clear up any doubts. Other than that this week we didn't have any noticeable problems faced this week.

## **2.7 Week 9**

### **2.7.1 Activities**

This week we able to do peer reviews within our group for the first draft of the tech review. After the peer review we were able to work on our tech review final drafts. Other than that their was very less progress this week since it was the thanksgiving weekend.

### **2.7.2 Problems and Solutions**

Even though we are making progress due to the delay in the start of the term we still have more catching up to do with the design document and other assignments. As our time to meet was prolonged as well due to the long weekend. To which made clear deadlines and plans to meet the during the earliest class hours as a group.

## 2.8 Week 10

### 2.8.1 Activities

This week we were able come and formulate the design document for our project with the team effort and were able to submit it on time. Everyone in the group submitted their final draft of the peer review. We were able to receive timely feedback from the professor Winters and our TA Wesley on our assignments which includes User Requirement's assignment and the Problem Statement assignment. With the feedback and the professor winters permission we were able re-edit these previous assignment's and were able to make re-submissions.

### 2.8.2 Problems and Solutions

The problems in this week are fixing old documents that needed to be fixed in the early week. For example, in the problem statement there are various terms that requires further definitions. We also decided a name for our project and needed to fill that in every old document. The solution is we fixed everything on weekend before Dec 4th and discuss for next quarter.

## 3 REFLECTION ON THE LAST DEVELOPMENT PERIOD

Retrospective of Last 10 Weeks		
Positives	Deltas	Actions
Met with awesome group members and set up Discord and GitHub channel to communicate and share file respectively	difficult time management for next quarter	Will keep in contact in Discord to discuss schedule
Successfully contacted the client throughout the term to figure out the requirement	Need to know the client's schedule to make a better schedule for Winter term	Meeting with client for Winter term to further plan our schedule.
Was able to submit all documents for this class	Need to revisit old assignment to fix mistakes and add details for better grade	Future meeting during finals week will be held
Was able to catch up with the due dates	Work stack at the end of the quarter	Need to reschedule for Winter term to prevent unbalance schedule
Meeting with TA and Instructor to discuss the status of the project and asking for feedback	Absence of the client until week 6	