**TEAM GREEN**

**Michael Donatucci – Data Engineer & Modeler**

**Julie Gandre – Frontend Developer**

**Karen Kitchens – Backend Developer/Lead Developer**

**Stephen Lyssy – Project Manager/Lead Developer**

**Project Management Job Costing Visuals**

**Problem:**

Green Team’s Job Costing App 1.0 was a good starting point for a project management job costing tool, but in order to be a truly useful tool, many features are still needed. Currently, this app only tracks labor expense, and start and completion dates. Since the data for this app is dependent on the user’s inputs, the visualizations are limited. As one can imagine, there is much more to delivering a successful project than tracking labor expense and the start and completion dates.

**Solution:**

Green Team’s Job Costing App 2.0 will include several upgrades that will make the app a much more useful tool. These upgrades will include the following improvements and/or additions.

* Project visualizations will be converted from Plotly.js visualizations to D3.js visualizations allowing them to more engaging and informative.
* A new project map visualization will be created that will show where projects are located. The circle size to display the projects location will be determined by the project revenue. A slider will be incorporated to filter the projects such that only those projects for a particular time frame are displayed on the map.
* Additional expense fields will be added allowing for more detailed job costing. These expenses will include “Material Expense”, “Subcontractor Expense” and “Overhead Expense”.
* (If time allows) features to help forecast pending projects completion financials will be included.
* (If time allows) we will add the ability to update and delete projects and project fields including time entries.

|  |  |  |
| --- | --- | --- |
|  | Start Date | Expected Completion Date |
| Update the ERD | 01/02/2021 | 01/03/2021 |
| Database updates to make room for the latitude and longitude for each project and additional expenses. | 01/02/2021 | 01/5/2021 |
| Flask Updates to gather latitude and longitude and load that information to the database | 01/02/2021 | 01/09/2021 |
| Flask Updates to post new expense fields to the database | 01/05/2021 | 01/09/2021 |
| Update Existing Visualizations | 01/02/2021 | 01/22/2021 |
| Create D3 Map Visualization | 01/02/2021 | 01/22/2021 |
| Completing of Project and Delivering presentation | 01/26/2021 | 01/26/2021 |

Green Team will utilize lessons learned from version 1.0 and the skills they have developed to bring this project management tool several steps closer to being a premier project management job costing application. The tools we will be using to upgrade this app will include the following, Python, HTML, Javascript, SQL Server, SQL Alchemy, CSS and D3.