EE/CprE/SE 492 GROUP PROGRESS REPORT

Group number: sdmay22-19
Project title: Underground Cable Packing Web Tool
Client: Professor Mathew Wymore, EPRC, Alliant Energy
Advisor: Professor Mathew Wymore
Team Members: Name - Leadership Position (below)
Alexander Young - DevOps and System Engineer
Brevin Wapp - Scrum Master
Haadi Majeed - Quality Assurance Engineer
Matthew Hoskins - Team Lead
Nate Tucker - Tech. Lead
Tom Sun - User Experience and Requirements
Quinten Sorice - Client Point of Contact

o **Project Summary:**

This project's goal is to develop a web tool/site that will function similar to the executable software the project is based on while adding new features and improved primary functionality such as: enhanced algorithm, mobile support, and ease of use. This web tool will also allow for more readily available functionality being an application available on EPRC's website for immediate use while being hosted on Iowa State University's servers. To this, the direction or scope of this project has not undergone any change from original ideation and planning.

o **Accomplishments**

This is the first group report of the semester, and as such the work reported in this report will include what has occurred in the project since the start of the semester.

The team as a whole has begun weekly meetings with each other as well as our advisor Professor Mathew Wymore. The team has also started software development progress on the team gitlab issue boards.

Individual work: (Team member - Description/list of work, when/week)

- Alexander Young - Ensuring the correct and successful setup/access to local (Iowa State University) servers - week 2 - 3. Looking into making a database change from PostgreSQL and MongoDB for more efficient data storage - week 3.
- Brevin Wapp - Starting table setup including the formatting of data that will be stored on the backend, week 2 - 3.
- Haadi Majeed - Researching existing algorithm processes that could be used in the project and properly working on the pseudocode of the algorithm, week 2 - 3.
- Matthew Hoskins - Prototyping the backend side communication with the frontend that will then send responses back after receiving information (code checked by Alexander Young and Nate Tucker), week 2. Researching/working on the mathematics and best solution for programming the algorithm that will allow quick solve times and correct results, week 1 - 3.

- Nate Tucker - Managing the transfer/communication (between the frontend and backend) and subsequent storing of data involved in the software development, week 2 - 3.
- Tom Sun - Taking existing UI design to a specialized mobile versioning to encapsulate the different renders of the frontend aspects, week 2. Starting earlier work on the visual frontend side, week 3.
- Quinten Sorice - Worked on own to find options for the algorithm in order to increase group depth of knowledge on the problem of creating the "best" possible algorithm, week 2 - 3.

o **Pending issues**

For the purpose of making a more effective database, the potential switch from PostgreSQL to MongoDB for the JSON data of the end result visualization being stored. Need to ensure that Iowa State servers are allowed to use MongoDB, and if so, the correct switch to it. Our representative on the server side has been contacted about taking such an action.

o **Advisor Input/Signature:**

Please select one of the options below and sign.

_____ I am pleased with the progress the team is making.

_____ The team's progress could use some minor improvements which I will discuss with them.

_____ The team's progress has some major concerns that I will discuss directly with Dr. Bigelow (bigelow@iastate.edu , 515-294-4177)

Signature:

_____

o **Client Input/Signature:**

Please select one of the options below and sign.

_____ I am pleased with the progress the team is making.

_____ The team's progress could use some minor improvements which I will discuss with them.

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Signature:

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