Intro / References

Overview

- After your project teams are made, your first task will be **strategic planning.** The results of your planning are summarized in your Agile charter.
- An agile charter is a light and flexible document that is used for planning.
- The charter should be reviewed and approved by the sponsor before being submitted.

Contents of the Agile charter

Project name: Gas and Oil Usage Patterns and Predictions
or Home Heating Fuel Prediction & Visualization Project

WHO: Stakeholders;

- development team members & roles (i.e. skills and professional interests / goals)
    - Hunter - Data Science major, excels in model construction and data mining
    - Ben- Information Technology Major, skilled in javascript, with some python experience
    - Zach - Computer Science major, skilled in front-end development, some experience with machine learning
    - Chris - Computer Science major, machine learning experience, skilled in front-end development, python, java.
- product owner - Derek Barka
- Scrum master - Craig Smith

WHY / WHEN - Product vision; MOV;

- Problem / context. What is the problem you are trying to solve? For what audience?

  Creating a predictive model to predict the amount of oil for a customer to order based on past orders and weather. This also includes creating visualization to provide context for users.

- Vision: aspirational; communicates concisely where the product hopes to go and what it hopes to achieve in the long term.

  The product hopes to be a part of the SilverTech website to show a snapshot analysis for every customer from past orders and the recommended amount to buy.

- MOV: Measurable organizational value - what value will your product add to the clients / users?
    - This project will be successful if, by May of next year, we provide an accurate machine learning tool that will give accurate predictions based on previous customer and weather data with a visual representation of previous data in the form of an interactive graph.

WHAT / HOW:

- Deliverables / Product goal(s):
    - What is the format of the product? How will it be delivered to the client?
        - Python program
        - Visual on Website
    - What is your goal for this semester - i.e., what is your minimum viable product (MVP)?
        - A program that generates a predictive model based on Silvertech gas consumption Data paired with weather data.

- Have an understanding of the customer data and creating an accessible database that combines it with the weather data

- Work / scope / timeline
  - What work is in scope? What work is out of scope?
    In scope:
    - Machine learning program
    - Interactive Graph
    - Weather/temperature database

    Out of scope:
    - Usage database setup
    - Data other than Weather and Sales data used in models
    - GUI for our model
  - Timeline
    Start date: 9/13/22
    Planning phase: 9/13/22 - 10/11/22
    - Project charter
    - Project stories
    - Project design/plans

    Sprint 1: 10/11/22 - 11/1/22
    - Tech assessment
    - Development of needed skills
    - Sprint report
    - Find weather data and combine to create usable database

    Sprint 2: 11/1/22 - 11/22/22
    - Increment 1
    - Draft of tech document
    - Sprint report
    - Splitting the data and begin data cleaning and prepping for model creation

    Wrap-up: 11/22/22 - 12/13/22
    - Increment 2
    - Presentation
    - Draft of tech document
    - Create models and test performance and have a working demo with a program

    End date: 12/13/22
- Needs (budget) & constraints.
  No budget
  Customer database - Derek Barka
  Weather/temperature database - Team members