# Preliminaries

MercedEnergy.com Software Engineering 01-10-2019

## Objectives

- The goal is for you to be able to produce quality software for MercedEnergy.com and TechEquation.org
- The ultimate goal of this team is to create a web application that will remotely manage a smart battery management system.
  - This web app will serve as a control panel for managing the batteries remotely.
- This team will create websites, contribute to events, and much more.
- Serve the needs of MercedEnergy.com
- Become capable Software Engineers
- Ability to document software

# Software Engineering

- "The application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software" - IEEE
- MercedEnergy.com is the client
- Documentation is very important.
  - Make sure you write everything down.

# Starting off

- The team will begin by learning the necessary to develop software.
- First we will assess the teams skill level.
- The meetings will consist of small projects and learning material.
- Tasks will be assigned for major projects.

## **Computer Programming**

- Team members should have been exposed to a computer programming and computer science.
- Languages we will be using include but are not limited to
  - Java, C++, Python, JavaScript
  - (Web Development) HTML, CSS
- Begin by learning HTML

#### HTML

- HyperText Markup Language
- Will be used extensively when creating websites, or web application.
- "standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages"

#### CSS

- Cascading Style Sheets
  - Cascading: What part of them document section will require the style rule.
  - Style: How color, font, margins, tables, paragraphs should look.
  - Sheets: Rules of on how a webpage looks.

#### **JAVASCRIPT**

- Gives webpages functionality.
- A programming language for the web
- Node.js: open source server environment
- React Native : A JavaScript Framework

#### Sources & Websites

- https://www.w3schools.com/
- https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide

### Thank You

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