1. General Questions on all files
   1. Most of the customers have five sets of sheets i.e Battery Discharge data, Battery Voltage and Temperature data, Battery Conductance data, String discharge and String measurement. How do each of these data points from these individual sheets relate to the, State of Health (SoH) and State of Charge (SoC) of the batteries?
   2. The sheets pertaining to String discharge & String measurement do not have Battery no. Is this by design or have these data points been missed out?
   3. From the data we are assuming that the Unique ID is the indicator of the Midtronics testing tools which are used for testing batteries.
   4. From the samples which were tested for one customer, it’s been found that a battery is associated with several Unique IDs, however a unique ID is associated with only one battery. So from this observations, can we infer that the Unique Id’s (group of) are like permanent fixtures to batteries testing the values at regular intervals?
   5. Measured voltage values are found for both Battery discharge data and Battery VT data. We are assuming that these variables from both the sheets for the same battery would imply the same type of measurement.
2. Specific Questions on Battery Discharge Data
   1. What is the normal frequency of data acquisition for the variables in this data set?
   2. What would be the normal ranges of Voltage and Current, which implies healthy state of a battery?
   3. What would abnormal values for voltage imply? For example the mean value of voltage for the customer Vodafone is around 13. However there were values ranging from 0 volts to around 16 volts. Are these outliers or do these abnormal values have any implications to the state of health of the battery?
   4. Similar to the above question, we have found abnormal values of current ranging from -236 to 243 when the mean value was around 23. Does these abnormal values of current indicate that batteries have failed?
3. Specific Questions on Battery VT data
   1. What would be the normal ranges of Voltage and Temperature expected for normal healthy batteries?
   2. What abnormal values of Voltage implies failure (if at all it does)? The mean values for Vodafone was around 9. However there were values ranging from 0 to 18
   3. What does abnormal values of Temperature imply? We found temperature ranging from -50 to 18382, when the mean value was around 22
   4. What is the normal frequency of data acquisition for this data set?
4. Specific Questions on Battery Conductance
   1. What are the normal ranges for Conductance?
   2. The mean value for Vodafone is around 2150. However there are ranges of values from 64 to 65501. What do these high values indicate?
   3. What is the normal frequency of data acquisition for this data set?
5. Specific questions on String Discharge data
   1. What is the relation of these data points to the battery SoH?
   2. Does the Voltage and Current measured in this data set have any connection to the battery Voltage and current measured in the Battery discharge data?
   3. What are the normal values for these variables?
   4. What are the ranges where one needs to be concerned about?
   5. What is the normal frequency of data acquisition for this data set?
6. Specific questions on String Measurement data
   1. There are 4 measurement variables within this data set, Voltage, Temperature, Current and Ripple current. How are they related to the SoH of the battery?
   2. What are the normal ranges for these variables?
   3. What are the ranges of values which indicate potential problems with a battery?
   4. What is the normal frequency of data acquisition for this data set?