Steps followed

1. All Numeric variables are explored.
2. Minimum and maximum values of all variables found.
3. Histogram of these variables values against frequency is plotted.
4. Skewness and Kurtosis calculated.
5. Correlation Matrix calculated using Pearson Correlation Coefficient.

Remaining:

1. How to handle missing values
2. How to remove outliers

Some definitions:

1. Skewness: It is a measure of symmetry in a distribution. Symmetrical distribution will have a skewness of 0. So, a normal distribution will have a skewness of 0. I calculated it because if the distribution is symmetrical we can normal distribution to find values of parameters and do further analysis if needed.
2. Kurtosis: It measures the amount of probability in tails. Normal distribution has kurtosis of 3. If Kurtosis more than 3 then more data in tails and if it is less than 3 then less data in tails. This is also calculated to see how closely the distribution resembles Normal distribution.
3. Pearson Correlation: Used to measure the strength of a linear association between two variables, where the value r=1 means positive correlation and r= -1 means perfect negative correlation.

Requirements for Pearson correlation coefficient:

1. Scale of measurement should be interval or ratio
2. Variables should be approximately distributed
3. The association should be linear
4. There should be no outliers (We have to remove outliers)
5. Handle Missing Values:

There are some methods which are time series dependent and some independent of time. We need to decide that. My idea was to replace missing values with seasonal mean. (Reference 3)

1. Remove Outliers: handle them by methods of missing values.

References:

1. <https://www.spcforexcel.com/knowledge/basic-statistics/are-skewness-and-kurtosis-useful-statistics>
2. <http://www.sthda.com/english/wiki/correlation-matrix-a-quick-start-guide-to-analyze-format-and-visualize-a-correlation-matrix-using-r-software>
3. <https://www.kaggle.com/juejuewang/handle-missing-values-in-time-series-for-beginners>