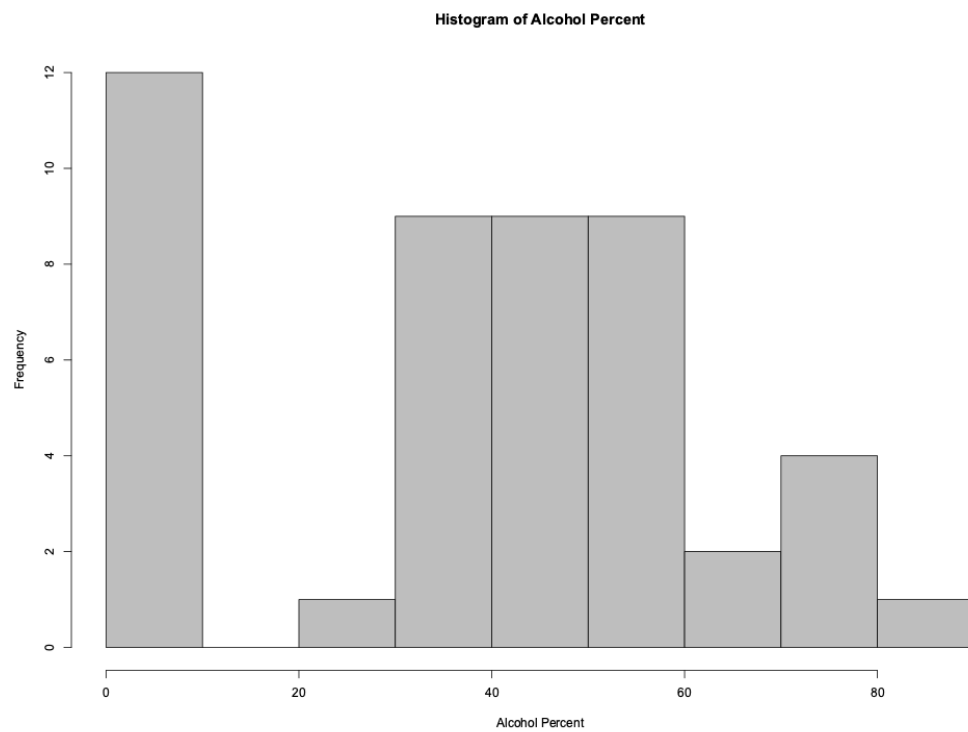


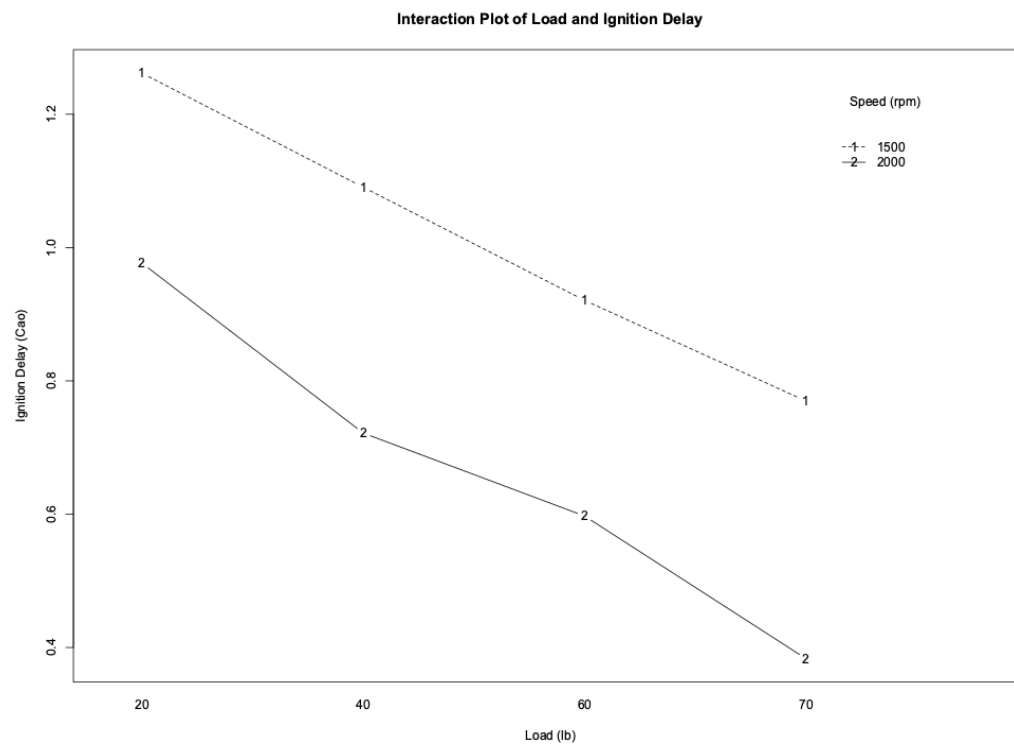
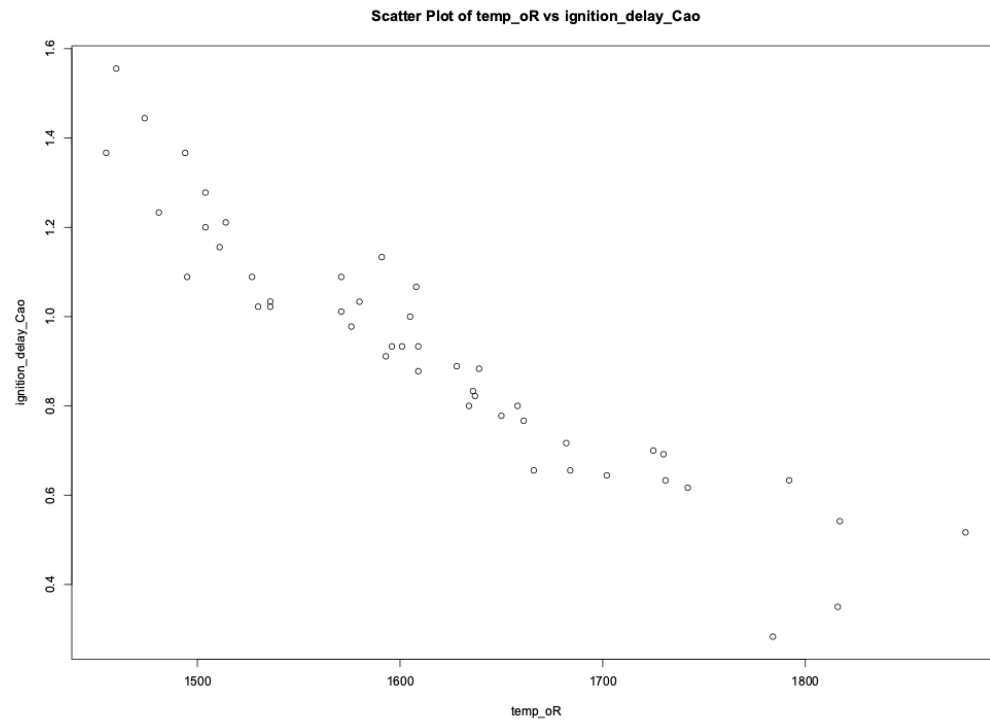
Satoshi Ido
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Professor. Craig
17 January, 2023

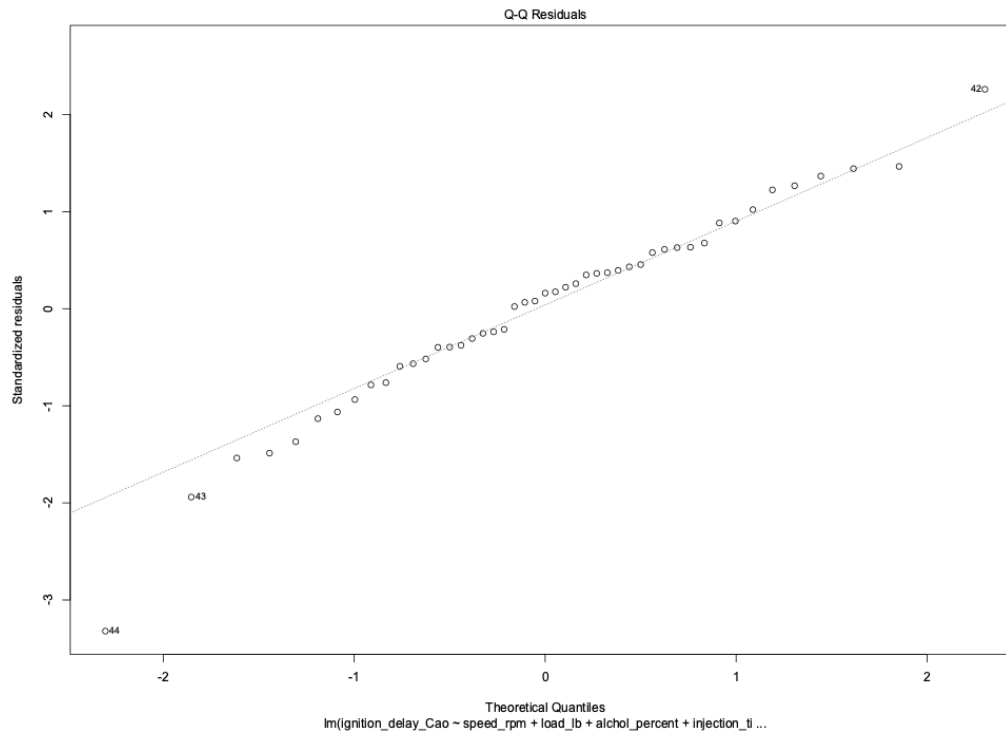
STAT 582

HW1

Four Key Graphs







Five Key Questions

- Do you have any insight or hypothesis about relationships between factors and target value (ignition delay)?
- Could you explain the meaning of the terms: “the speed of the engine”, “the load on the engine”, “the percent alcohol in the fuel” in detail? How were they collected?
- How were the data for “the percent alcohol in the fuel” collected? From the histogram of Alcohol Percent, we can see some dispersion of data.
- Do you think temperature affects the effect size of four target explanatory variables on the ignition delay? It seems there is some relationship between “temperature” and “ignition delay”. We can go deeper into those relationships.
- Is there any possible relationship between any of those experimental variables? For example, from the interaction plot of load and speed on ignition delay, we can see the load on the engine affects the ignition delay, while the level of the speed of the engine seems to have some impacts on the load effect size on the ignition delay.