A. The data file ADR.csv has the Average Daily Room Rate (ADR) and Revenue Per Available Room (RevPAR) for randomly selected 39 days in a year for a hotel. Formulate the following as testing hypotheses problems:

(a) Is true mean ADR = $130? Use the appropriate CI and test of hypotheses method to answer this question. Verify the normality assumption.

(b) Is true mean RevPAR = $130? Use the appropriate CI and test of hypotheses method to answer this question. Verify the normality assumption.

B. Use the data file winequality.csv for this problem:

(c) Are the mean alcohol contents of Red and White Wines equal? Use the appropriate CI and test of hypotheses method to answer this question. Verify the normality assumption.

NOTE: This is an example of two-sample means problem with 2 independent samples.

(d) The data file Two_restaurants.csv shows daily sales during 11:30 AM – 1:00 PM time period of two fast food places situated at an intersection of Boulder City. Are the mean sales during this period equal ? Use the appropriate CI and test of hypotheses method to answer this question. Verify the normality assumption.

NOTE: This is an example of two-sample means problem with paired samples.