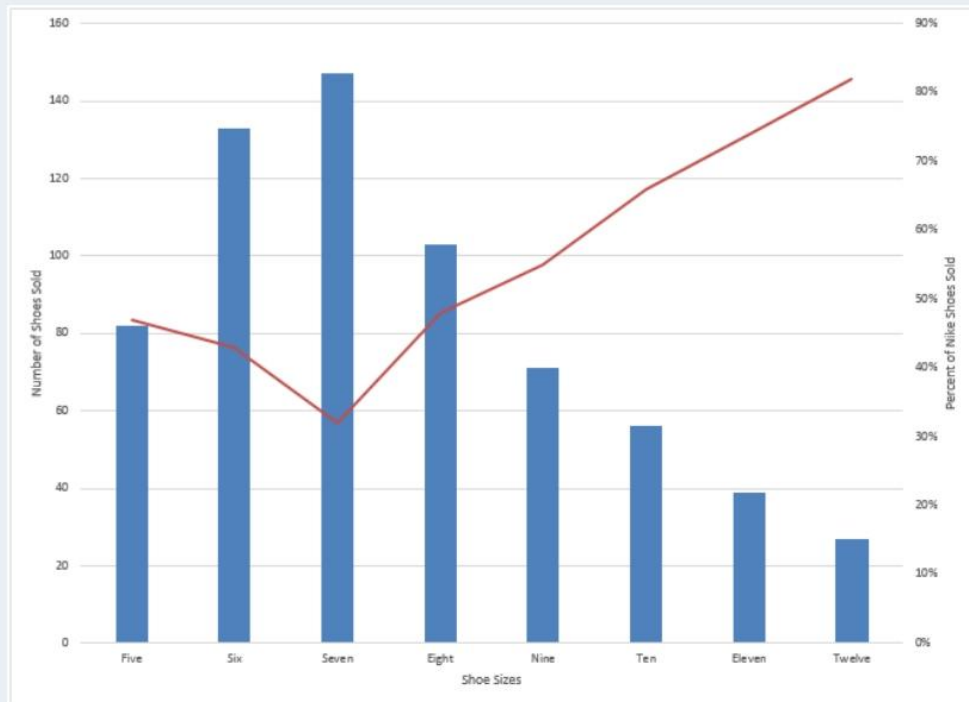


Compulsory Task 1

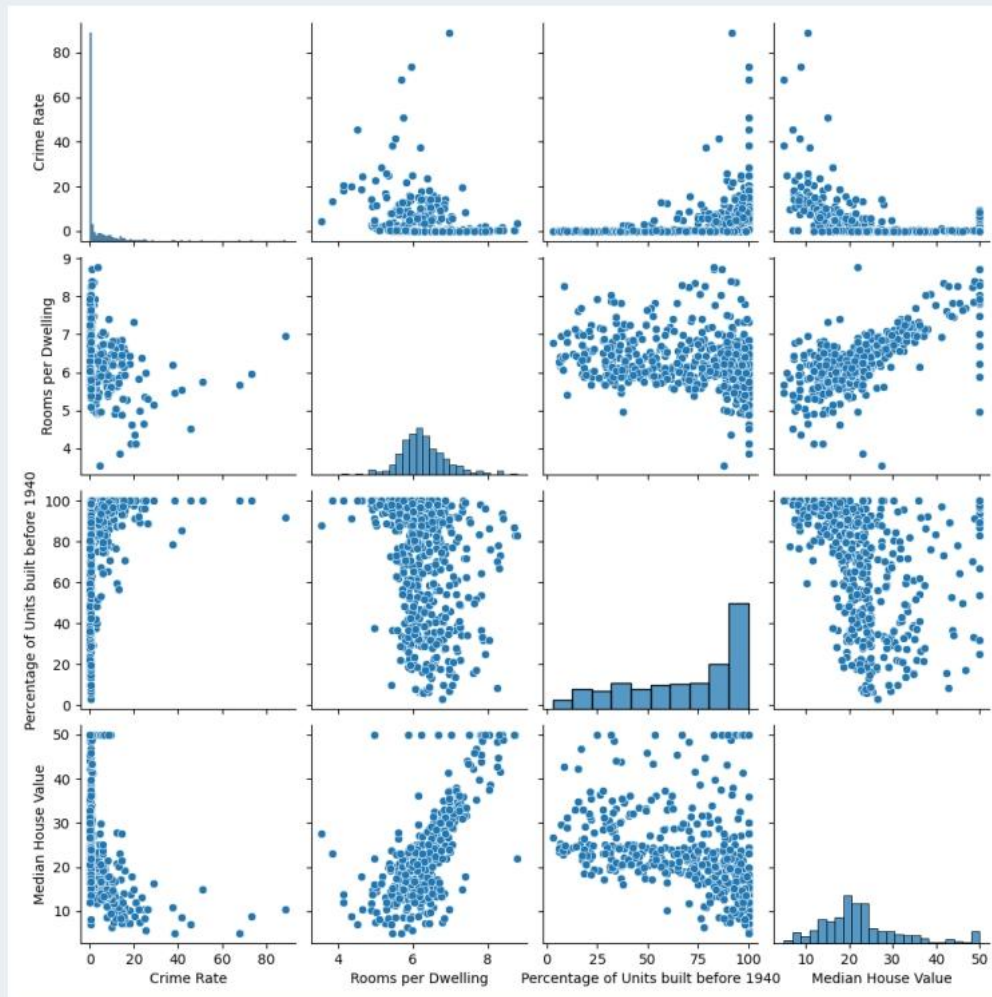
The following double axis chart shows the number of shoes that have been sold along with the percentage of shoes sold. Examine this chart and answer the questions that follow:



- Which shoe size has the highest percentage sold?
 - Which shoe size is the most manufactured?
 - Based on this data, which shoe sizes should be manufactured more, and which sizes should be manufactured less?
-
- Size seven has the highest percentage sold
 - Size seven should be the most manufactured as it has sold the most
 - Sizes six and seven should be manufactured more, whereas sizes eleven and twelve should be manufactured less

Compulsory Task 2

The following scatterplot matrix is from the Boston Housing dataset. It examines certain characteristics of a neighbourhood along with the Median House Value of that neighbourhood. Examine this graph and answer the questions that follow:



- Does Boston have a lot of crime generally? Explain.
 - Generally speaking, how many rooms do Boston dwellings have? Explain.
 - Does the number of rooms per dwelling have an impact on housing prices? Explain.
 - Would you say that most of the houses in Boston are new? Explain.
 - Are modern neighbourhoods pricier than older neighbourhoods? Explain.
-
- Boston generally has
 - Crime rate vs rooms per dwelling
 - Crime rate lower than 20% on average

- Therefore, low rates of crime
- Crime rate vs % of units built before 1940
 - Higher crime rates between 75-100% of units built before 1940
 - Therefore, the more % units of house built before 1940 the higher the crime rate
 - Generally low rates of crime for 0-75%
- Crime rate vs median house value
 - The lower the median house value the higher the crime rate
 - Histogram shows higher frequencies of houses with low median house value so and on average 20% and lower crime rates
 - Generally, low rates of crime
- Generally, Boston houses have between 6 +/- 2 rooms per dwelling as shown by the histogram
- Yes, there is a linear relationship between rooms per dwelling and housing prices.
 - The more rooms per dwelling, the higher the housing prices
- Most of the houses in Boston are not new, as the histogram shows the frequency is higher for % of homes built before 1940
- Generally, the newer the houses the higher the housing price
 - This is because most of the old houses data are aggregated below 30 median house value