

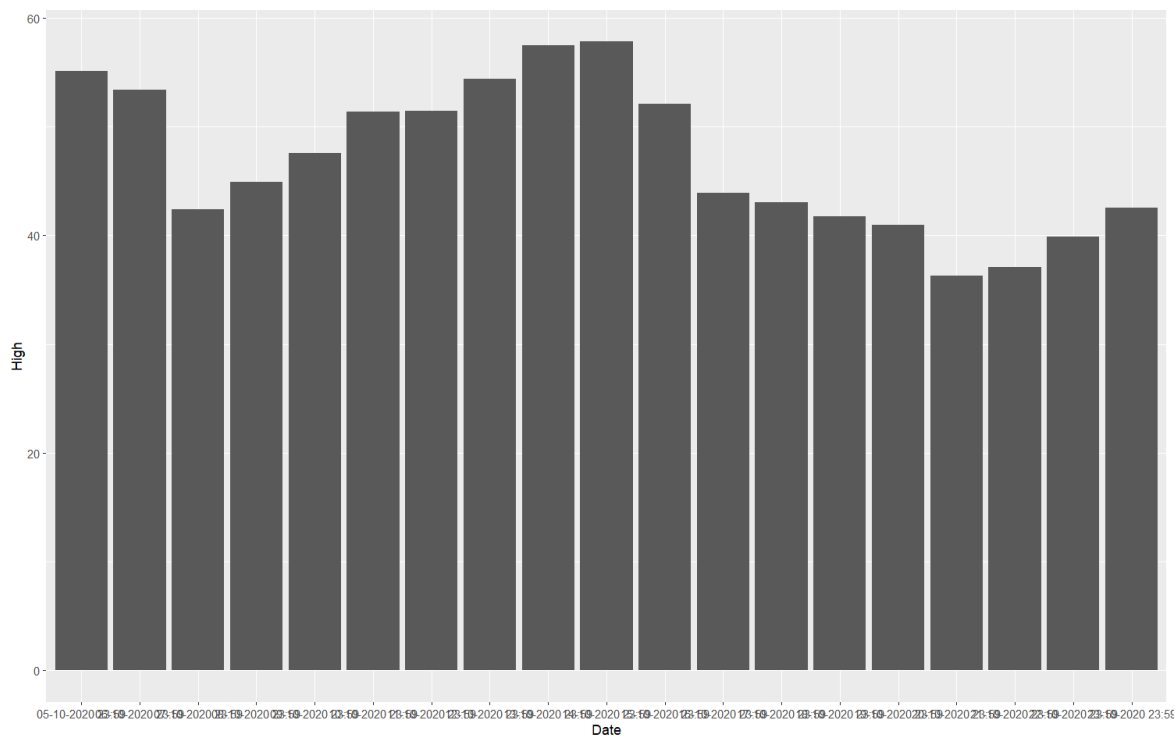
#### Question 4 – Discuss Descriptive and Inferential Statistics of above dataset.

##### Solution – Descriptive Statistics –

It describes the important characteristics/ properties of the data using the measures the central tendency like mean/ median/mode and the measures of dispersion like range, standard deviation, variance etc.

Data can be summarized and represented in an accurate way using charts, tables and graphs.

##### Example - Bargraph



Descriptive statistics provides us the tools to define our data in a most understandable and appropriate way.

##### Inferential Statistics –

It is about using data from sample and then making inferences about the larger population from which the sample is drawn. The goal of the inferential statistics is to draw conclusions from a sample and generalize them to the population. It determines the probability of the characteristics of the sample using probability theory. The most common methodologies used are hypothesis tests, Analysis of variance etc.

For example: Suppose we are interested to find out how many people liked this currency with in five years. But it is not feasible to take the statements of all over people from world. So now we will ask from of a

smaller sample of people, for example 100000 people. This sample will now represent the large population of people. We would consider this sample for our statistical study for studying the population from which it's deduced.