***Lab 8– Data Exploration***

1. The first 6 rows from *diamonds* data set and its structure are given below. Using this data set do the following tasks with the *ggplot2* package:

A screen shot of a computer

Description automatically generated

A picture containing outdoor

Description automatically generated

* 1. Study the distribution of the quality of the cut (*cut*).
  2. Study the distribution of the weight of the diamond (*carat*).
  3. Study the distribution of the weight of the diamond (*carat*) when the price (*price)* is more than 6000$.
  4. Study the relationship between the diamond’s weight (*carat*) and its price (*price).*
  5. Study the relationship between the quality of the cut (*cut*) and the diamond color (*color*)*.*
  6. Study the relationship between the quality of the cut (*cut*) and the price (*price).*

1. Create a new vector with the following data: 1,2,3,4,NA,6,7,8,NA,NA. NA means ‘Not Available’ / Missing Values. Use *min*, *max*, and *mean* functions to get the minimum, maximum, and average, respectively for this vector. Try using the argument *na.rm=TRUE* withthese three functionsand re-print the results.