1.Read the csv data file.

book\_data=read.csv(file=file.choose(),header = TRUE)

2.Display head of data

head(book\_data)

3.Display first n rows specified.

head(book\_data,n=10)

4.Display tail of data.

tail(book\_data)

5.Display n rows specified from bottom

tail(book\_data,n=10)

6.Determining Type of data class(book\_data)

7.Table command table(book\_data$rating)

table(book\_data$pages)

8.Determine the structure of data

str(book\_data)

9.Summarising the data

summary(book\_data)

10.Displaying Dimension of the data

dim(book\_data)

11.Displaying length of attack column

length(book\_data$rating)

12.Displaying column names of data

colnames(book\_data)

13.Displaying structure of some columns in the data

class(book\_data$Name)typeof(book\_data$Name)

14.Displaying type of some data structure in the data

typeof(book\_data$pages)

15.List of variables present in book data ls(book\_data)

16.Display 1st row and all colum6ns of data frame book\_data[1,]

17.Display all rows and 1st column of data frame

book\_data[,1]

18.Display data in 2nd row and 3rd column of the data frame

book\_data[2,3]

19.Display 1st and 2nd row and all columns book\_data[1:2,]

20.Display all rows and first 3 columns

book\_data[,3]

21.

22.Renaming a column in data frame temp\_book=book\_datanames(temp\_book)[names(temp\_book)=="Total"]<-"Total\_Number") temp\_book[1,]

23.Adding a new column to dataframe temp\_book[["New\_col"]]<-rep(c(1,2,3,4,5),209) temp\_book[1:10,]

24.Display Sum of Attack column sum(book\_data[9])

25.Display the maximum value of the rating column

max(book\_data[9])

26.Display the minimum value of the rating column

min(book\_data[4])

27.Attaching book data

attach(book\_data)

28.Now we can use variables inside book data min(pages)

tail(rating)

29.Sorting pages variable in ascending order

sort(pages)

30.Sorting pages variable in descending order sort(pages,decreasing = TRUE)

31.Detaching book data detach(book\_data)

32.Using with operator to use variables inside data with(book\_data,rating)

33.Finding median of data median(book\_data$rating)

34.Finding mean of data mean(book\_data$rating)

35.Finding standard deviation of data sd(book\_data$pages)

36.Finding variance of data var(book\_data$pages)

37.Order the price column in ascending order order(book\_data[9])

38.Order the rating column in descending order order(book\_data$rating,decreasing =TRUE)

39.Rank of rating column rank(book\_data$pages)

40.Rank of rating column with average as tie breaker rank(book\_data$rating,ties.method = "average")

41.Histogram ggplot(book\_data, aes(x = rating)) +geom\_histogram()

42.Histogram of rating column and its density ggplot(book\_data,aes(x=rating))+ geom\_histogram(fill="cornsilk",color="blue", size=0.2)+geom\_density(color="black")

43.Line graph of rating column and its density ggplot(book\_data,aes(x=pages))+ geom\_density(fill="blue",alpha=.4)

44.Line graph of rating column taking two alpha values ggplot(book\_data,aes(x=rating))+ geom\_line(stat="density")+ geom\_line(stat="density",adjust=0.25, color="red")+geom\_density(fill='blue',alpha=0.2)

45.Dot Plot library(ggplot2) ggplot(book\_data,aes(x=pages,y=reviews))+geom\_dotplot(binaxis="y",stackdir = "center", binwidth = 4,fill="green")

46.Box Plot ggplot(book\_data, aes(x=pages,y=rating))+geom\_boxplot(width=0.1,fill='black')+stat\_summary(func='median',fill='white',shape=21)

47.Density plot for review and rating ggplot(book\_data,aes(x=reviews,y=rating))+geom\_density2d(aes(colour=..level..))

48.Violin Plot Pages and rating ggplot(book\_data,aes(x=pages,y=rating))+geom\_violin()