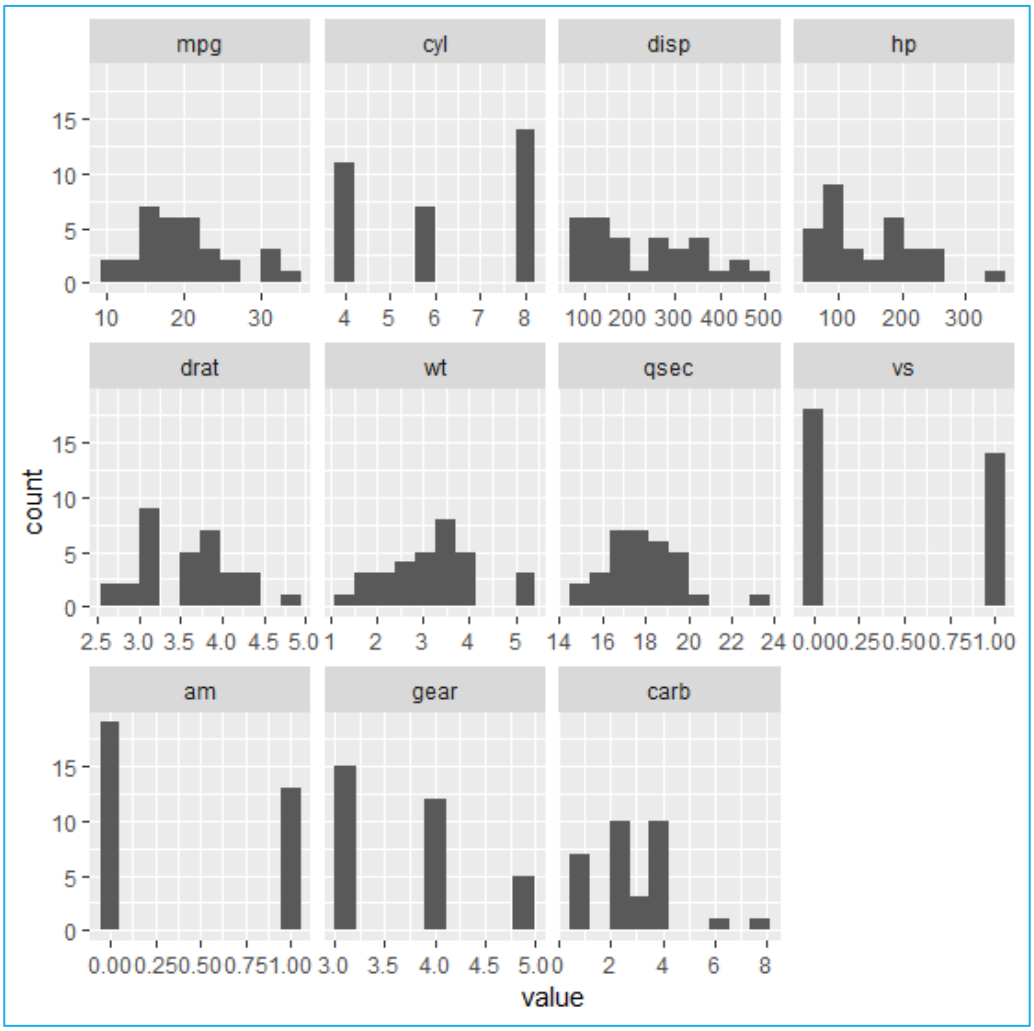
SESSION 7 – ASSIGNMENT 7.1

Date: 29th Jan 2019

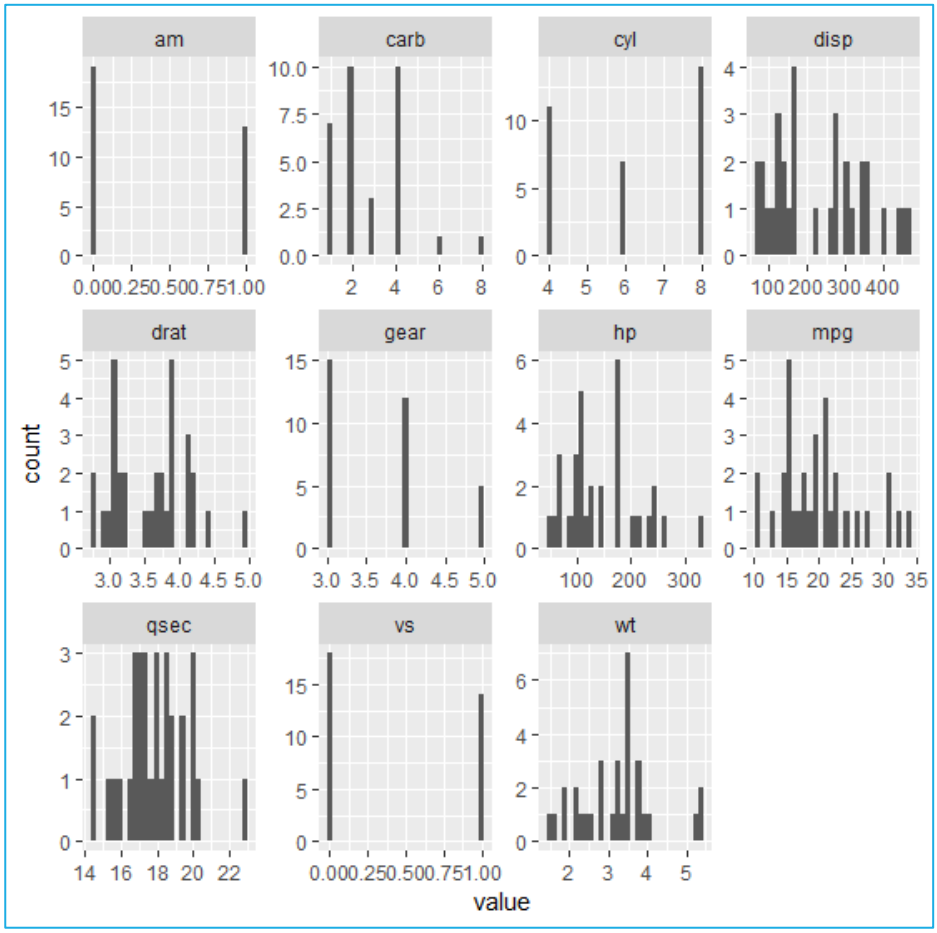
1. **Histogram for all variables in a dataset mtcars. Write a program to create histograms for all columns**

```
library(reshape2)
head(melt(mtcars))
library(ggplot2)
ggplot(data = melt(mtcars), mapping = aes(x = value)) +
   geom_histogram(bins = 10) + facet_wrap(~variable, scales = 'free_x')
```



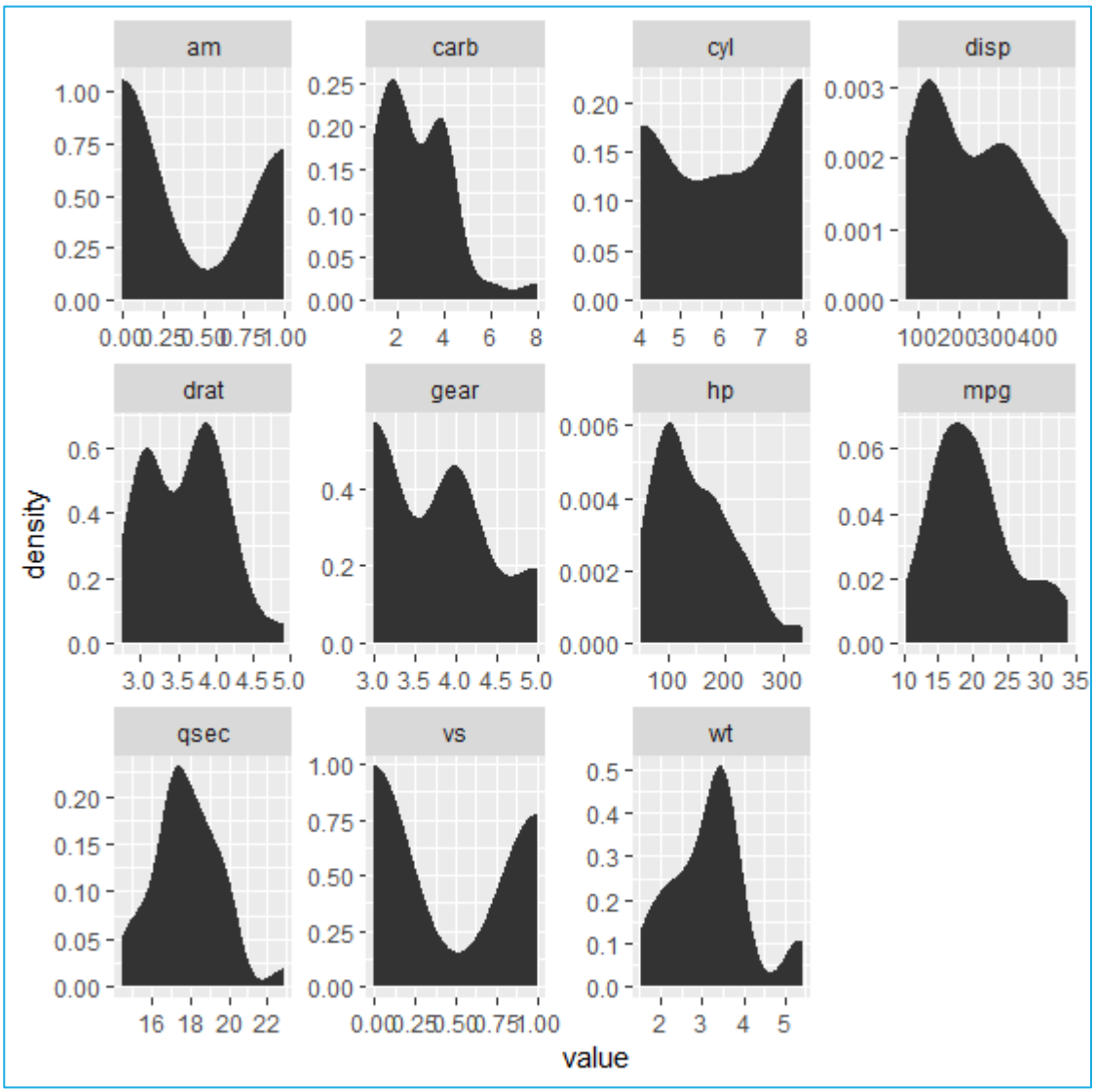
OR

```
library(purrr)
library(tidyr)
library(ggplot2)
mtcars %>%  keep(is.numeric) %>%  gather() %>% ggplot(aes(value)) +  facet_wrap(~ key,scales = "free") + geom_histogram()
```



2. Check the probability distribution of all variables in mtcars.

```
library(ggplot2)
mtcars %>%
  keep(is.numeric) %>%
  gather() %>%
  ggplot(aes(value)) +
  facet_wrap(~ key,scales = "free") +
  stat_density()
```



3. Write a program to create boxplot for all variables.

```
library(ggplot2)
library(reshape)
m1 <- melt(mtcars)
ggplot(m1,aes(x = variable,y = value)) + facet_wrap(~variable) + geom_boxplot()
```