

Homework 1

This homework is due by the posted date on edX. Please submit as a Markdown and pdf file.

In this homework you will be working with the `chickwts` dataset built into R. This data set contains weight measurements of chicks fed on different food sources to assess their effectiveness on growth rate.

chickwts

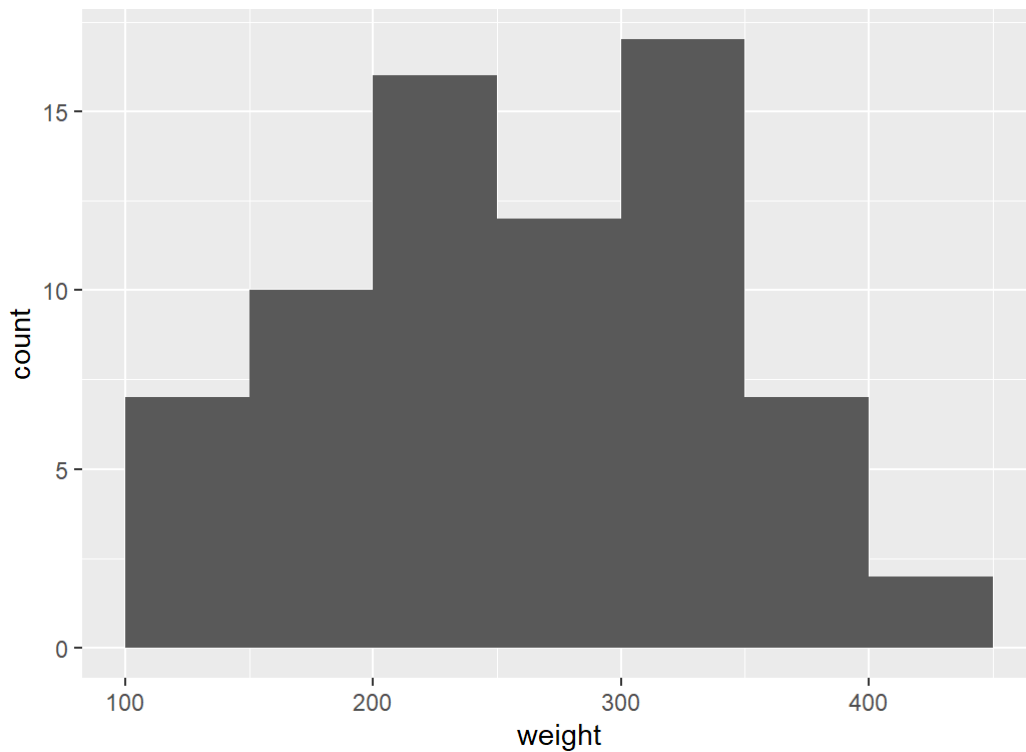
weight	feed
<dbl>	<fct>
179	horsebean
160	horsebean
136	horsebean
227	horsebean
217	horsebean
168	horsebean
108	horsebean
124	horsebean
143	horsebean
140	horsebean

1-10 of 71 rows

Previous123456...8Next

Problem 1: Use ggplot to make a histogram of the `weight` column. Manually choose appropriate values for `binwidth` and `center` . Explain your choice of values in 2-3 sentences.

```
ggplot(chickwts, aes(x=weight)) +  
  geom_histogram(  
    binwidth = 50,  
    center = 25  
  )
```



I experimented with different binwidth and center values but they were representing histogram in an incorrect way. (ie. 0-100 range there is no data but still for some binwidths it shows data).

For some other binwidths and centers, graph was becoming too narrow and was adding too much cognitive load to interpret the data.

For some, graph was showing multiple zero values.

Also, since the data-values were in the range of 100-430 and X-axis scale was in the steps of 100, I grouped it with the range of 100-150,150-200,200-250 and so on.

Considering all the above points, I finally decided to go with the choice binwidth = 50 and center = 25.

Problem 2: Modify the plot from Problem 1 to show one panel per feed. Hint: Use `facet_wrap()` .

```
ggplot(chickwts, aes(weight, fill = feed)) +
  geom_histogram(binwidth = 50, center = 25) +
  facet_wrap(vars(feed))
```

