DSA/ISE-5103

Assignment Submission Example

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About this template

This template is for you to hand in your homeworks with R Markdown. Some important remarks:

- You will find some useful commands especially in the code chucks. **Read the comments in the code chucks!** They are in the Rmd file attached to this PDF.
- This version is compilable only for PDF, but the commands in the code chucks work well for Word and HTML as well.
- If you want to use PDF, you need to download TeX. You can follow this link.

Problem 1: Using code chuncks

Embed the results in your conclusions / comments

Your answer can be as straightforward as the following: "The computed mean for the attribute hp is 146.69 and its standard deviation is 68.56. From this we can conclude that . . . "

Showing only results

If you want to show the results, but not the calculations (R code), then do the following:

```
##    0%   25%   50%   75%  100%
##  52.0  96.5 123.0 180.0 335.0
```

Showing only R code

If you want to show the R code because you think it's important, but not to evaluate it, then use *eval = FALSE*:

```
# Set eval to false to avoid evaluation the code chuck
scale_0to1 <- function(x){(x-min(x))/(max(x)-min(x))} # creating a function to scale from 0 to 1
```

Showing R code along with results

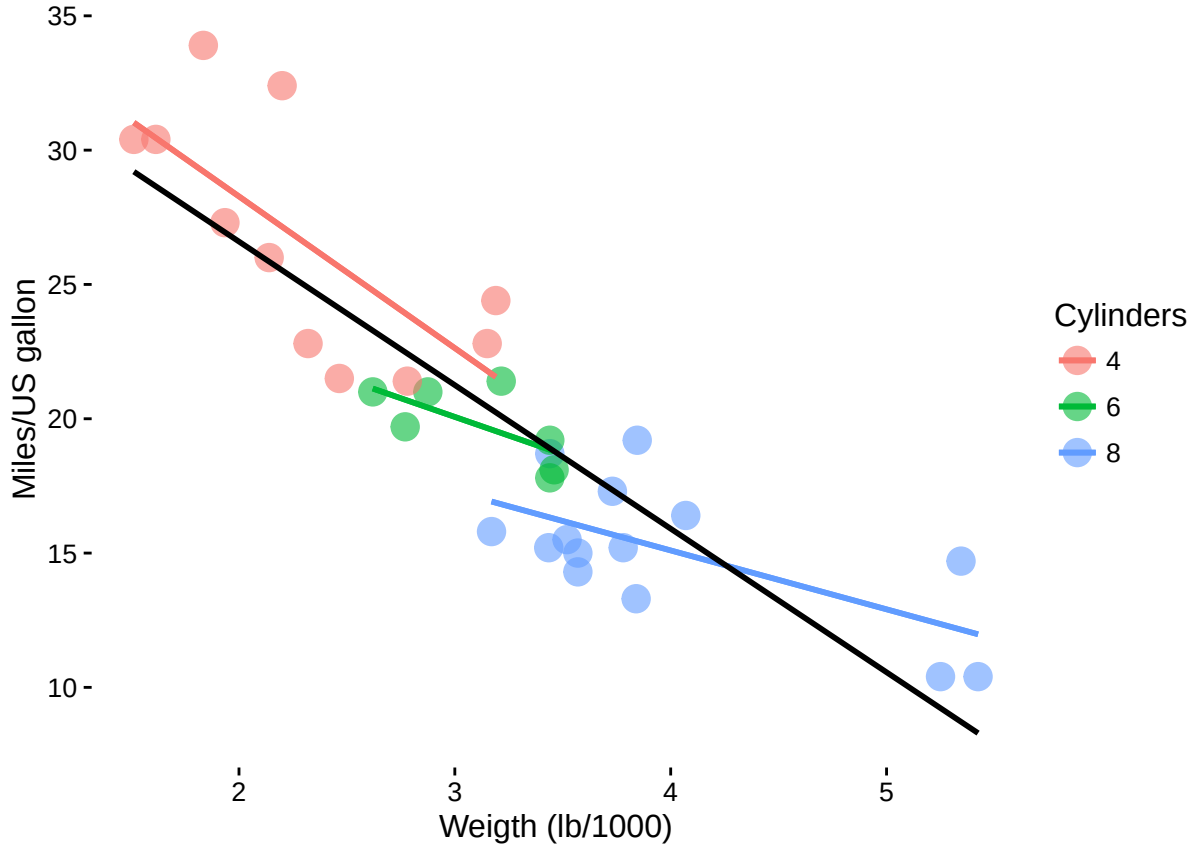
If you think some R code and results are needed to be remarked, set echo to TRUE and show it:

```
# By default your code and results will appear (not recommended)
glimpse(mtcars) # similar to str
```

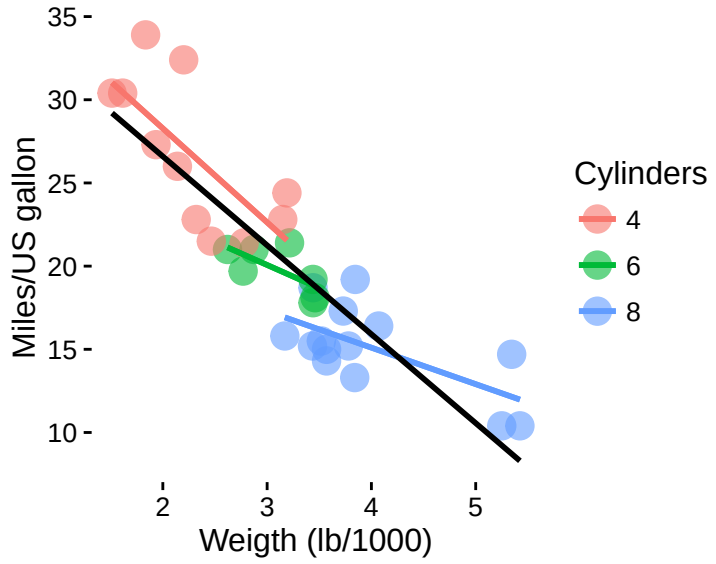
```
## Observations: 32
## Variables: 11
## $ mpg  <dbl> 21.0, 21.0, 22.8, 21.4, 18.7, 18.1, 14.3, 24.4, 22.8, 19....
## $ cyl  <dbl> 6, 6, 4, 6, 8, 6, 8, 4, 4, 6, 6, 8, 8, 8, 8, 8, 8, 4, 4, ...
## $ disp <dbl> 160.0, 160.0, 108.0, 258.0, 360.0, 225.0, 360.0, 146.7, 1...
## $ hp   <dbl> 110, 110, 93, 110, 175, 105, 245, 62, 95, 123, 123, 180, ...
## $ drat <dbl> 3.90, 3.90, 3.85, 3.08, 3.15, 2.76, 3.21, 3.69, 3.92, 3.9...
## $ wt   <dbl> 2.620, 2.875, 2.320, 3.215, 3.440, 3.460, 3.570, 3.190, 3...
## $ qsec <dbl> 16.46, 17.02, 18.61, 19.44, 17.02, 20.22, 15.84, 20.00, 2...
## $ vs   <dbl> 0, 0, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 1, 1, ...
## $ am   <dbl> 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, ...
## $ gear <dbl> 4, 4, 4, 3, 3, 3, 3, 4, 4, 4, 4, 3, 3, 3, 3, 3, 3, 4, 4, ...
## $ carb <dbl> 4, 4, 1, 1, 2, 1, 4, 2, 2, 4, 4, 3, 3, 3, 4, 4, 4, 1, 2, ...
```

Problem 2: Shrinking plots

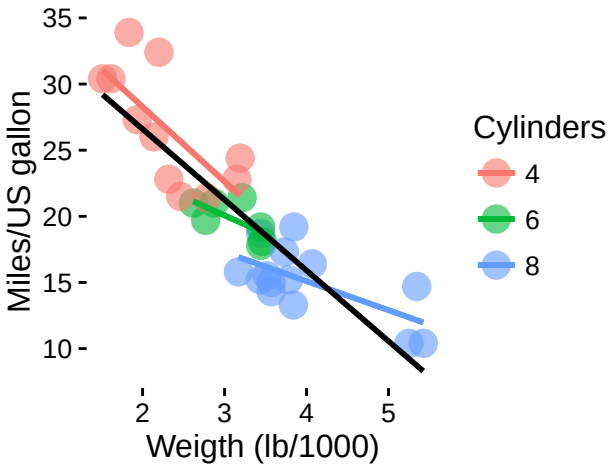
It's a common problem that your plots are going to be too big to fit in your report. Like the following plot:

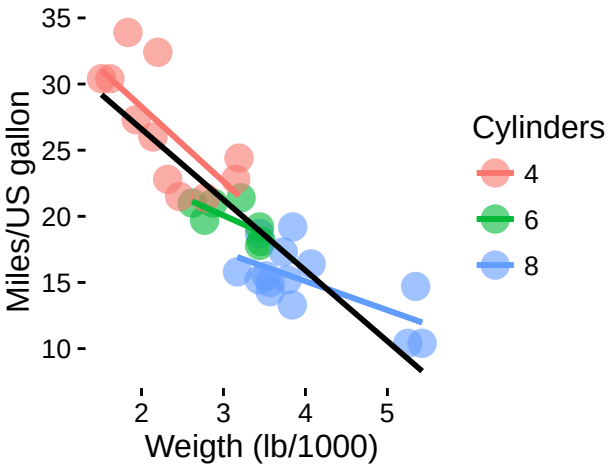


You can shrink the plot easily with the *fig* commands, and you'll have the following:



We can even make two plots fit in the same space (as two columns):





Now that you have the perfect plot in the suitable space, **do never forget to comment about it!** If you don't comment/use them for your analysis, then there is no purpose to keep them in your report.

Final remarks

- Your write-up does not have to contain unnecesary code. Save space for your analysis and results that help your analysis.
- Each piece of results or plot that you are presenting in the write-up should come along with some analysis.
- If you have several interesting results, use a table or something creative to show them.
- You do not have to use R Markdown. It's only one more option for you.
- Do not forget to submit your R code along with your write-up. If you used R Markdown, you are good to upload your .Rmd file instead of the .R file
- You can use this code to generate your PDF file and submit it along with your Rmd.
- If you use this template, we won't consider the front page in the 10 pages count.

Thank you for reading. Share it if was useful for you!