Collaborative working in Google Docs with R: introducing `roogledocs`.

Dr. Robert Challen, University of Bristol.

Abstract

This demonstration document uses a template to make some points about the diamonds dataset. The average cost of diamonds was 3932.8 ± 3989.4. That is all we have to say.

Background

Collaboration with google docs is easy. Importing the results of analysis from R is now possible thanks to `roogledocs` [1]. This is great.

Methods

Typically the methods section would not contain figures or tabular materials. We are using the diamonds data set from ggplot2.

Results

The diamonds data set has some interesting characteristics as shown in Table 1. Table captions and cross references are not the job of `roogledocs`, although you can probably hack it using tags. Since version 0.3.0 `roogledocs` does handle citations [2].

Table 1: this table was updated on 17/01/2024. It shows a description of the ggplot::diamonds data set (or at least it will when populated).

cut	colorCat	Size (mean + sd)	Cost (mean + sd)
Fair	D-G	0.93 ± 0.43	3997 ± 3312
	G-J	1.24 ± 0.58	4972 ± 3873
Good	D-G	0.78 ± 0.39	3620 ± 3380
	G-J	1.00 ± 0.54	4610 ± 4194
Very Good	D-G	0.72 ± 0.39	3587 ± 3666
	G-J	1.00 ± 0.54	4873 ± 4358
Premium	D-G	0.79 ± 0.44	4060 ± 4044
	G-J	1.11 ± 0.59	5633 ± 4732
Ideal	D-G	0.63 ± 0.36	3151 ± 3562
	G-J	0.88 ± 0.53	4233 ± 4273

In figure 1, we demonstrate that the cost varies by size. average cost of diamonds being 3932.8 ± 3989.4. This is the same number as in the abstract.

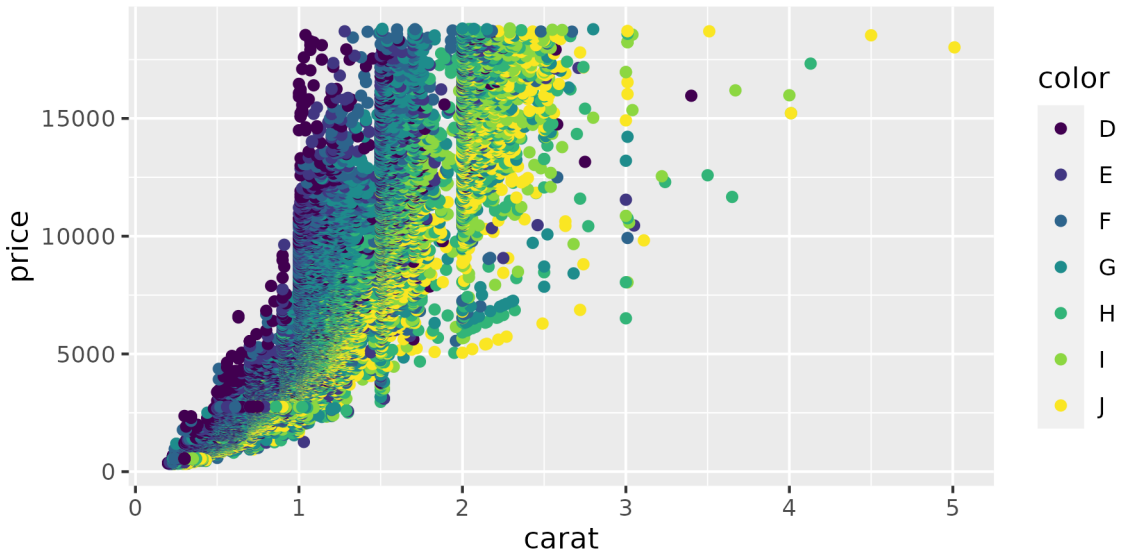

Figure 1 - some info about what figure 1 shows.

Figure 2 shows an alternative to the tag system for images. This is not recommended as the order of images changes as a document evolves. Like any good scientist I will cite myself again [3].

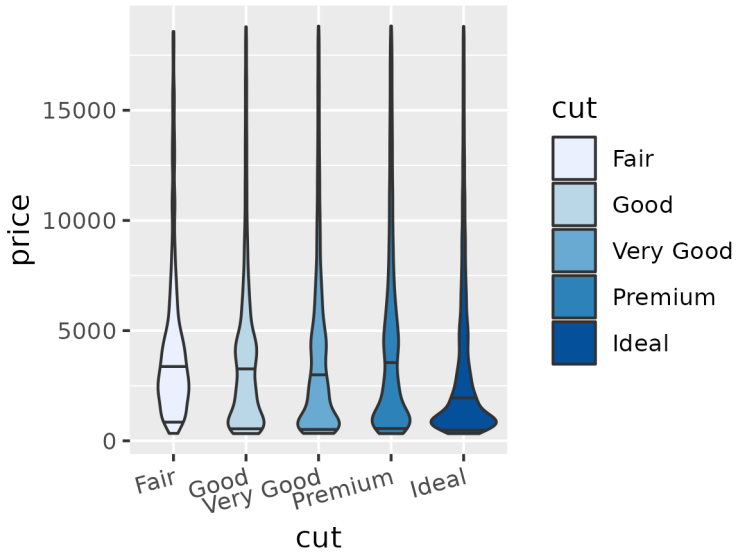

Figure 2 - This is another fascinating plot.

Discussion

This is all there is to it. `Roogledocs` is built in Java and the R integration is automatically generated by `r6-generator` [4]. Don't forget to cite us using the bibtex given to you by: `print(citation("roogledocs"), bibtex=TRUE)`

References

[1] R. Challen, roogledocs: R Wrapper For Googledocs Java Library. 2024.

[2] R. Challen, J. Denny, M. Pitt, L. Gompels, T. Edwards, and K. Tsaneva-Atanasova, “Artificial intelligence, bias and clinical safety,” BMJ Quality & Safety, vol. 28, Art. no. 3, Mar. 2019, doi: 10.1136/bmjqs-2018-008370.
[3] R. Challen et al., “Early epidemiological signatures of novel SARS-CoV-2 variants: establishment of B.1.617.2 in England,” Cold Spring Harbor Laboratory Press, University of Exeter, Jun. 2021.
[4] R. Challen, r6-generator: Code Generation Framework for using Java within R. 2022.

Adding new content

`Roogledocs` is also able to add text at the end of the document with complex formatting. Supporting fonts and font face formatting such as **bold,** *italic* and underlined amongst other things.