A Pandoc Markdown Article Template modified for R-Ladies Berlin *

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Contents

This document provides an introduction to R Markdown and presents a sample manuscript template intended for an academic audience. R-Ladies Berlin added some example plots to illustrate the power of R markdown and pandoc.

Keywords: pandoc, r markdown, knitr, R-Ladies Berlin

Introduction

Pandoc is a universial document converter.

Pandoc understands a number of useful markdown syntax extensions, including document metadata (title, author, date); footnotes; tables; definition lists; superscript and subscript; strikeout; enhanced ordered lists (start number and numbering style are significant); running example lists; delimited code blocks with syntax highlighting; smart quotes, dashes, and ellipses; markdown inside HTML blocks; and inline LaTeX. If strict markdown compatibility is desired, all of these extensions can be turned off.

Getting started

Installation

An extensive introduction to command line pandoc and installation recommendations are shown at Pandoc page.

In generell it requires the installation of a latex distribution for rendering pdf documents, e.g., Miktex.

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*Replication files are available on the author's Github account (http://github.com/svmiller). **Current version**: Juni 20, 2017; **Corresponding author**: svmille@clemson.edu.

YAML extensions

Optional extensions are listed in R markdown cheat sheet, e.g,

- author affiliations
- content tables
- bibliography
- abstract

An R code example

Let's include an example plot of the diamonds dataset and play with figure caption, size and table output formats.

The theme has been developed by Samantha Tyner for R-Ladies global. It modifies the general ggplot2 settings.

The following modifications are included: * text color changed to purple * bold axis description * grid color: grey * legend title: bold and purple * plot title: purple, bold, slightly bigger x1.4

```
library(ggplot2)

#make plots nicer
# R-Ladies ggplot2 theme from Samantha Tyner

r_ladies_theme <- function(base_size){
  theme_bw(base_size) %+replace%
    theme(axis.text = element_text(colour = "#181818"),
          axis.title = element_text(face = "bold",
              colour = "#88398A", size = rel(1.1)),
          plot.title = element_text(face = "bold", size = rel(1.4),
                      colour = "#181818",
                      margin = margin(t = 0, r = 0, b = 6.6,
                      l = 0, unit = "pt")),
          legend.title = element_text(face = "bold", colour = "#181818"),
          panel.grid.major = element_line(color = "#D3D3D3"))
}

theme_set(r_ladies_theme(base_size = 10))
```

Let's create a simple plot based on the diamonds dataset. If you want to know more about the dataset have a look ??diamonds.

```
ggplot(diamonds, aes(cut, price, color = cut))+
  geom_jitter()+
  ylab('Price in ($)')+
  xlab('Cut class')
```

Here you can see how to print beautiful tables. Check out the different formats: markdown, html, latex, pandoc or rst.

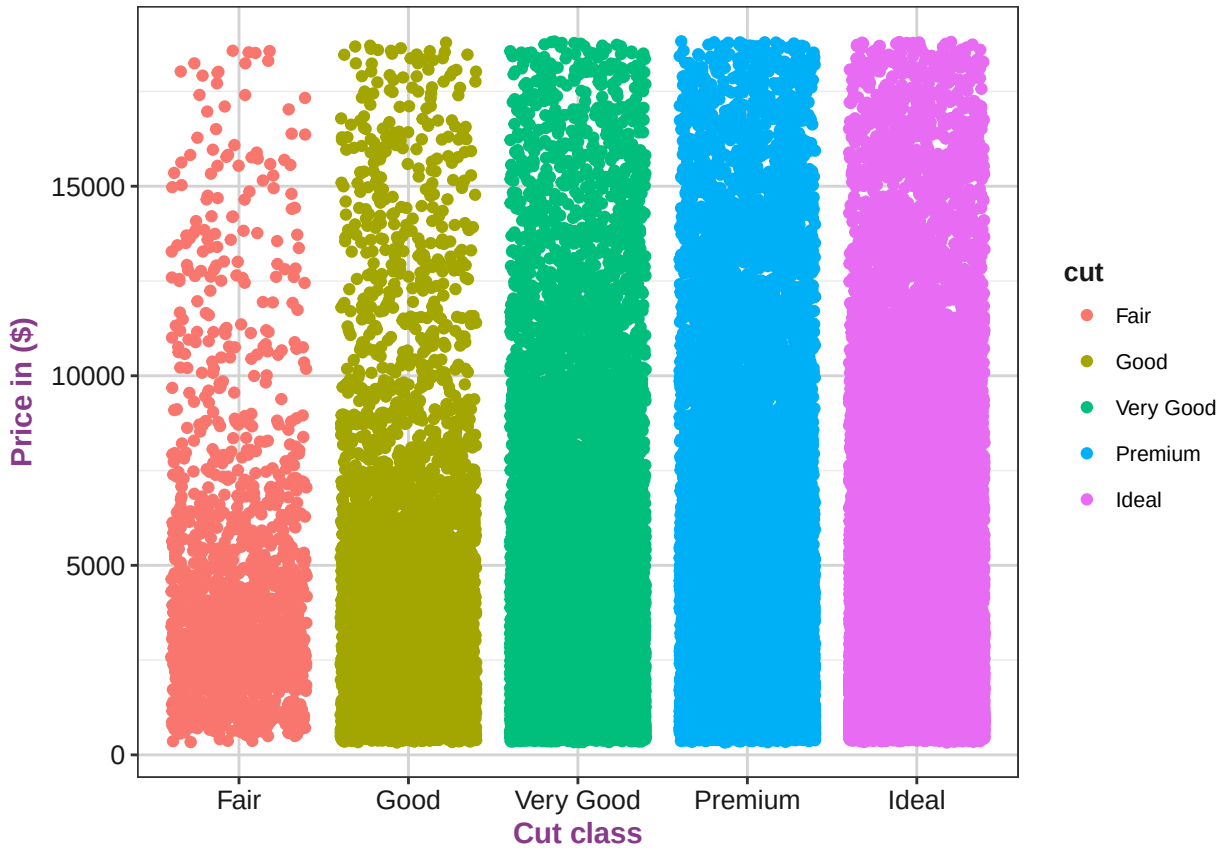

Figure 1: Example plot of diamonds data illustrating the price of diamonds per cut.

Table 1: Just the first rows of the dataset diamonds

carat	cut	color	clarity	depth	table	price	x	y	z
0.23	Ideal	E	SI2	61.5	55	326	3.95	3.98	2.43
0.21	Premium	E	SI1	59.8	61	326	3.89	3.84	2.31
0.23	Good	E	VS1	56.9	65	327	4.05	4.07	2.31
0.29	Premium	I	VS2	62.4	58	334	4.20	4.23	2.63
0.31	Good	J	SI2	63.3	58	335	4.34	4.35	2.75
0.24	Very Good	J	VVS2	62.8	57	336	3.94	3.96	2.48