Colortable

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## {{colortable}}

Examples of {{colortable}} in action!

library(colortable)  
library(tidyverse)  
library(knitr)

cell\_sample <- color\_vctr(24, text\_color = "red", background = "blue")  
cell\_sample2 <- color\_vctr(42, background = "yellow")  
cell\_sample3 <- color\_vctr(68, text\_color = "magenta", style = "strikethrough")  
cell\_sample4 <- color\_vctr(70, text\_color = "green")  
  
cell\_sample

## [1] 24

cell\_sample2

## [1] 42

cell\_sample3

## [1] ~~68~~

cell\_sample4

## [1] 70

vect\_sample <- color\_vctr(cell\_sample, cell\_sample2, cell\_sample3, cell\_sample4)  
vect\_sample

## [1] 24 42 ~~68~~ 70

vect\_sample2 <- vect\_sample  
vect\_sample2[5] <- 422  
vect\_sample2[20] <- color\_vctr(98119, text\_color = "yellow", background = "blue", style = "underline")  
vect\_sample2[6:7] <- c(21,23)  
vect\_sample2[10:12] <- color\_vctr(cell\_sample, cell\_sample2, cell\_sample3)  
  
vect\_sample2

## [1] 24 42  ~~68~~ 70 422 21 23 24 42  ~~68~~

## [13] 98119

data.frame(idx = 1:5, z = vect\_sample[1:5])

|  |  |
| --- | --- |
| idx | z |
| 1 | 24 |
| 2 | 42 |
| 3 | ~~68~~ |
| 4 | 70 |
| 5 |  |

color\_tibble <- tibble(idx = 1:5, z = vect\_sample[1:5])   
  
color\_tibble

|  |  |
| --- | --- |
| idx | z |
| 1 | 24 |
| 2 | 42 |
| 3 | ~~68~~ |
| 4 | 70 |
| 5 |  |

color\_tibble %>%   
 kable(escape = FALSE)

|  |  |
| --- | --- |
| idx | z |
| 1 | 24 |
| 2 | 42 |
| 3 | ~~68~~ |
| 4 | 70 |
| 5 |  |

## Use Cases

The ability to update coloring within the table allows for visualizing the results before printing and rendering.

One use case could be trying to print out p-values and drawing attention to the significant pvalues.

Normally, the course of action would be to manually add either the latex or html required to tag the outputs. This requires both knowing how to tag the significant pvalues with the correct latex/html code and also hard codes those results into your code.

## Super Great analysis of mtcars!  
  
lm\_fit <- lm(mpg ~ ., mtcars)  
  
a\_lm\_fit <- anova(lm\_fit)  
  
df\_anova <- data.frame(a\_lm\_fit)  
  
# if the output is pdf  
df\_anova$Pr..F. <- ifelse(  
 df\_anova$Pr..F. < .05,  
 paste0("\\textcolor{green}{",df\_anova$Pr..F.,"}"),  
 df\_anova$Pr..F.  
)  
  
kable(df\_anova)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Df | Sum.Sq | Mean.Sq | F.value | Pr..F. |
| cyl | 1 | 817.7129524 | 817.7129524 | 116.4245456 |  |
| disp | 1 | 37.5939529 | 37.5939529 | 5.3525615 |  |
| hp | 1 | 9.3709293 | 9.3709293 | 1.3342166 | 0.261031043915007 |
| drat | 1 | 16.4674349 | 16.4674349 | 2.3446047 | 0.140643762276576 |
| wt | 1 | 77.4757948 | 77.4757948 | 11.0308687 |  |
| qsec | 1 | 3.9493082 | 3.9493082 | 0.5622956 | 0.461655702242183 |
| vs | 1 | 0.1297687 | 0.1297687 | 0.0184762 | 0.893173302477966 |
| am | 1 | 14.4742372 | 14.4742372 | 2.0608167 | 0.165857678951404 |
| gear | 1 | 0.9717105 | 0.9717105 | 0.1383504 | 0.71365333783354 |
| carb | 1 | 0.4066688 | 0.4066688 | 0.0579008 | 0.812178712952693 |
| Residuals | 21 | 147.4944300 | 7.0235443 | NA | NA |

{{colortable}} can resolve this and make your code much easier to understand, and you can add additional styling just as easily. There is also the added benefit that even though we have styling on the cells, the underlying object type still exists and can be modified and edited as needed.

tbl\_anova <- data.frame(a\_lm\_fit)  
  
tbl\_anova$Pr..F. <-   
 set\_styling(tbl\_anova$Pr..F. , tbl\_anova$Pr..F. < 0.05, text\_color = "green", style = "underline")  
  
tbl\_anova

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Df | Sum.Sq | Mean.Sq | F.value | Pr..F. |
| cyl | 1 | 817.7129524 | 817.7129524 | 116.42454564 | 5.034450e-10 |
| disp | 1 | 37.5939529 | 37.5939529 | 5.35256153 | 3.091083e-02 |
| hp | 1 | 9.3709293 | 9.3709293 | 1.33421658 | 2.610310e-01 |
| drat | 1 | 16.4674349 | 16.4674349 | 2.34460470 | 1.406438e-01 |
| wt | 1 | 77.4757948 | 77.4757948 | 11.03086869 | 3.244492e-03 |
| qsec | 1 | 3.9493082 | 3.9493082 | 0.56229561 | 4.616557e-01 |
| vs | 1 | 0.1297687 | 0.1297687 | 0.01847624 | 8.931733e-01 |
| am | 1 | 14.4742372 | 14.4742372 | 2.06081667 | 1.658577e-01 |
| gear | 1 | 0.9717105 | 0.9717105 | 0.13835045 | 7.136533e-01 |
| carb | 1 | 0.4066688 | 0.4066688 | 0.05790079 | 8.121787e-01 |
| Residuals | 21 | 147.4944300 | 7.0235443 | NA |  |