Beamer in R Markdown Highlights

CMDA GTAs

11/12/2018

R Markdown

This is an R Markdown presentation. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document.

Slide with Bullets

- Bullet 1
- ▶ Bullet 2
- ▶ Bullet 3

Alternative Way Using Asterics

- ► Bullet 4
- ► Bullet 5

Slide with R Output

summary(cars)

```
##
       speed
                      dist
   Min. : 4.0
##
                 Min. : 2.00
##
   1st Qu.:12.0
                 1st Qu.: 26.00
##
   Median:15.0
                 Median: 36.00
                 Mean : 42.98
##
   Mean :15.4
##
   3rd Qu.:19.0
                 3rd Qu.: 56.00
   Max. :25.0
                 Max. :120.00
##
x=4
y=5
x+y
```

Table in 2 Ways

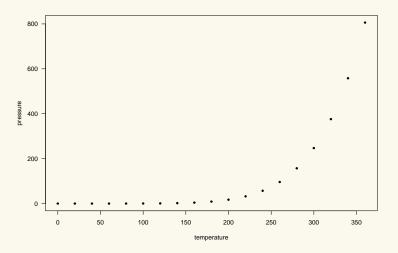
Example	Table	in	HTML	
1	2	3	4	

knitr::kable(mtcars[1:5,1:7], caption='A Knitr Table')

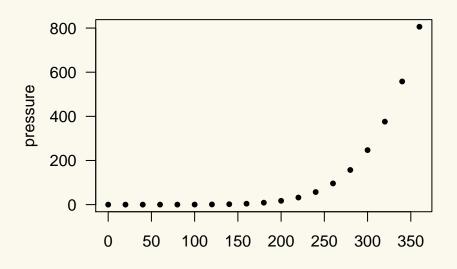
Table 2: A Knitr Table

	mpg	cyl	disp	hp	drat	wt	qsec
Mazda RX4	21.0	6	160	110	3.90	2.620	16.46
Mazda RX4 Wag	21.0	6	160	110	3.90	2.875	17.02
Datsun 710	22.8	4	108	93	3.85	2.320	18.61
Hornet 4 Drive	21.4	6	258	110	3.08	3.215	19.44
Hornet Sportabout	18.7	8	360	175	3.15	3.440	17.02

Slide with Plot (No Special Arguments)

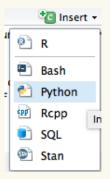


Slide with Plot (With Special Arguments)



Insert an Image

Other languages can be accessed from R studio by:



Other Language Engines

Many other languages are also supported in R markdown, e.g., Python, Julia, C++, and SQL.

```
names(knitr::knit_engines$get())
```

```
[1] "awk"
                                   "coffee"
##
                      "bash"
                                                 "gawk"
                                                              "groovy"
    [6]
##
        "haskell"
                      "lein"
                                   "mysql"
                                                 "node"
                                                              "octave"
   [11]
        "perl"
                      "psql"
                                   "Rscript"
                                                 "ruby"
                                                              "sas"
   [16] "scala"
                      "sed"
                                   "sh"
                                                 "stata"
                                                              "zsh"
##
                      "Rcpp"
                                                 "dot"
                                                              "c"
   [21] "highlight"
                                   "tikz"
   [26]
        "fortran"
                                                 "cat"
                                                              "asis"
                      "fortran95"
                                   "asv"
   Γ31]
                                   "block2"
        "stan"
                      "block"
                                                 "js"
                                                              "css"
   [36] "sql"
                                   "python"
                      "go"
                                                 "julia"
```

Python in R Markdown

```
x = 'Hello, CMDA students !'
print(x.split(' '))
## ['Hello,', 'CMDA', 'students', '!']
```

For more information:

- https://bookdown.org/yihui/rmarkdown/language-engines.html
- https: //blog.rstudio.com/2018/03/26/reticulate-r-interface-to-python/