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Class Demonstration

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Outline

1 Intro

2 Using R

3 RMarkdown Examples

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Slide with bullets

- Bullet 1
- Bullet 2
- Bullet 3

Use \alert to **highlight** some text

Some enumeration

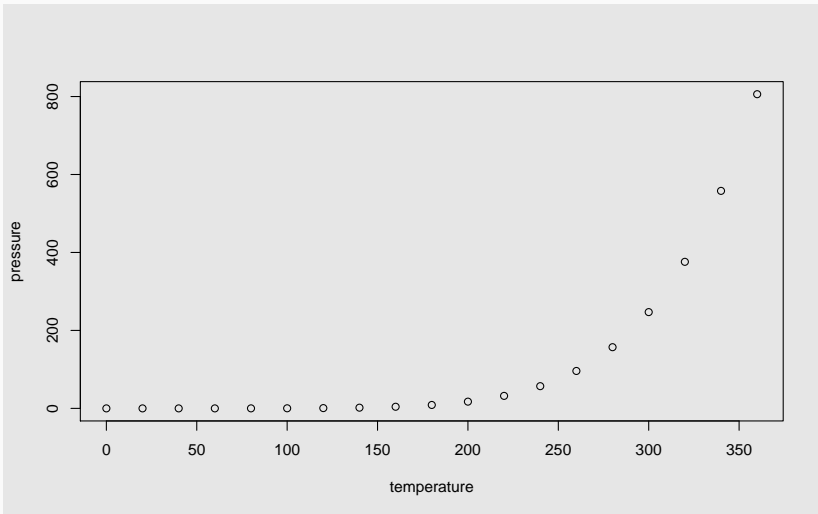1. The first item
2. Stuff
3. Nonsense

Outline

Slide with R output

```r
summary(cars)
```

```
##     speed           dist
##  Min.   : 4.0   Min.   :  2
##  1st Qu.:12.0   1st Qu.: 26
##  Median :15.0   Median : 36
##  Mean   :15.4   Mean   : 43
##  3rd Qu.:19.0   3rd Qu.: 56
##  Max.   :25.0   Max.   :120
```

Slide with graphics

Slide with mathematics

Quantile score for observation y. For $0 < p < 1$:

$$S(y_t, q_t(p)) = \begin{cases} p(y_t - q_t(p)) & \text{if } y_t \geq q_t(p) \\ (1 - p)(q_t(p) - y_t) & \text{if } y_t < q_t(p) \end{cases}$$

Average score over all percentiles gives the best distribution forecast:

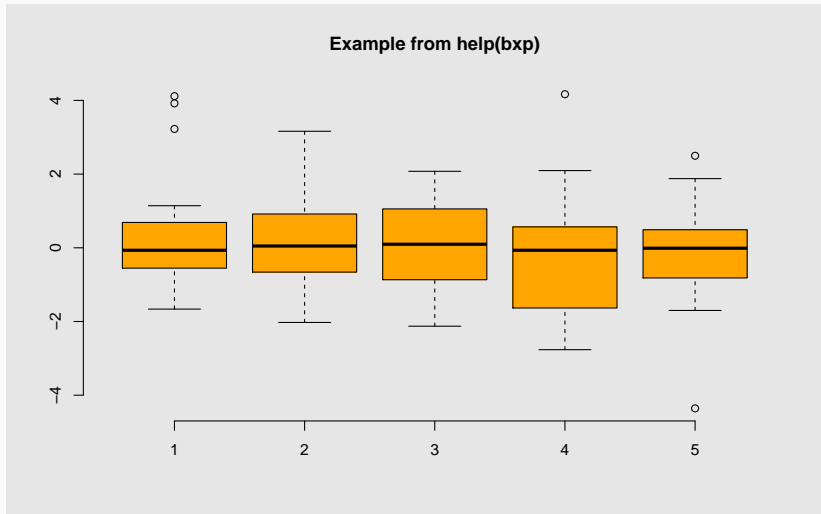$$QS = \frac{1}{99T} \sum_{p=1}^{99} \sum_{t=1}^{T} S(q_t(p), y_t)$$

Outline

R Figure

The following code generates the plot on the next slide (taken from `help(bxp)` and modified slightly):

```
library(stats)
set.seed(753)
bx.p <- boxplot(split(rt(100, 4),
                      gl(5, 20)), plot=FALSE)
bxp(bx.p, notch = FALSE, boxfill = "orange",
    frame = FALSE, outl = TRUE,
    main = "Example from help(bxp)")
```

R Figure

Example from help(bxp)

R Table

A simple `knitr::kable` example:

```r
knitr::kable(mtcars[1:4, 1:7],
        caption="(Parts of) the mtcars dataset")
```

Table 1: (Parts of) the mtcars dataset

	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

Resources

For more information:

- See the RMarkdown repository for more on RMarkdown
- See the binb repository for more on binb
- See the binb vignettes for more examples.