Using knit_expand() for templates

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January 27, 2016

Contents

1 Write one row of data

Only the first two sections are evaluated.

1.1 Now i is 1

This chunk is evaluated.

```
# row number 1
iris[1, ]
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
```

1.2   Now i is 2

This chunk is evaluated.

```
# row number 2
iris[2, ]
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 2          4.9           3          1.4         0.2  setosa
```

1.3   Now i is 3

This chunk is not evaluated.

```
# row number 3
iris[3, ]
```

1.4   Now i is 4

This chunk is not evaluated.

```
# row number 4
iris[4, ]
```

1.5   Now i is 5

This chunk is not evaluated.

```
# row number 5
iris[5, ]
```

2   A regression model on several variables

You can expand a template file, or just provide the template as a character string.

```r
# the template
tpl = c("\\subsection{Regression on {{xvar}}}",
        "<<lm-{{xvar}}>>=",
        "lm(mpg~{{xvar}}, data=mtcars)",
        "@")
# expand to knitr source and pass to knit()
src = lapply(names(mtcars)[-1], function(xvar) {knit_expand(text = tpl)})
```

2.1 Regression on cyl

```r
lm(mpg~cyl, data=mtcars)
```

```
##
## Call:
## lm(formula = mpg ~ cyl, data = mtcars)
##
## Coefficients:
## (Intercept)          cyl
##      37.885       -2.876
```

2.2 Regression on disp

```r
lm(mpg~disp, data=mtcars)
```

```
##
## Call:
## lm(formula = mpg ~ disp, data = mtcars)
##
## Coefficients:
## (Intercept)         disp
##    29.59985     -0.04122
```

2.3 Regression on hp

```r
lm(mpg~hp, data=mtcars)
```

```
##
## Call:
## lm(formula = mpg ~ hp, data = mtcars)
##
```

```
## Coefficients:
## (Intercept)              hp
##    30.09886        -0.06823
```

2.4 Regression on drat

```
lm(mpg~drat, data=mtcars)

##
## Call:
## lm(formula = mpg ~ drat, data = mtcars)
##
## Coefficients:
## (Intercept)          drat
##      -7.525         7.678
```

2.5 Regression on wt

```
lm(mpg~wt, data=mtcars)

##
## Call:
## lm(formula = mpg ~ wt, data = mtcars)
##
## Coefficients:
## (Intercept)            wt
##      37.285        -5.344
```

2.6 Regression on qsec

```
lm(mpg~qsec, data=mtcars)

##
## Call:
## lm(formula = mpg ~ qsec, data = mtcars)
##
## Coefficients:
## (Intercept)          qsec
##      -5.114         1.412
```

2.7 Regression on vs

```
lm(mpg~vs, data=mtcars)

##
## Call:
## lm(formula = mpg ~ vs, data = mtcars)
##
## Coefficients:
## (Intercept)           vs
##       16.62         7.94
```

2.8 Regression on am

```
lm(mpg~am, data=mtcars)

##
## Call:
## lm(formula = mpg ~ am, data = mtcars)
##
## Coefficients:
## (Intercept)           am
##      17.147        7.245
```

2.9 Regression on gear

```
lm(mpg~gear, data=mtcars)

##
## Call:
## lm(formula = mpg ~ gear, data = mtcars)
##
## Coefficients:
## (Intercept)         gear
##       5.623        3.923
```

2.10 Regression on carb

```
lm(mpg~carb, data=mtcars)
```

```
##
## Call:
## lm(formula = mpg ~ carb, data = mtcars)
##
## Coefficients:
## (Intercept)          carb
##      25.872        -2.056
```

3 Multiple variables

```
tpl = 'The value of a is {{a}} and b is {{b}}.'
```

The value of a is 1 and b is 2.
The value of a is 5 and b is 2013.