

demo

In R

This file demonstrates how to use the stattotex package.

First, we install and set up the package from GitHub.

```
library(devtools)
devtools::install_github("ijyliu/stattotex-R")
#> -- R CMD build -----
#>      v checking for file 'C:\Users\ijyli\AppData\Local\Temp\RtmpS69vr0\remotes3b145a5362a0\ijyliu-
#>      - preparing 'stattotex': (393ms)
#>      checking DESCRIPTION meta-information ... v checking DESCRIPTION meta-information
#>      - excluding invalid files (401ms)
#>      Subdirectory 'demo' contains invalid file names:
#>      'Demo Report.pdf' 'Demo Report.tex' 'demo.Rmd' 'demo.html'
#>      'demoNums.tex'
#>      - checking for LF line-endings in source and make files and shell scripts
#> - checking for empty or unneeded directories
#>      Removed empty directory 'stattotex/demo'
#>      Omitted 'LazyData' from DESCRIPTION
#>      - building 'stattotex_0.1.0.tar.gz'
#>
#>
library(stattotex)
```

Suppose we had some calculated statistic/variable. For example, we could compute average monthly sales for a product over the previous quarter. Suppose that this statistic takes on the value of 2,532.01 units.

```
number <- 2532.01
```

Let us now save this number to the file “demoNums.tex” with the name “AvgMonthlySales”. We can use the setting `clear_file=TRUE` to delete the file before writing to it.

```
stattotex(variable_name="AvgMonthlySales",
           variable_value=number,
           filename="demoNums.tex",
           clear_file=TRUE)
```

Let's say we wish to format this as 2,532.01. We can directly format the number as a string, and feed strings to stattotex.

```
f_number <- formatC(number, format = "f", digits = 2, big.mark = ",")
```

This function call will update the value of the number for LaTeX.

```
stattotex("AvgMonthlySales", f_number, "demoNums.tex")
```

stattotex will accept arbitrary string inputs. Let's say our sales increased by 100.3% from the previous quarter

```
pct <- 100.3
pct_string <- paste0(as.character(pct), "%")
stattotex("SaleIncPct", pct_string, "demoNums.tex")
```

and we want to say that the sales increased/decreased/stayed the same based on the percentage

```
if (pct > 0.0) {
  word <- "increased"
} else if (pct == 0.0) {
  word <- "stayed the same"
} else {
  word <- "decreased"
}
stattotex("SaleDir", word, "demoNums.tex")
```

In LaTeX

We can now compile a document making use of these numbers. Check out the `Demo Report.tex` file in this folder, and the associated `Demo Report.pdf` created.

```
install.packages('tinytex', repos = "https://cloud.r-project.org")
#> package 'tinytex' successfully unpacked and MD5 sums checked
#>
#> The downloaded binary packages are in
#> C:\Users\ijyli\AppData\Local\Temp\RtmpS69vr0\downloaded_packages
if (!tinytex::is_tinytex()) {
  tinytex::install_tinytex()
}
tinytex::pdflatex('Demo Report.tex')
#> [1] "Demo Report.pdf"
```