

gKnit - Ruby and R Knitting with Galaaz

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Introduction

The idea of “literate programming” was first introduced by Donald Knuth in the 1980’s. The main intention of this approach was to develop code and at the same time document it is as understandable as possible to humans. According to Knuth “The practitioner of literate programming can be regarded as an essayist, whose main concern is with exposition and excellence of style.”

The idea of literate programming evolved into the idea of reproducible research, in which all the data, information, documentation needed to reproduce a research is included in a single document that can be distributed to peers and that can rerun the research obtaining the same results. Today, two of the most well known environments for reproducible research are Jupyter Notebooks (formerly known as iPython Notebook) which focus, as the name implies to Python developers, and Knitr for R developers.

gKnitting a Document

```
require_relative 'model'
```

```
##           mpg cyl  disp  hp drat   wt  qsec vs am gear carb
## Datsun 710    22.8   4 108.0  93 3.85 2.320 18.61  1  1   4    1
## Hornet 4 Drive 21.4   6 258.0 110 3.08 3.215 19.44  1  0   3    1
## Hornet Sportabout 18.7   8 360.0 175 3.15 3.440 17.02  0  0   3    2
## Merc 240D     24.4   4 146.7  62 3.69 3.190 20.00  1  0   4    2
## Merc 280      19.2   6 167.6 123 3.92 3.440 18.30  1  0   4    4
## Merc 280C     17.8   6 167.6 123 3.92 3.440 18.90  1  0   4    4
##           mpg cyl  disp  hp drat   wt  qsec vs am gear carb
## Mazda RX4     21.0   6 160.0 110 3.90 2.620 16.46  0  1   4    4
## Mazda RX4 Wag 21.0   6 160.0 110 3.90 2.875 17.02  0  1   4    4
## Valiant       18.1   6 225.0 105 2.76 3.460 20.22  1  0   3    1
## Duster 360    14.3   8 360.0 245 3.21 3.570 15.84  0  0   3    4
## Merc 230      22.8   4 140.8  95 3.92 3.150 22.90  1  0   4    2
## Merc 450SE    16.4   8 275.8 180 3.07 4.070 17.40  0  0   3    3
```