R Markdown with Other Engines

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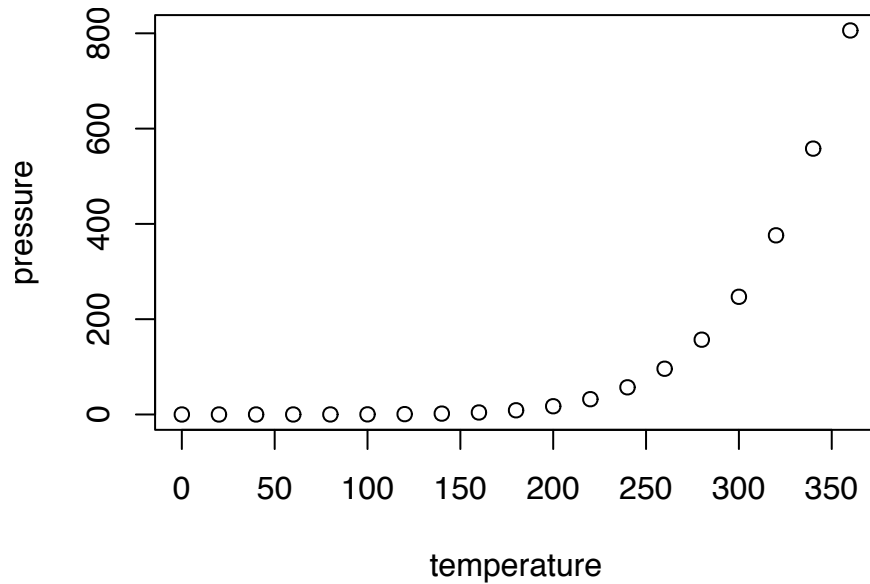
List of Figures

Figure S1: Relationship between temperature and presure

S1 R Markdown

S1.1 Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

S1.1.1 subsubsection

```
summary(cars)
```

S2 Python code chunk

S2.1 Access objects between R and Python

S2.1.1 py$x in r chunk vs. r.x in python chunk

- Access to objects created within Python chunks from R using the py object (e.g. py$x would access an x variable created within Python from R).

- Access to objects created within R chunks from Python using the r object (e.g. r.x would access to x variable created within R from Python)

```
x = 'hello, python world!'
print(x.split(' '))
```

```
['hello,', 'python', 'world!']
```

```
# source the python script
# source_python("flights.py")
# py_install("pandas")

# using py$x to inherit a python object
```

```
newvar = paste(py$x, "add R")
print(newvar)
```

```
[1] "hello, python world! add R"
# using r.x to access an R object
print(r.newvar)
```

```
hello, python world! add R
```

S3 C++ code chunk

```cpp
#include <Rcpp.h>
using namespace Rcpp;
// [[Rcpp::export]]
NumericVector timesTwo(NumericVector x) {
  return x * 2;
}
```

```r
out = timesTwo(10) # test function in R chunk or console
out
```

```
[1] 20
```

S4 Julia code chunk

It seems that Julia code can be inherited across different chunks. This is one big advantage!

S5 Bash script

Note: Bash script in one chunk **cannot** be inherited by another chunk!

```bash
echo "Hello Bash"
```

```
Hello Bash
```

```bash
FILE='bash_name'
echo $FILE
```

```
bash_name
```

S6 Stan code chunk

We can assign the stan code to a variable ($model1$), and can use this later in the R code chunk.