RMarkdown

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Installation

```
install.packages("rmarkdown")
```

Syntax

Headers

```
# Header 1
```

Header 1

```
## Header 2
```

Header 2

```
### Header 3
```

Header 3

```
#### Header 4
```

Header 4

```
##### Header 5
```

Header 5

```
###### Header 6
```

Header 6

Text Styles

```
> block quote
```

> block quote

```
endash: --
```

endash: –

`emdash: ---`

emdash: —

`inline equation ($LaTeX$): $A = \pi*r^{2}$`

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Images

`image: ![](https://s-media-cache-ak0.pinimg.com/originals/1d/96/13/1d96138537ae93c28554fa623f56a527.gif`

image: 

Lists

```
* unordered list
* number 2
  + sub-item (four spaces)
```

- unordered list
- number 2
    - sub-item (four spaces)

```
1. ordered list
2. item 2
    + sub-item (four spaces)
```

1. ordered list
2. item 2
    - sub-item (four spaces)

Code

```
Here's a piece of `inline code` to look at.
```

Here's a piece of `inline code` to look at.

````
```
Code chunks are delineated by three backticks
```
````

```
# R Code goes here!!
```

```
# This will generate output
summary(cars)
```

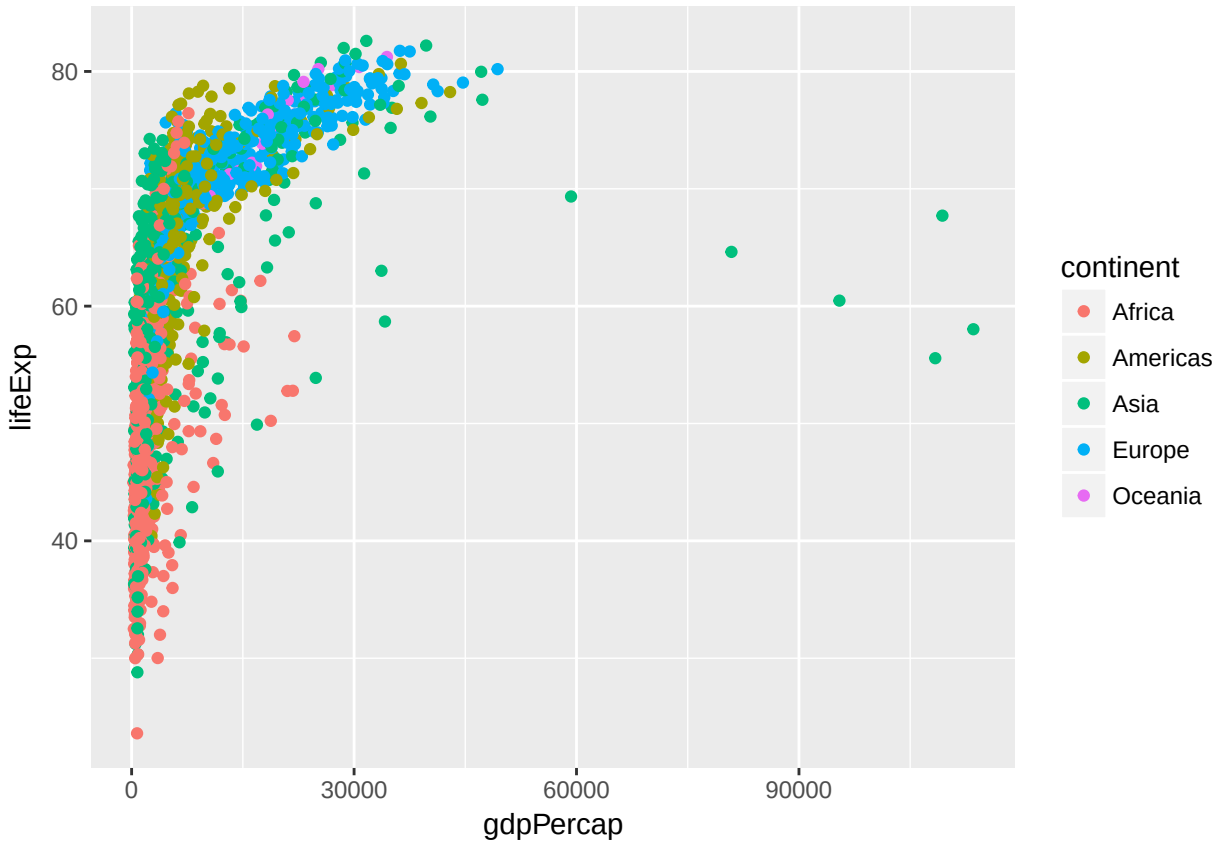
```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

```
# Including "eval = FALSE" means this code will not run
summary(cars)
```

Plots

```
# Throw some plots in:
library(ggplot2)
library(gapminder)

ggplot(gapminder, aes(x = gdpPercap, y = lifeExp)) +
  geom_point(aes(color = continent))
```



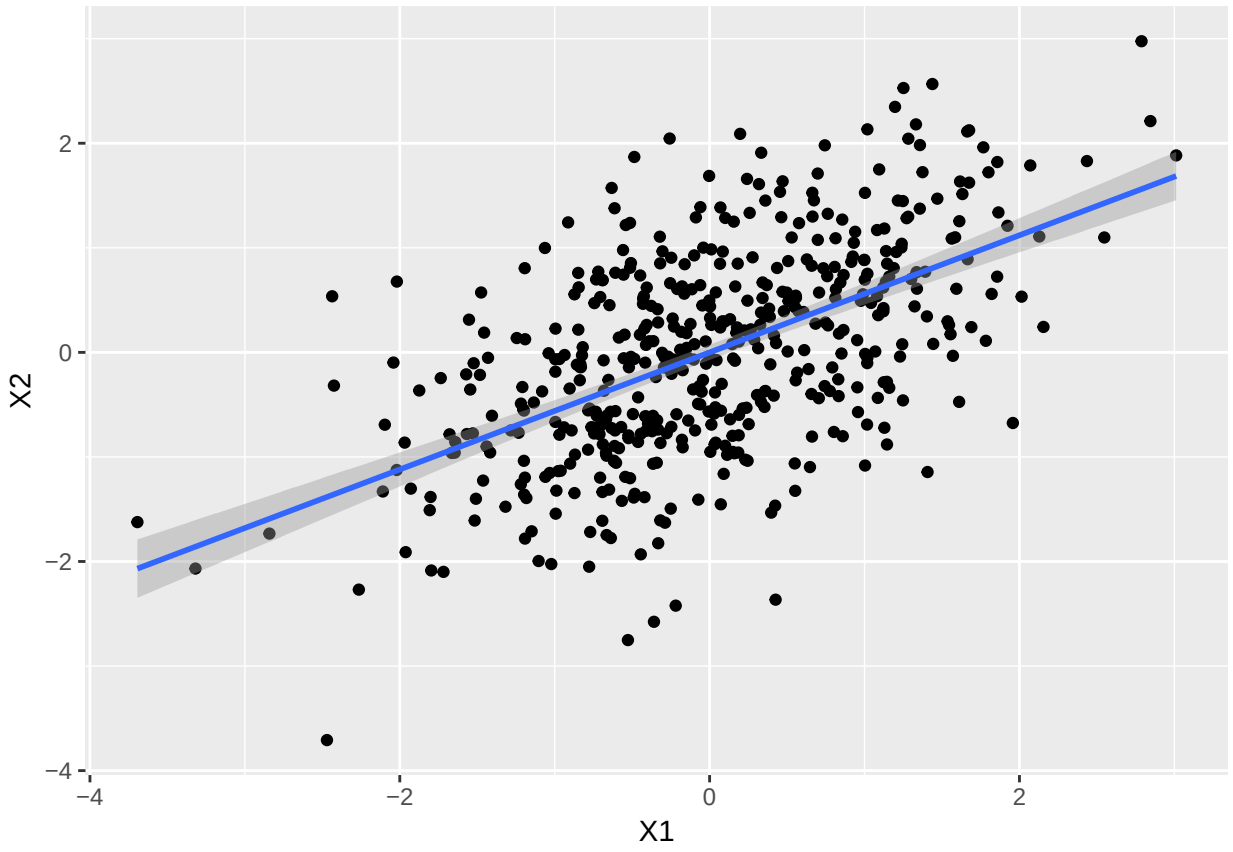

```
# Reproducible reports for when your data changes:
library(MASS)
library(ggplot2)
set.seed(42)

df <- data.frame(mvrnorm(500, mu = c(0,0), Sigma = matrix(c(1,0.56,0.56,1), ncol = 2),
                 empirical = TRUE))

head(df)
```

```
##           X1         X2
## 1 -1.5229629 -0.1039770
## 2 -0.6037383 -1.0562666
## 3 -0.1830964  0.1967777
## 4 -0.4197538  0.2290691
## 5  0.4354155  0.8071503
## 6  0.1885482  0.1035446
```

```
ggplot(df, aes(x = X1, y = X2)) +
  geom_point() +
  geom_smooth(method = "lm")
```



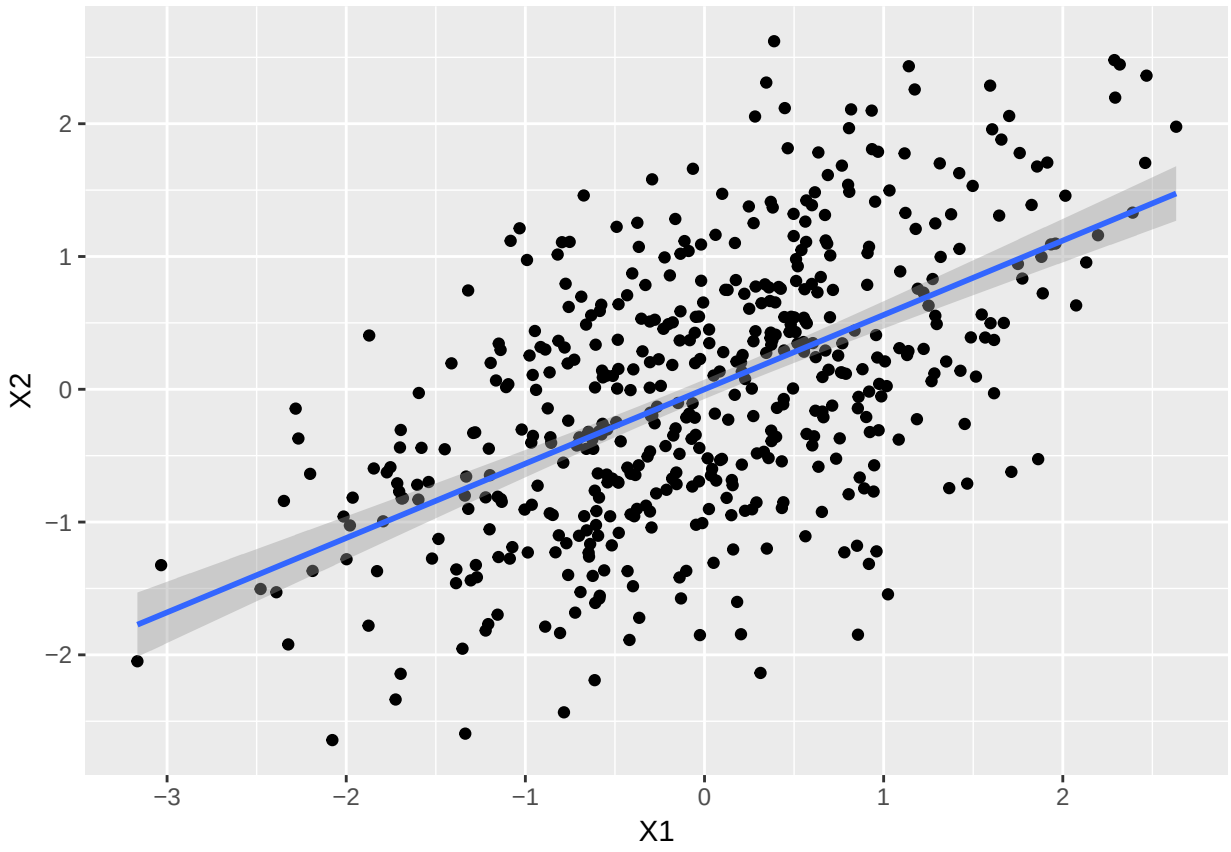

```
set.seed(500)

df <- data.frame(mvrnorm(500, mu = c(0,0), Sigma = matrix(c(1,0.56,0.56,1), ncol = 2),
                empirical = TRUE))

head(df)
```

```
##           X1         X2
## 1 -2.2014050 -0.6368717
## 2 -1.3510351 -1.9537550
## 3  0.7808272 -1.2277939
## 4  0.9720240 -0.3084019
## 5  0.3479552 -1.1997703
## 6  0.4815081  0.4875031
```

```
ggplot(df, aes(x = X1, y = X2)) +
  geom_point() +
  geom_smooth(method = "lm")
```


2
1
0
−1
−2
X2
−3
−2
−1
0
1
2
X1