

# RMarkdown

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## Installation

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

## Syntax

```
# Header 1
## Header 2
### Header 3
#### Header 4
##### Header 5
##### Header 6
```

## Header 1

### Header 2

#### Header 3

#### Header 4

#### Header 5

#### Header 6

> block quote

block quote

endash: --

endash: -

emdash: ---

emdash: —

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

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

image: 



image:

- \* 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)

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
```

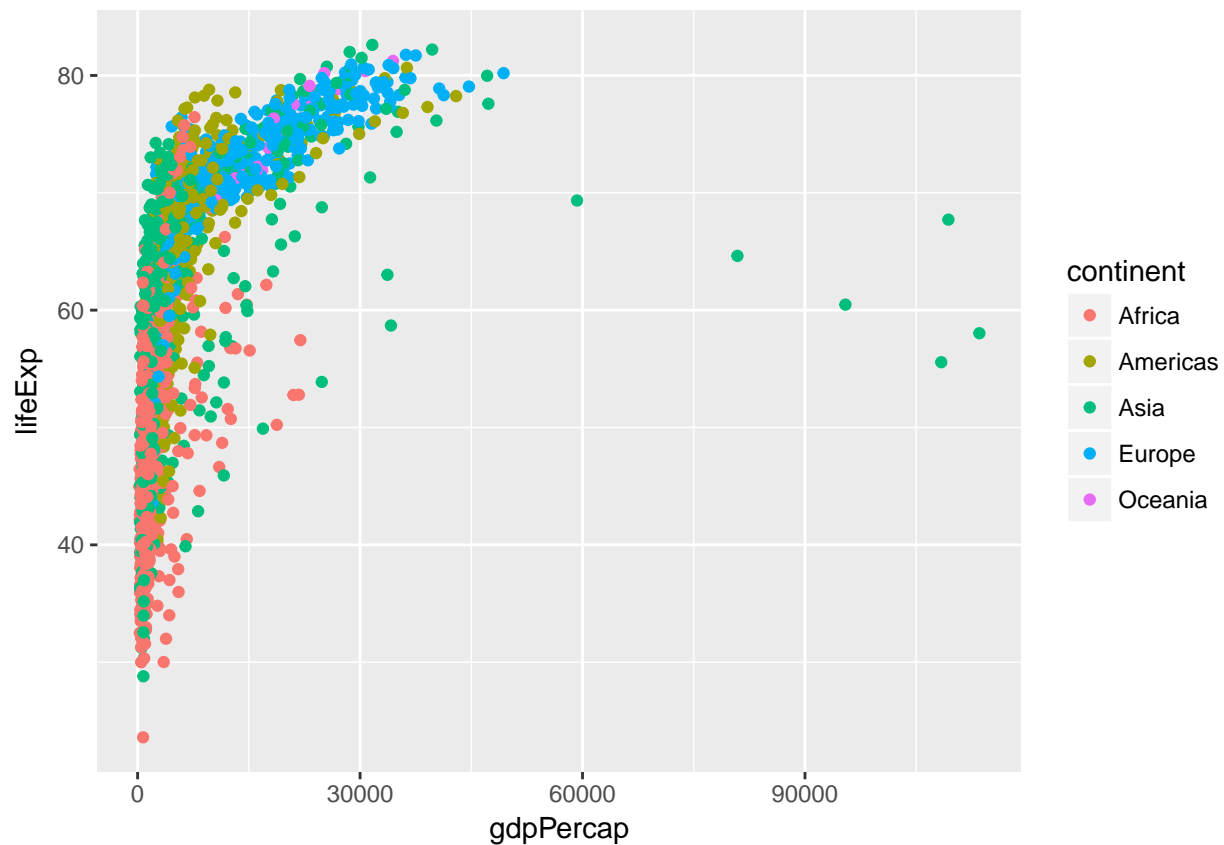
```
summary(cars)
```

```
# Throw some plots in:
```

```
library(ggplot2)
```

```
library(gapminder)
```

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



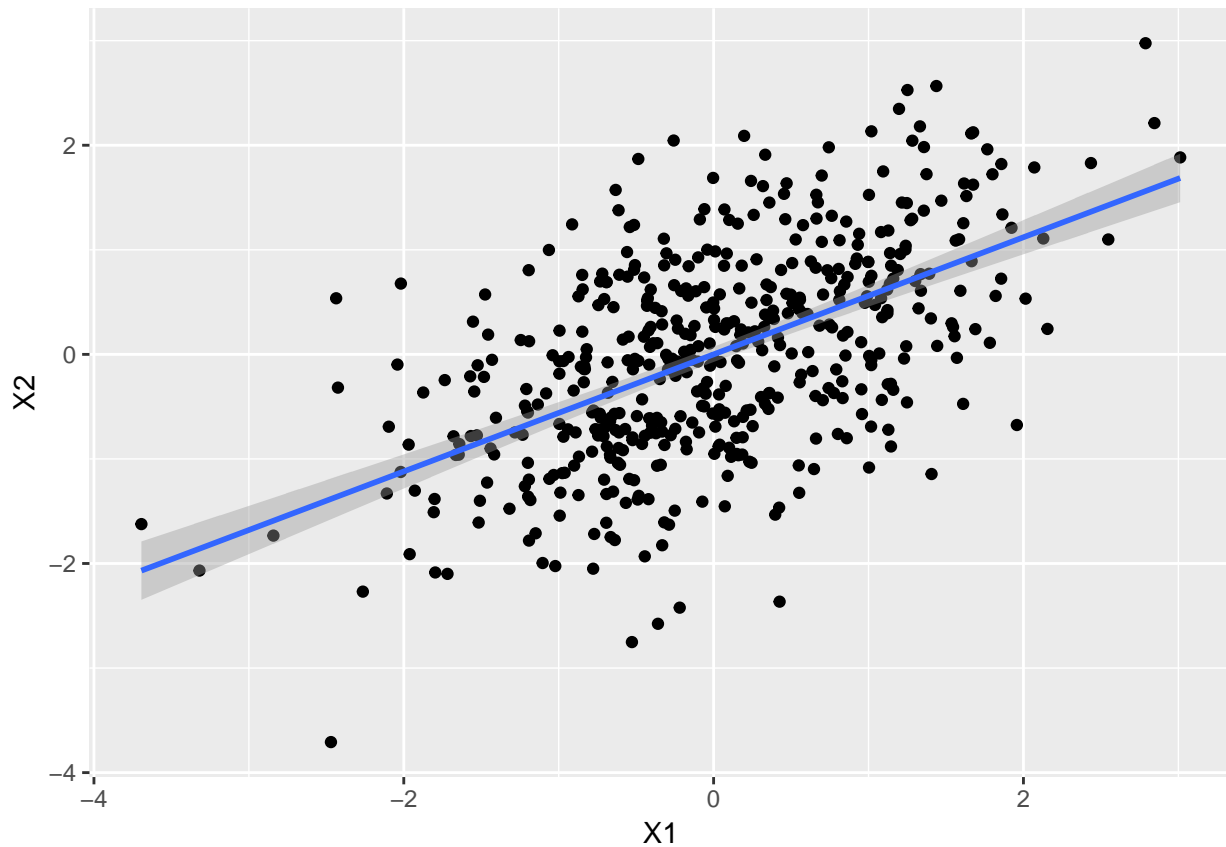
```
# Reproducible reports for when your data changes:
library(MASS)
library(ggplot2)
set.seed(42)

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")
```

