```r
library(tidyverse)
```

```
-- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
v dplyr     1.1.4     v readr     2.1.5
v forcats   1.0.0     v stringr   1.5.1
v ggplot2   3.5.0     v tibble    3.2.1
v lubridate 1.9.3     v tidyr     1.3.1
v purrr     1.0.2
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to beco
```

```r
set.seed(123)
n <- 100
earth <- rnorm(n)
fire <- rnorm(n)
wind <- rnorm(n)
water <- rnorm(n)


heart <- 0.5*earth + 0.2*fire + 0.1*wind + 0.3*water + rnorm(n)

df <- data.frame(earth, fire, wind, water, heart)

model <- lm(heart ~ earth + fire + wind + water, data = df)

summary(model)
```

```
Call:
lm(formula = heart ~ earth + fire + wind + water, data = df)

Residuals:
     Min       1Q   Median       3Q      Max
-2.47336 -0.58010  0.07461  0.68778  2.46552

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.11614    0.10000   1.161   0.2484
earth        0.27575    0.10899   2.530   0.0130 *
```

```
fire         0.05849    0.10204   0.573   0.5679
wind         0.04954    0.10468   0.473   0.6371
water        0.27667    0.09506   2.910   0.0045 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9794 on 95 degrees of freedom
Multiple R-squared:  0.1328,    Adjusted R-squared:  0.09624
F-statistic: 3.636 on 4 and 95 DF,  p-value: 0.008422
```