

# Tidyverse R

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## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
library(tidyverse)

## -- Attaching packages ----- tidyverse 1.3.2 --
## v ggplot2 3.3.6      v purrr   0.3.4
## v tibble  3.1.8      v dplyr   1.0.10
## v tidyr   1.2.1      v stringr 1.4.1
## v readr   2.1.2      v forcats 0.5.2
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()

url <- "https://gist.githubusercontent.com/toyeiei/d9e267754d0b7a7045e182b3d0011636/raw/04cf2d5b211dc3df1"

# read data
wp <- read_csv(url)

## Rows: 7 Columns: 8
## -- Column specification -----
## Delimiter: ","
## dbf (8): Year, N.Amer, Europe, Asia, S.Amer, Oceania, Africa, Mid.Amer
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.

#transform
long_wp <- wp %>%
  pivot_longer(-Year,
               names_to = "region",
               values_to = "sales")

long_wp

## # A tibble: 49 x 3
##   Year region  sales
##   <dbl> <chr>   <dbl>
## 1  1951 N.Amer  45939
## 2  1951 Europe  21574
## 3  1951 Asia    2876
## 4  1951 S.Amer   1815
## 5  1951 Oceania  1646
## 6  1951 Africa     89
```

```
## 7 1951 Mid.Amer 555
## 8 1956 N.Amer 60423
## 9 1956 Europe 29990
## 10 1956 Asia 4708
## # ... with 39 more rows
```

```
wide_vp <- long_wp %>%
  pivot_wider(names_from = "region",
              values_from = "sales")
```

```
wide_vp
```

```
## # A tibble: 7 x 8
##   Year N.Amer Europe Asia S.Amer Oceania Africa Mid.Amer
##   <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 1951 45939 21574 2876 1815 1646 89 555
## 2 1956 60423 29990 4708 2568 2366 1411 733
## 3 1957 64721 32510 5230 2695 2526 1546 773
## 4 1958 68484 35218 6662 2845 2691 1663 836
## 5 1959 71799 37598 6856 3000 2868 1769 911
## 6 1960 76036 40341 8220 3145 3054 1905 1008
## 7 1961 79831 43173 9053 3338 3224 2005 1076
```

```
# Json
```

```
url2 <- "https://gist.githubusercontent.com/toyeiei/df5e729c0bbe111318530f254d90546e/raw/22fd0ea0780215"
```

```
# play with API
```

```
library(jsonlite)
```

```
##
## Attaching package: 'jsonlite'
##
## The following object is masked from 'package:purrr':
##
##   flatten
```

```
list <- fromJSON(url2)
df <- data.frame(list)
df
```

```
##   ID      Name Salary StartDate      Dept
## 1 1      Rick  623.3  1/1/2012         IT
## 2 2        Dan  515.2  9/23/2013 Operations
## 3 3 Michelle   611 11/15/2014         IT
## 4 4        Ryan   729  5/11/2014         HR
## 5 5        Gary 843.25 3/27/2015      Finance
## 6 6        Nina   578  5/21/2013         IT
## 7 7      Simon  632.8  7/30/2013 Operations
## 8 8        Guru  722.5  6/17/2014      Finance
```