

Overview

dplyr is a grammar of data manipulation, providing a consistent set of verbs that help you solve the most common data manipulation challenges:

- <u>mutate()</u> adds new variables that are functions of existing variables
- <u>select()</u> picks variables based on their names.
- <u>filter()</u> picks cases based on their values.
- <u>summarise()</u> reduces multiple values down to a single summary.
- <u>arrange()</u> changes the ordering of the rows.

These all combine naturally with <code>group_by()</code> which allows you to perform any operation "by group". You can learn more about them in <code>vignette("dplyr")</code>. As well as these single-table verbs, dplyr also provides a variety of two-table verbs, which you can learn about in <code>vignette("two-table")</code>.

If you are new to dplyr, the best place to start is the <u>data transformation chapter</u> in R for data science.

Backends

In addition to data frames/tibbles, dplyr makes working with other computational backends accessible and efficient. Below is a list of alternative backends:

<u>arrow</u> for larger-than-memory datasets, including on remote cloud storage like AWS
 S3, using the Apache Arrow C++ engine, <u>Acero</u>.

https://dplyr.tidyverse.org

- <u>dbplyr</u> for data stored in a relational database. Translates your dplyr code to SQL.
- <u>duckdb</u> for large datasets that are still small enough to fit on your computer.
- sparklyr for very large datasets stored in Apache Spark.

Installation

```
# The easiest way to get dplyr is to install the whole tidyverse:
install.packages("tidyverse")

# Alternatively, install just dplyr:
install.packages("dplyr")
```

Development version

To get a bug fix or to use a feature from the development version, you can install the development version of dplyr from GitHub.

```
# install.packages("pak")
pak::pak("tidyverse/dplyr")
```

Cheat Sheet

https://dplyr.tidyverse.org



Usage

library(dplyr)

```
starwars %>%
  filter(species == "Droid")
#> # A tibble: 6 × 14
            height mass hair_color skin_color eye_color birth_year sex
#>
                                                                               gen
             <int> <dbl> <chr>
                                      <chr>>
                                                  <chr>
#>
     <chr>
                                                                  <dbl> <chr> <ch
                                      gold
#> 1 C-3P0
               167
                       75 < NA>
                                                  yellow
                                                                     112 none
                                                                               mas
                                      white, blue red
#> 2 R2-D2
                96
                       32 <NA>
                                                                      33 none
                                                                               mas
#> 3 R5-D4
                97
                                      white, red
                       32 <NA>
                                                  red
                                                                      NA none
                                                                               mas
#> 4 IG-88
               200
                      140 none
                                      metal
                                                   red
                                                                      15 none
                                                                               mas
#> 5 R4-P17
                                      silver, red red, blue
                96
                       NA none
                                                                      NA none
                                                                               fem
#> # i 1 more row
  # i 5 more variables: homeworld <chr>, species <chr>, films <list>,
       vehicles <list>, starships <list>
starwars %>%
  select(name, ends with("color"))
```

```
#> # A tibble: 87 × 4
                     hair_color skin_color
#>
     name
                                              eve color
     <chr>>
                     <chr>>
                                 <chr>>
                                               <chr>
#> 1 Luke Skywalker blond
                                 fair
                                              blue
#> 2 C-3P0
                     <NA>
                                 gold
                                              vellow
#> 3 R2-D2
                     <NA>
                                 white, blue red
#> 4 Darth Vader
                                 white
                                              yellow
                     none
#> 5 Leia Organa
                     brown
                                 light
                                              brown
```

#> # i 82 more rows

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```
<u>setect</u>(name:mass, pmi)
#> # A tibble: 87 × 4
#>
     name
                      height
                              mass
                                      bmi
#>
     <chr>
                       <int> <dbl> <dbl>
#> 1 Luke Skywalker
                         172
                                 77
                                     26.0
#> 2 C-3P0
                         167
                                 75
                                     26.9
#> 3 R2-D2
                                     34.7
                          96
                                 32
#> 4 Darth Vader
                                136
                                     33.3
                         202
#> 5 Leia Organa
                         150
                                 49
                                     21.8
#> # i 82 more rows
starwars %>%
  arrange(desc(mass))
#> # A tibble: 87 × 14
                height
                        mass hair_color skin_color eye_color birth_year sex
#>
     name
     <chr>
                 <int> <dbl> <chr>
                                           <chr>>
                                                       <chr>
                                                                        <dbl> <chr> <
#>
#> 1 Jabba De...
                   175
                        1358 <NA>
                                                                       600
                                           green-tan... orange
                                                                              herm... m
#> 2 Grievous
                   216
                        159 none
                                           brown, wh... green, y...
                                                                        NA
                                                                              male
#> 3 IG-88
                   200
                        140 none
                                           metal
                                                       red
                                                                         15
                                                                              none
#> 4 Darth Va...
                   202
                          136 none
                                           white
                                                       yellow
                                                                         41.9 male
#> 5 Tarfful
                   234
                          136 brown
                                           brown
                                                       blue
                                                                         NA
                                                                              male
                                                                                     m
#> # i 82 more rows
  # i 5 more variables: homeworld <chr>, species <chr>, films <list>,
       vehicles <list>, starships <list>
starwars %>%
  group by(species) %>%
  summarise(
    n = \underline{n}(),
    mass = mean(mass, na.rm = TRUE)
  ) %>%
  filter(
    n > 1,
    mass > 50
  )
#> # A tibble: 8 × 3
#>
     species
                   n
                       mass
     <chr>>
               <int> <dbl>
#>
#> 1 Droid
                   6
                       69.8
```

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```
#> # i 3 more rows
```

Getting help

If you encounter a clear bug, please file an issue with a minimal reproducible example on <u>GitHub</u>. For questions and other discussion, please use <u>community.rstudio.com</u> or the <u>manipulatr mailing list</u>.

Please note that this project is released with a <u>Contributor Code of Conduct</u>. By participating in this project you agree to abide by its terms.

LINKS

View on CRAN

Browse source code

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COMMUNITY

Contributing guide

Code of conduct

Getting help

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DEVELOPERS

Hadley Wickham

Author, maintainer

Romain François

Author (D

Lionel Henry

Author

Kirill Müller

Author (D

Davis Vaughan

Author (D

⋈ posit[∗]

Copyright holder, funder

Developed by <u>Hadley Wickham</u>, <u>Romain François</u>, <u>Lionel Henry</u>, <u>Kirill Müller</u>, <u>Davis Vaughan</u>, **posit**^{*}.

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