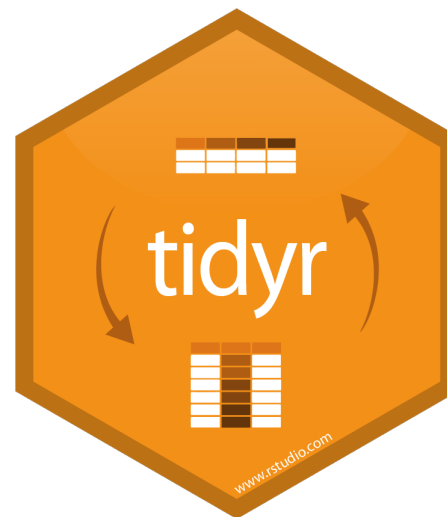
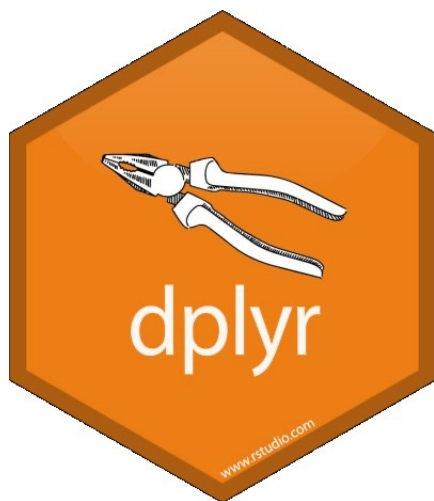


Data Verbs

Data verbs are functions that take one or more tabular datasets and return a new dataset. They are designed to always accept the dataset(s) as the first arguments to make them easy to use in pipes. Verbs correspond to a theoretical model called **relational algebra**, which describes for how transformations occur within a database.

Most verbs come from one of two R packages:



Data Verbs

While there are dozens of verbs provided by these packages, most are just slight variations of each other. We will focus on learning **ten core verbs**, from which everything else is easily derived:

[one-table verbs]

- `filter()`
- `slice()`
- `select()`
- `arrange()`
- `mutate()`
- `summarize()`

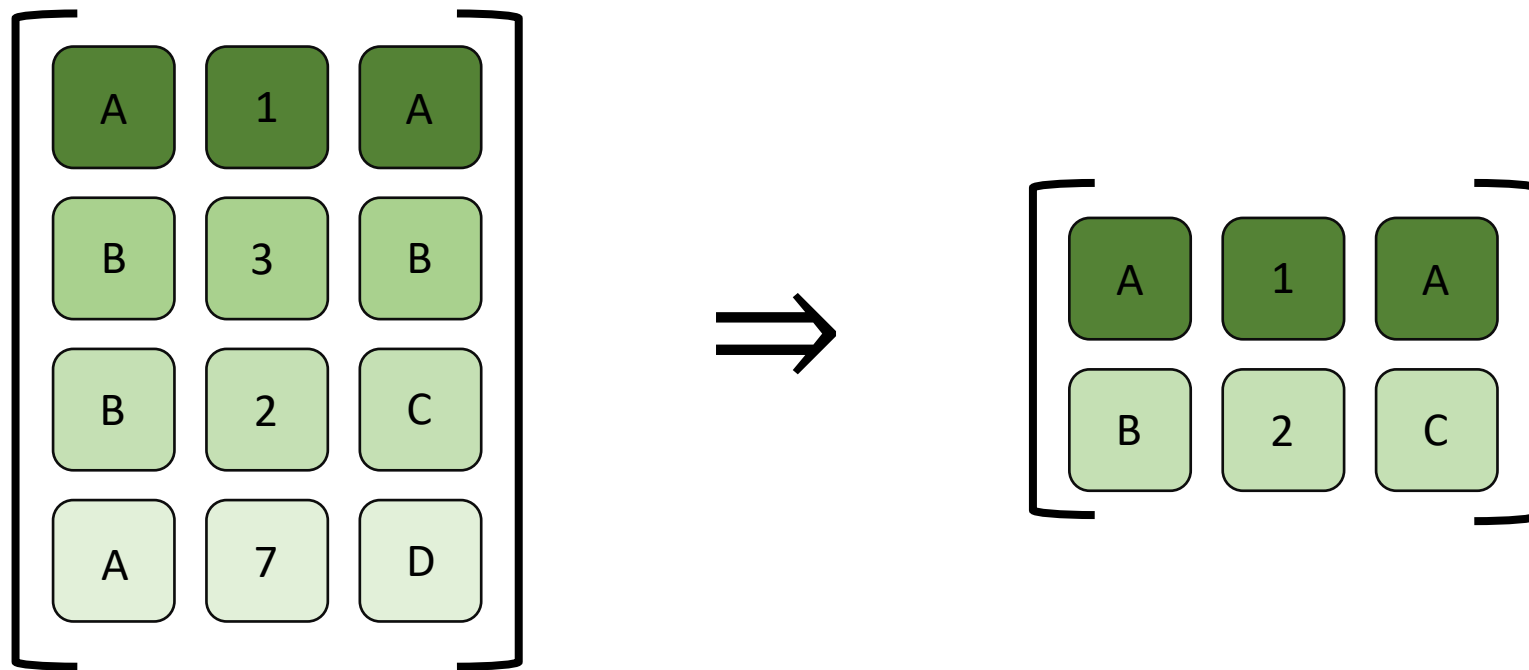
[two-table verbs]

- `left_join()`
- `semi_join()`

[pivots]

- `pivot_wider()`
- `pivot_longer()`

FILTER / SLICE

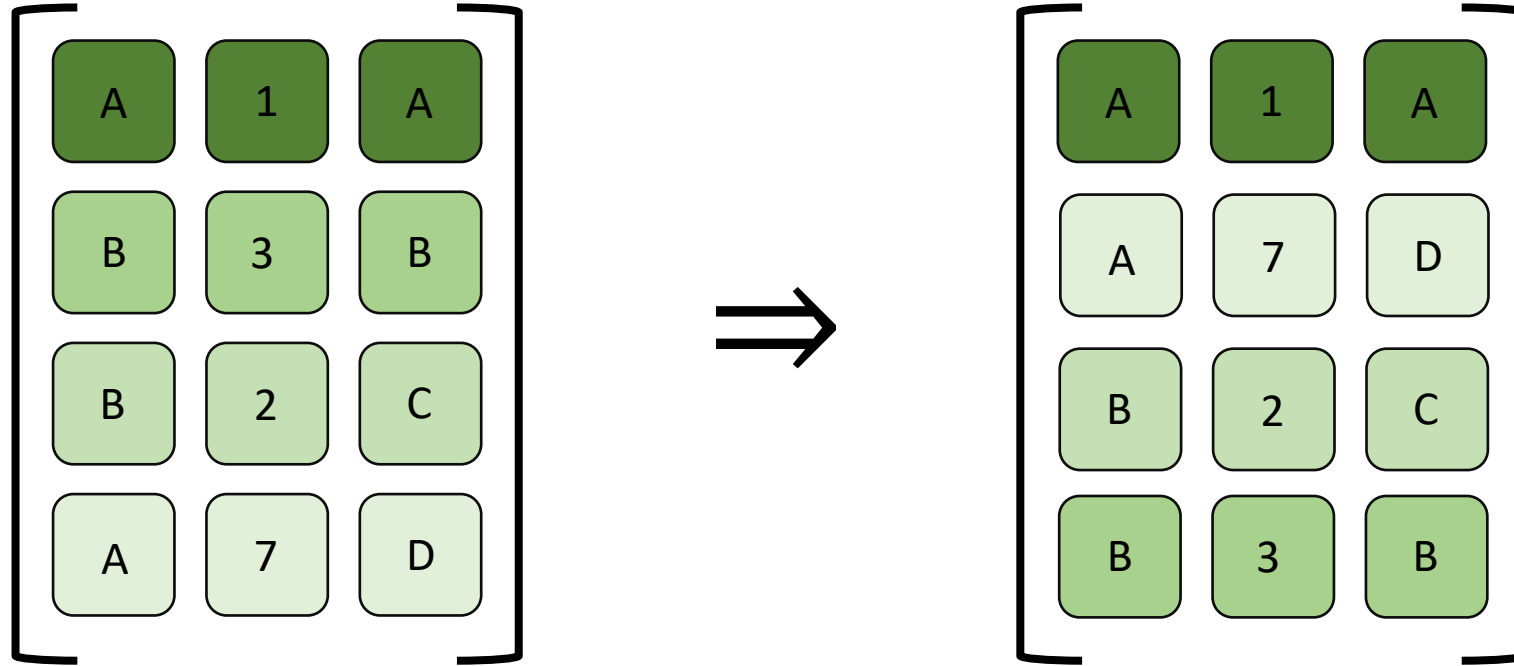


%in%

between()

<, >, <=, >=, !=, ==

ARRANGE



desc()

SELECT

