

Day 6 Cheatsheet

Data Manipulation

Major concepts:

- Wide data - multiple columns per individual, values spread across multiple columns
- Long data - multiple rows per observation, a single column contains the values

Functions

| Library/Package | Piece of code | Example of usage | What it does |
|-----------------|-----------------------------|--|---|
| dplyr | <code>separate()</code> | <code>df %>% separate(x, c("A", "B"))</code> | Separate a character column into multiple columns with a regular expression or numeric locations |
| dplyr | <code>unite()</code> | <code>df %>% unite("z", x:y, remove = FALSE)</code> | Unite multiple columns together into one column |
| tidyr | <code>pivot_longer()</code> | <code>df %>% pivot_longer(!column_to_not_touch, names_to = "new_col_with_labels", values_to = "new_col_with_values")</code> | Lengthens a data frame by increasing the number of rows and decreasing the number of columns. |
| tidyr | <code>pivot_wider()</code> | <code>df %>% pivot_wider(names_from = "col_with_names", values_from = "col_with_values")</code> | Widens a data frame by decreasing the number of rows and increasing the number of columns. |
| dplyr | <code>?_join()</code> | <code>inner_join(x, y)</code> | Joins data from two data frames. inner_join - only rows that match for x and y are kept. full_join - all rows of x and y are kept. left_join - all rows of x are kept even if not merged with y. right_join - all rows of y are kept even if not merged with x. anti_join - all rows from x not in y keeping just columns from x. |
| Base R | <code>duplicated()</code> | <code>duplicated(x)</code> | Determines and removes duplicate elements from x . |

| Library/Package | Piece of code | Example of usage | What it does |
|-----------------|------------------|------------------|---|
| Base R | <code>t()</code> | Transpose | Returns the transpose of a matrix or data frame. If given a data frame, returns a matrix. |

Data Visualization with **esquisse**

Major concepts

- The **esquisse** package can help you to test out plots and get familiar with the syntax required to make plots

Functions

| Library/Package | Piece of code | Example of usage | What it does |
|-----------------|--------------------------|--------------------------------|---|
| esquisse | <code>esquisser()</code> | <code>esquisser(Orange)</code> | Start an esquisse interactive session to create a plot of the given <code>data.frame</code> or <code>tibble</code> |

* This format was adapted from the cheatsheet format from AlexsLemonade.