tidyverse

Overview

The tidyverse is a set of packages that work in harmony because they share common data representations and API design. The **tidyverse** package is designed to make it easy to install and load core packages from the tidyverse in a single command.

If you'd like to learn how to use the tidyverse effectively, the best place to start is R for data science.

Installation

```
# Install from CRAN
install.packages("tidyverse")

# Or the development version from GitHub
# install.packages("devtools")
devtools::install_github("hadley/tidyverse")
```

Usage

`library(tidyverse)` will load the core tidyverse packages:

- ggplot2, for data visualisation.
- dplyr, for data manipulation.
- tidyr, for data tidying.
- readr, for data import.
- purrr, for functional programming.
- tibble, for tibbles, a modern re-imagining of data frames.
- stringr, for strings.
- forcats, for factors.

You also get a condensed summary of conflicts with other packages you have loaded:

```
library(tidyverse)
#> ── Attaching packages ─────────────────────────────────────────────
tidyverse 1.2.0.9000 ──
#> ✓ ggplot2 2.2.1.9000     ✓ purrr   0.2.4
#> ✓ tibble  1.4.2          ✓ dplyr   0.7.4
#> ✓ tidyr   0.8.0          ✓ stringr 1.3.0
#> ✓ readr   1.1.1          ✓ forcats 0.3.0
#> Warning: package 'stringr' was built under R version 3.4.3
#> ── Conflicts ──────────────────────────────────────────────────────
tidyverse_conflicts() ──
#> ✗ dplyr::filter() masks stats::filter()
#> ✗ dplyr::lag()    masks stats::lag()
#> ✗ dplyr::vars()   masks ggplot2::vars()
```

You can see conflicts created later with `tidyverse_conflicts()`:

```
library(MASS)
```

```
#>
#> Attaching package: 'MASS'
#> The following object is masked from 'package:dplyr':
#>
#>     select
tidyverse_conflicts()
#> — Conflicts —————————————————————————————————————————————————————————————
tidyverse_conflicts() ——
#> ✖ dplyr::filter() masks stats::filter()
#> ✖ dplyr::lag()    masks stats::lag()
#> ✖ MASS::select()  masks dplyr::select()
#> ✖ dplyr::vars()   masks ggplot2::vars()
```

And you can check that all tidyverse packages are up-to-date with `tidyverse_update()`:

```
tidyverse_update()
#> The following packages are out of date:
#>  * broom (0.4.0 -> 0.4.1)
#>  * DBI   (0.4.1 -> 0.5)
#>  * Rcpp  (0.12.6 -> 0.12.7)
#> Update now?
#>
#> 1: Yes
#> 2: No
```

Packages

As well as the core tidyverse, installing this package also installs a selection of other packages that you're likely to use frequently, but probably not in every analysis. This includes packages for:

- Working with specific types of vectors:

    - hms, for times.
    - lubridate, for date/times.
- Importing other types of data:

    - feather, for sharing with Python and other languages.
    - haven, for SPSS, SAS and Stata files.
    - httr, for web apis.
    - jsonlite for JSON.
    - readxl, for `.xls` and `.xlsx` files.
    - rvest, for web scraping.
    - xml2, for XML.
- Modelling

    - modelr, for modelling within a pipeline
    - broom, for turning models into tidy data