



# **R Courses Training: Day 03**

## **Data Cleaning, Writing Functions, Iteration**

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# Outline for today

1. String manipulation with stringr
2. Dates and times with lubridate
3. Writing functions
4. Applying functions with purrr
5. Hands-on tutorial
  - a. Interactively go through RMarkdown on RStudio Cloud





# String manipulation with stringr

The stringr package provides a set of internally consistent tools for working with character strings. (i.e. “this is a character string”)

This package has many features:

- detect matches
- subset strings
- manage lengths
- mutate strings
- order strings

Utilizing regular expressions is mightily powerful with stringr





# Date-times with lubridate

Working with dates is a frequent task during data analysis.

Lubridate allows users to work quite time zones, leap days, day light saving times, and other time related nuances

Key functions:

- robust syntax that makes working with dates consistent
- allows for date-time math
- allows for durations, intervals, periods

purrr



[www.rstudio.com](http://www.rstudio.com)



# Apply functions with purrr

purrr allows for iterations using list

Often there are tasks that are repetitive in nature and would benefit from generalization and automation.

Key features:

- simple syntax to loop through lists
- functional programming toolkit

Will also learn to write functions in R!



Now time for  
hands on tutorial!