* Strings and Regular expressions (http://stat545.com/block028\_character-data.html)
  + - Paste
    - toupper, tolower
    - str\_trim
    - nchar
  + stringr
    - str\_sub
    - str\_split – splitting
    - str\_replace – replace matches
    - str\_detect – detect matches
    - str\_subset
    - str\_extract – extract matches
    - ignore\_case = TRUE
    - multiline = TRUE
  + grep
  + Regular expression
    - Syntax
    - Wildcards
    - Anchors (^/$)
    - character class and alternative ([0-9][a-z][A-Z] \d \s
      * “gr(e|a)y”
    - Negative classes
    - Escape character
    - Repetition (? + \*)
* Column parsing
  + Working with string in columns
  + Merge and split
  + recoding and transformations
* Data structure
  + Lists
* Conditionals and Control Flow
  + If/else if/else
  + ifelse
* Loops
  + For
  + While
* Functions (http://stat545.com/cm102\_writing-functions.html)
  + When to write a function
  + How to write a function
    - Body
    - Formals
    - environment
  + Error handling
    - stopifnot
    - if then stop
    - asserttaht
  + Return values
  + Environment (lexical scoping)
  + …
  + testthat
* Apply
  + Apply
  + lapply
  + mapply
  + tapply
  + by