01\_explore-libraries\_jenny.R

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## how jenny might do this in a first exploration  
## purposely leaving a few things to change later!

Which libraries does R search for packages?

.libPaths()

## [1] "C:/Program Files/R/R-3.4.3/library"

## let's confirm the second element is, in fact, the default library  
.Library

## [1] "C:/PROGRA~1/R/R-34~1.3/library"

library(fs)  
path\_real(.Library)

## C:/Program Files/R/R-3.4.3/library

Installed packages

library(tidyverse)

## -- Attaching packages ------------------------- tidyverse 1.2.1 --

## v ggplot2 2.2.1 v purrr 0.2.4  
## v tibble 1.4.2 v dplyr 0.7.4  
## v tidyr 0.7.2 v stringr 1.2.0  
## v readr 1.1.1 v forcats 0.2.0

## -- Conflicts ---------------------------- tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

ipt <- installed.packages() %>%  
 as\_tibble()  
  
## how many packages?  
nrow(ipt)

## [1] 152

Exploring the packages

## count some things! inspiration  
## \* tabulate by LibPath, Priority, or both  
ipt %>%  
 count(LibPath, Priority)

## # A tibble: 3 x 3  
## LibPath Priority n  
## <chr> <chr> <int>  
## 1 C:/Program Files/R/R-3.4.3/library base 14  
## 2 C:/Program Files/R/R-3.4.3/library recommended 15  
## 3 C:/Program Files/R/R-3.4.3/library <NA> 123

## \* what proportion need compilation?  
ipt %>%  
 count(NeedsCompilation) %>%  
 mutate(prop = n / sum(n))

## # A tibble: 3 x 3  
## NeedsCompilation n prop  
## <chr> <int> <dbl>  
## 1 no 68 0.447   
## 2 yes 78 0.513   
## 3 <NA> 6 0.0395

## \* how break down re: version of R they were built on  
ipt %>%  
 count(Built) %>%  
 mutate(prop = n / sum(n))

## # A tibble: 3 x 3  
## Built n prop  
## <chr> <int> <dbl>  
## 1 3.4.1 13 0.0855  
## 2 3.4.2 2 0.0132  
## 3 3.4.3 137 0.901

Reflections

## reflect on ^^ and make a few notes to yourself; inspiration  
## \* does the number of base + recommended packages make sense to you?  
## \* how does the result of .libPaths() relate to the result of .Library?

Going further

## if you have time to do more ...  
  
## is every package in .Library either base or recommended?  
all\_default\_pkgs <- list.files(.Library)  
all\_br\_pkgs <- ipt %>%  
 filter(Priority %in% c("base", "recommended")) %>%  
 pull(Package)  
setdiff(all\_default\_pkgs, all\_br\_pkgs)

## [1] "ada" "assertthat" "backports" "base64enc"   
## [5] "BH" "bindr" "bindrcpp" "bitops"   
## [9] "broom" "cairoDevice" "caret" "caTools"   
## [13] "cellranger" "cli" "clipr" "clisymbols"   
## [17] "colorspace" "crayon" "curl" "CVST"   
## [21] "data.table" "DBI" "dbplyr" "ddalpha"   
## [25] "debugme" "DEoptimR" "desc" "dichromat"   
## [29] "digest" "dimRed" "dplyr" "DRR"   
## [33] "enc" "evaluate" "forcats" "foreach"   
## [37] "fs" "gdata" "ggplot2" "gh"   
## [41] "git2r" "glue" "gower" "gplots"   
## [45] "gtable" "gtools" "haven" "highr"   
## [49] "hms" "htmltools" "httr" "ini"   
## [53] "ipred" "iterators" "jsonlite" "kernlab"   
## [57] "knitr" "labeling" "lava" "lazyeval"   
## [61] "lubridate" "magrittr" "markdown" "mime"   
## [65] "mnormt" "ModelMetrics" "modelr" "munsell"   
## [69] "numDeriv" "openssl" "pillar" "pkgconfig"   
## [73] "plogr" "plyr" "praise" "prodlim"   
## [77] "psych" "purrr" "R6" "randomForest"  
## [81] "rattle" "RColorBrewer" "Rcpp" "RcppRoll"   
## [85] "readr" "readxl" "recipes" "rematch"   
## [89] "rematch2" "reprex" "reshape2" "RGtk2"   
## [93] "rlang" "rmarkdown" "robustbase" "ROCR"   
## [97] "rpart.plot" "rprojroot" "rstudioapi" "rvest"   
## [101] "scales" "selectr" "sfsmisc" "SQUAREM"   
## [105] "stringi" "stringr" "styler" "testthat"   
## [109] "tibble" "tidyr" "tidyselect" "tidyverse"   
## [113] "timeDate" "translations" "usethis" "utf8"   
## [117] "viridisLite" "whisker" "withr" "xgboost"   
## [121] "XML" "xml2" "yaml"

## study package naming style (all lower case, contains '.', etc  
  
## use `fields` argument to installed.packages() to get more info and use it!  
ipt2 <- installed.packages(fields = "URL") %>%  
 as\_tibble()  
ipt2 %>%  
 mutate(github = grepl("github", URL)) %>%  
 count(github) %>%  
 mutate(prop = n / sum(n))

## # A tibble: 2 x 3  
## github n prop  
## <lgl> <int> <dbl>  
## 1 F 79 0.520  
## 2 T 73 0.480