9/19/2018 Function interface | Coursera

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The following function has two arguments:

- pkgname, the name of the package as a character string
- date, a character string indicating the date for which you want download statistics, in year-month-day format

Given the date and package name, the function downloads the appropriate download logs from the RStudio server, reads the CSV file, and then returns the number of downloads for the package.

```
library(dplyr)
    library(readr)
    ## pkgname: package name (character)
    ## date: YYYY-MM-DD format (character)
    num_download <- function(pkgname, date) {</pre>
            ## Construct web URL
 8
            year <- substr(date, 1, 4)
9
            src <- sprintf("http://cran-logs.rstudio.com/%s/%s.csv.gz",</pre>
10
                            year, date)
11
12
            ## Construct path for storing local file
13
            dest <- file.path("data", basename(src))</pre>
14
15
            ## Don't download if the file is already there!
16
            if(!file.exists(dest))
17
                    download.file(src, dest, quiet = TRUE)
18
19
            cran <- read_csv(dest, col_types = "cciccccci", progress = FALSE)</pre>
20
            cran %>% filter(package == pkgname) %>% nrow
21 }
```

Now we can call our function using whatever date or package name we choose.

```
1 num_download("filehash", "2016-07-20")
2 [1] 179
```

We can look up the downloads for a different package on a different day.

```
1 num_download("Rcpp", "2016-07-19")
2 [1] 13572
```

Note that for this date, the CRAN log file had to be downloaded separately because it had not yet been downloaded.

Mark as completed

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