

yourfunds

I organized the codes into scripts, and I'm ready to build the Shiny App. I started to build the Home page and I realized that I didn't know how to get hourly data Robinhood. I found a way, but seems like the function for that is broken, because the hours are messed up and incomplete. I will need to get some support from the creator of the package.

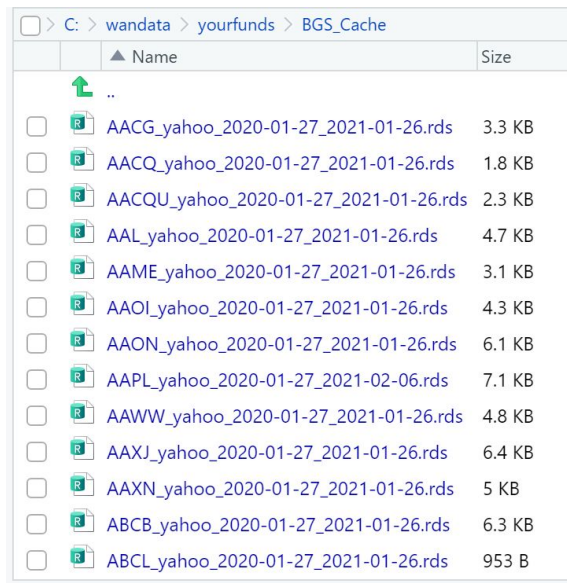
I planned on having the Home page built this week, but I didn't spend enough time on the project. I'm planning on compensating the next week and catch up with the schedule and deliverables.

My next step will be to actually start building the app.

Below are parts of the code that I created or fixed this week.

Code

Folder with 52 weeks of daily data for ALL stocks in RobinHood:



C: > wandata > yourfunds > BGS_Cache		
	Name	Size
	..	
<input type="checkbox"/>	AACG_yahoo_2020-01-27_2021-01-26.rds	3.3 KB
<input type="checkbox"/>	AACQ_yahoo_2020-01-27_2021-01-26.rds	1.8 KB
<input type="checkbox"/>	AACQU_yahoo_2020-01-27_2021-01-26.rds	2.3 KB
<input type="checkbox"/>	AAL_yahoo_2020-01-27_2021-01-26.rds	4.7 KB
<input type="checkbox"/>	AAME_yahoo_2020-01-27_2021-01-26.rds	3.1 KB
<input type="checkbox"/>	AAOI_yahoo_2020-01-27_2021-01-26.rds	4.3 KB
<input type="checkbox"/>	AAON_yahoo_2020-01-27_2021-01-26.rds	6.1 KB
<input type="checkbox"/>	AAPL_yahoo_2020-01-27_2021-02-06.rds	7.1 KB
<input type="checkbox"/>	AAWW_yahoo_2020-01-27_2021-01-26.rds	4.8 KB
<input type="checkbox"/>	AAXJ_yahoo_2020-01-27_2021-01-26.rds	6.4 KB
<input type="checkbox"/>	AAXN_yahoo_2020-01-27_2021-01-26.rds	5 KB
<input type="checkbox"/>	ABCB_yahoo_2020-01-27_2021-01-26.rds	6.3 KB
<input type="checkbox"/>	ABCL_yahoo_2020-01-27_2021-01-26.rds	953 B

Function to run every time the user wants to see if any stock in one of his watchlists hit 52 weeks high.

I get 52 weeks of data for all stocks in my watchlists, then I loop through each one of them comparing if the highest price of the day is the highest price within the 52 weeks.

The function takes only a few seconds to run and return a vector with all the stocks that the current/last price is the highest in 52 weeks.

```
47 # --
48 # WATCH 52 WEEKS HIGH
49 # --
50
51 F.WATCH.52.HIGH <- function(tickers, f.date, l.date, freq, cache, folder) {
52
53   dat <- BatchGetSymbols(tickers = tickers,
54                         first.date = f.date,
55                         last.date = l.date,
56                         freq.data = freq,
57                         do.cache = cache,
58                         cache.folder = folder)
59
60   files <- list.files(path=folder, pattern="*.rds", full.names=TRUE, recursive=FALSE)
61
62   # watch.52 with only current values
63   dat <- dat$df.tickers %>%
64     filter(ref.date == today) %>%
65     select(ticker,
66           price.high.curr = price.high,
67           price.close.curr = price.close)
68
69   dat.highs <- data.frame(matrix(ncol = 2, nrow = 0))
70   colnames(dat.highs) <- c('ticker', 'price.high')
71
72   for (i in 1:length(files)){
73     dat.files <- readRDS(files[i]) %>%
74       select(ticker,
75             #ref.date,
76             price.high) %>%
77       group_by(ticker) %>%
78       filter(price.high == max(price.high))
79
80     dat.highs <- bind_rows(dat.files, dat.highs)
81   }
82
83   watch.52.highs <- dat.highs %>%
84     left_join(dat, by = 'ticker') %>%
85     select(ticker, price.high, price.high.curr) %>%
86     filter(price.high <= price.high.curr)
87
88   unlink("./BGS_Cache_Watch", recursive = T)
89
90   rm(dat,
91     dat.highs,
92     dat.files,
93     files)
94
95   return(watch.52.highs)
96
97 }
```

Function to run every night and get all stocks that exist in Robinhood that hit 52 weeks high that day.

Every time this function runs, it will go over the files for all the stocks and append new days of data. It will return a vector with all stocks that reached 52 weeks high during that day.

```
103 # --
104 # ALL TICKERS 52 WEEKS HIGH
105 # --
106
107 F.ALL.52.HIGH <- function(tickers, f.date, l.date, freq, cache, folder) {
108
109   dat <- BatchGetSymbols(tickers = tickers,
110                         first.date = f.date,
111                         last.date = l.date,
112                         freq.data = freq,
113                         do.cache = cache,
114                         cache.folder = folder)
115
116   files <- list.files(path=folder, pattern="*.rds", full.names=TRUE, recursive=FALSE)
117
118   highs <- c()
119
120   for (i in 1:length(files)) {
121     dat <- readRDS(files[i])
122     max.high <- max(dat$price.high)
123     curr <- dat$price.high[dat$ref.date == today]
124
125     if (length(curr) == 1) {
126       if (curr >= max.high) {
127         highs <- c(highs, unique(dat$sticker))
128       }
129     }
130   }
131
132   rm(dat,
133       files,
134       max.high,
135       curr)
136
137   return(highs)
138 }
139 }
```

Summaries (current equity, all money invested out of pocket, return, percent growth)

```
40 # -- SUMMARIES
41
42 # Equity
43 equity <- get_portfolios(RH)$equity
44
45 # Transfers
46 deposits <- get_ach(RH, action = "transfers") %>%
47   select(direction, amount, state, fees) %>%
48   filter(state == 'completed',
49          direction == 'deposit') %>%
50   mutate(amount = amount - fees) %>%
51   select(amount) %>%
52   summarise_all(.funs = sum) %>%
53   as.numeric()
54
55 # Revenue
56 revenue <- equity - deposits
57
58 # Percent growth
59 percent_growth <- round((revenue / deposits) * 100, 1)
60
```