

Elementary Web Mining Using rvest and bankrates.com

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```
suppressMessages(lapply(c('tidyverse', 'magrittr', 'knitr', 'kableExtra', 'rvest'),  
  function(x) library(x, character.only = TRUE)))
```

```
links <- data.frame(category = c('1-Year CD Rates', '3-Year CD Rates', '5-Year CD Rates'),  
  url = c('https://www.bankrate.com/banking/cds/best-1-year-cd-rates/',  
    'https://www.bankrate.com/banking/cds/best-3-year-cd-rates/',  
    'https://www.bankrate.com/banking/cds/best-5-year-cd-rates/'),  
  stringsAsFactors = FALSE)
```

```
read_html_table <- function(url) {  
  
  read_html(url) %>%  
    html_nodes('table') %>%  
    html_table() %>%  
    .[[1]]  
  
} # Output: list  
  
mykable <- function(df, ...) {  
  
  kable(df, ..., booktabs = TRUE) %>%  
    kable_styling(full_width = TRUE)  
  
}
```

```
### Test with only the first link  
  
col_names <- c('Bank', 'Monthly Fee', 'APY',  
  'Minimum Opening Balance', 'Minimum Balance to Avoid Fees')  
  
with(links, map2(url, category, ~ {  
  
  read_html_table(.x) %>%  
    mykable(caption = .y) %>%  
    collapse_rows(1, valign = 'top')  
  
}))
```

```
[[1]]
```

```
[[2]]
```

```
[[3]]
```

Table 1: 1-Year CD Rates

Financial Institution	APY	Minimum Deposit
First National Bank of America	2.35%	\$1,000
Sallie Mae Bank	2.10%	\$2,500
CommunityWide Federal Credit Union	2.30%	\$1,000
Live Oak Bank	2.30%	\$2,500
BrioDirect	2.25%	\$500
Comenity Direct	2.25%	\$1,500
Capital One Bank	2.10%	\$0
Barclays Bank	2.15%	\$0
Synchrony Bank	2.00%	\$2,000
Citizens Access	2.10%	\$5,000

Table 2: 3-Year CD Rates

Financial institution	APY	Minimum deposit
Pennsylvania State Employees Credit Union	3.25%	\$500
Dow Chemical Employeesâ Credit Union	2.70%	\$1,000
Hughes Federal Credit Union	2.58%	\$1,000
Garden Savings Federal Credit Union	2.53%	\$500
American 1 Credit Union	2.50%	\$500
Synchrony Bank	2.10%	\$2,00
Barclays Bank	2.15%	\$0
Citizens Access	2.15%	\$5,000
Capital One	1.65%	\$0
CIT Bank	1.30%	\$1,000

Table 3: 5-Year CD Rates

Bank	APY	Minimum Deposit
Pennsylvania State Employees Credit Union	3.00%	\$500
Hiway Federal Credit Union	3.00%	\$25,000
State Department Federal Credit Union	2.98%	\$500
Pen Air Federal Credit Union	2.95%	\$500
DollarSavingsDirect	2.80%	\$1,000
Synchrony Bank	2.25%	\$2,000
Ally Bank	2.25%	\$0
Barclays Bank	2.25%	\$0
Marcus by Goldman Sachs	2.25%	\$500
PurePoint Financial	2.25%	\$10,000