We are excited to announce the [nse2r](https://nse2r.rsquaredacademy.com/) package. [NSE](https://www.nseindia.com/) (National Stock Exchange) is the leading stock exchange of India, located in the city of Mumbai. While users can manually download data from NSE through a browser, importing this data into R becomes cumbersome. The nse2r R package implements the retrieval of data from NSE and aims to reduce the pre-processing steps needed in analyzing such data.

nse2r is inspired by and a port of the Python package [nsetools](https://nsetools.readthedocs.io/en/latest/). The authors and contributors for this R package are not affiliated with NSE and NSE does not offer support for this R package.

With nse2r, you can fetch the following data related to:

* stocks
  + quote for a given stock
  + stock description
  + validate stock symbol/ticker
  + most actively traded stocks in a month
  + 52 week high/low
  + top gainers/losers for the last trading session
* index
  + list of NSE indices
  + validate index symbol/ticker
  + quote for a given index
* futures & options
  + top gainers/losers for the last trading session
* pre open market data
  + nifty
  + nifty bank
* indices advances & declines

**Installation**

# Install release version from CRAN

install.packages("nse2r")

**Usage**

nse2r uses consistent prefix nse\_ for easy tab completion.

* nse\_index\_ for index
* nse\_stock\_ for stocks
* nse\_fo\_ for futures and options
* nse\_preopen\_ for preopen data

**Preprocessing**

nse2r does basic data preprocessing which are listed below:

* modify column data types from character to numeric and Date
* modify column names
  + make them more descriptive
  + to snake\_case from camelCase

Users can retain the names and format as returned by NSE using the clean\_names argument and setting it to FALSE.

**Quick Overview**

**Fetch Indices Quote**

nse\_index\_quote()

## # A tibble: 55 x 4

## index\_name last\_traded\_price change percent\_change

##

## 1 NIFTY 50 Pre Open 12328. -27.1 -0.22

## 2 NIFTY 50 12371. 15.4 0.12

## 3 NIFTY NEXT 50 29009. 30.2 0.1

## 4 NIFTY100 LIQ 15 3794. -11.2 -0.290

## 5 NIFTY BANK 31661. -193. -0.6

## 6 INDIA VIX 14.4 0.24 1.67

## 7 NIFTY 100 12486. 15.2 0.12

## 8 NIFTY 500 10125. 15.4 0.15

## 9 NIFTY MIDCAP 100 18037. 52.1 0.290

## 10 NIFTY MIDCAP 50 4978. 9.5 0.19

## # ... with 45 more rows

# retain original column names as returned by NSE

nse\_index\_quote(clean\_names = FALSE)

## # A tibble: 55 x 4

## name lastPrice change pChange

##

## 1 NIFTY 50 Pre Open 12328. -27.1 -0.22

## 2 NIFTY 50 12371. 15.4 0.12

## 3 NIFTY NEXT 50 29009. 30.2 0.1

## 4 NIFTY100 LIQ 15 3794. -11.2 -0.290

## 5 NIFTY BANK 31661. -193. -0.6

## 6 INDIA VIX 14.4 0.24 1.67

## 7 NIFTY 100 12486. 15.2 0.12

## 8 NIFTY 500 10125. 15.4 0.15

## 9 NIFTY MIDCAP 100 18037. 52.1 0.290

## 10 NIFTY MIDCAP 50 4978. 9.5 0.19

## # ... with 45 more rows

**Top gainers for the last trading session.**

nse\_stock\_top\_gainers()

## # A tibble: 10 x 12

## symbol series last\_corp\_annou~ last\_corp\_annou~ open\_price high\_price

##

## 1 BHART~ EQ 2019-04-23 Rights 19:67 @ ~ 475. 499.

## 2 RELIA~ EQ 2019-08-02 Annual General ~ 1554. 1572.

## 3 HEROM~ EQ 2019-07-16 Annual General ~ 2445 2475.

## 4 WIPRO EQ 2020-01-24 Interim Dividen~ 252 254.

## 5 M&M EQ 2019-07-18 Annual General ~ 567. 574.

## 6 NESTL~ EQ 2019-12-10 Interim Dividen~ 15399 15600

## 7 DRRED~ EQ 2019-07-15 Annual General ~ 2944. 2990

## 8 UPL EQ 2019-07-02 Bonus 1:2 590. 597.

## 9 EICHE~ EQ 2019-07-24 Annual General ~ 21509. 21770

## 10 ULTRA~ EQ 2019-07-10 Annual General ~ 4440 4522.

## # ... with 6 more variables: low\_price , last\_traded\_price ,

## # prev\_close\_price , percent\_change , traded\_quantity ,

## # turnover\_in\_lakhs

# retain original column names as returned by NSE

nse\_stock\_top\_gainers(clean\_names = FALSE)

## # A tibble: 10 x 12

## symbol series lastCorpAnnounc~ lastCorpAnnounc~ openPrice highPrice

##

## 1 BHART~ EQ 2019-04-23 Rights 19:67 @ ~ 475. 499.

## 2 RELIA~ EQ 2019-08-02 Annual General ~ 1554. 1572.

## 3 HEROM~ EQ 2019-07-16 Annual General ~ 2445 2475.

## 4 WIPRO EQ 2020-01-24 Interim Dividen~ 252 254.

## 5 M&M EQ 2019-07-18 Annual General ~ 567. 574.

## 6 NESTL~ EQ 2019-12-10 Interim Dividen~ 15399 15600

## 7 DRRED~ EQ 2019-07-15 Annual General ~ 2944. 2990

## 8 UPL EQ 2019-07-02 Bonus 1:2 590. 597.

## 9 EICHE~ EQ 2019-07-24 Annual General ~ 21509. 21770

## 10 ULTRA~ EQ 2019-07-10 Annual General ~ 4440 4522.

## # ... with 6 more variables: lowPrice , ltp ,

## # previousPrice , netPrice , tradedQuantity ,

## # turnoverInLakhs

**Stocks that have touched their 52 week highs during the day**

nse\_stock\_year\_high()

## # A tibble: 55 x 10

## symbol symbol\_desc date new\_high year last\_traded\_pri~ prev\_high

##

## 1 AGCNET AGC Networ~ 2020-01-16 202. 202. 202. 193.

## 2 ALKYL~ Alkyl Amin~ 2020-01-16 1300 1300 1297. 1300

## 3 APOLL~ Apollo Pip~ 2020-01-16 408. 408. 403 399

## 4 AUBANK AU Small F~ 2020-01-16 888 888 874. 885.

## 5 AVANT~ Avanti Fee~ 2020-01-16 770 770 732. 756

## 6 BAJAJ~ Bajaj Fins~ 2020-01-16 9681. 9681. 9656 9640

## 7 BALKR~ Balkrishna~ 2020-01-16 1112. 1112. 1096 1107.

## 8 BCP B.C. Power~ 2020-01-16 20.2 20.2 19.0 20.0

## 9 BERGE~ Berger Pai~ 2020-01-16 556. 556. 554. 550

## 10 BHART~ Bharti Air~ 2019-12-02 499. 499. 493. 486.

## # ... with 45 more rows, and 3 more variables: prev\_close ,

## # change , percent\_change

# retain original column names as returned by NSE

nse\_stock\_year\_high(clean\_names = FALSE)

## # A tibble: 55 x 10

## symbol symbolDesc dt value year ltp value\_old prev

##

## 1 AGCNET AGC Netwo~ 2020-01-16 202. 202. 202. 193. 193.

## 2 ALKYL~ Alkyl Ami~ 2020-01-16 1300 1300 1297. 1300 1296.

## 3 APOLL~ Apollo Pi~ 2020-01-16 408. 408. 403 399 395.

## 4 AUBANK AU Small ~ 2020-01-16 888 888 874. 885. 877.

## 5 AVANT~ Avanti Fe~ 2020-01-16 770 770 732. 756 746.

## 6 BAJAJ~ Bajaj Fin~ 2020-01-16 9681. 9681. 9656 9640 9622.

## 7 BALKR~ Balkrishn~ 2020-01-16 1112. 1112. 1096 1107. 1103.

## 8 BCP B.C. Powe~ 2020-01-16 20.2 20.2 19.0 20.0 19.6

## 9 BERGE~ Berger Pa~ 2020-01-16 556. 556. 554. 550 547.

## 10 BHART~ Bharti Ai~ 2019-12-02 499. 499. 493. 486. 474.

## # ... with 45 more rows, and 2 more variables: change , pChange