

Package ‘rpredictit’

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Title Interface to the 'PredictIt' API

Version 0.0.2

Description Wrapper to retrieve market data, explore available markets, and plot historical price data from the 'PredictIt' public API (<<https://www.predictit.org/api/marketdata/all/>>). The package comes with a demo 'shiny' application for illustrating example use cases. License to use data made available via the API is for non-commercial use and 'PredictIt' is the sole source of such data.

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Encoding UTF-8

LazyData true

Imports httr, jsonlite, dplyr, DT, dygraphs, magrittr, stringr, quantmod, xts, shiny

RoxygenNote 7.0.2

URL <https://github.com/danielkovtun/rpredictit>

BugReports <https://github.com/danielkovtun/rpredictit/issues>

Suggests testthat (>= 2.1.0), knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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all_markets	<i>Get bids and asks for all 'PredictIt' markets</i>
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Description

Wrapper function to get all available 'PredictIt' markets and contract prices.

Usage

```
all_markets()
```

Value

A [tibble](#) containing bid and ask data for all 'PredictIt' markets.

Examples

```
markets <- all_markets()
markets
```

format_market_data	<i>Format bid and ask market data with HTML</i>
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Description

Wrapper function to apply HTML formatting to 'PredictIt' market data. Can be displayed in a shiny app, or standalone in an `htmlwidget` (e.g. [datatable](#)).

Usage

```
format_market_data(data)
```

Arguments

`data` 'PredictIt' market data, of class `data.frame` or `tibble`, as returned by [all_markets\(\)](#) or [tweet_markets\(\)](#).

Value

A [tibble](#) containing bid and ask data formatted with HTML tags and user-friendly column names.

Examples

```
## Only run this example in interactive R sessions
if (interactive()) {
  data <- all_markets()
  format_market_data(data)
}
```

historical_plot	<i>Plot historical contract data obtained from the 'PredictIt' website</i>
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Description

Function to make an interactive `dygraphs::dygraph` plot of historical contract data.

Usage

```
historical_plot(contract_data)
```

Arguments

`contract_data` Named list containing contract name and data of class `xts`, as returned by `parse_historical_csv()`.

Value

Interactive `dygraphs::dygraph` plot containing time series data for contract 'close' prices.

Examples

```
filename <- "What_will_be_the_balance_of_power_in_Congress_after_the_2020_election.csv"
csv_path <- system.file("extdata", filename, package = "rpredictit")
contract_data <- parse_historical_csv(csv_path)
historical_plot(contract_data)
```

markets_table	<i>Get JavaScript datatable containing bids and asks for all 'PredictIt' markets</i>
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Description

Wrapper function to return a `datatable` containing 'PredictIt' market data. Can be displayed in a `shinyApp`, RMarkdown document, or exported via `saveWidget()`.

Usage

```
markets_table(data)
```

Arguments

`data` 'PredictIt' market data, of class `data.frame` or `tibble`, as returned by `all_markets()` or `tweet_markets()`.

Value

An interactive `datatable` object containing formatted bid and ask data for the provided market data.

Examples

```
data <- all_markets()
markets_table(data)
```

`parse_historical_csv` *Parse csv file containing historical OHLCV data*

Description

Helper function to parse a 'csv' file obtained from the 'PredictIt' website, containing historical 'OHLCV' (Open, High, Low, Close, Volume) data, into an object of class `xts`.

Usage

```
parse_historical_csv(csv_path, filename = NA)
```

Arguments

`csv_path` Path to a 'csv' file containing historical 'OHLCV' data for a specific contract. Expected format is the same schema as the 'csv' file downloaded from the 'PredictIt' website.

`filename` Optional name to give the 'csv' file when the filepath is derived from a temporary directory.

Value

A named list containing the following elements:

data An S3 object of class `xts`. Time series containing the 'close' price data for the contract provided.

contract A `character` representing the contract name, derived from the input file name. If a `filename` argument is provided, the contract name will be assigned to that value.

Examples

```
filename <- "What_will_be_the_balance_of_power_in_Congress_after_the_2020_election.csv"
csv_path <- system.file("extdata", filename, package = "rpredictit")
parse_historical_csv(csv_path)
```

runExample	<i>Run rpredictit examples</i>
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Description

Launch a rpredictit example Shiny app that shows how to easily use rpredictit in an app.

Run without any arguments to see a list of available example apps.

Usage

```
runExample(example)
```

Arguments

example	The app to launch
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Value

None. Runs a demo Shiny application. This function normally does not return; interrupt R to stop the application.

Examples

```
## Only run this example in interactive R sessions
if (interactive()) {
  # List all available example apps
  runExample()

  runExample("demo")
}
```

single_market	<i>Get bids and asks for a specific 'PredictIt' market</i>
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Description

Wrapper function to get data for a specific market.

Usage

```
single_market(id)
```

Arguments

id	Numerical code pertaining to the market. You can find a market's numerical code by consulting its URL or by first calling the all markets API.
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Value

A [tibble](#) containing bid and ask data for a specific 'PredictIt' market.

Examples

```
## Only run this example in interactive R sessions
if (interactive()) {
  markets <- all_markets()
  id <- markets$id[1]
  single_market(id)
}
```

tweet_markets	<i>Get bids and asks for all 'PredictIt' tweet markets</i>
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Description

Wrapper function to get all available 'PredictIt' tweet count markets and contract prices.

Usage

```
tweet_markets()
```

Value

A [tibble](#) containing bid and ask data for all tweet count markets.

Examples

```
## Only run this example in interactive R sessions
if (interactive()) {
  tweet_markets()
}
```

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