Package ‘rchess’

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Version 0.1
Title Chess Move, Generation/Validation, Piece Placement/ Movement, and Check/Checkmate/Stalemate Detection
Description R package for chess validations, pieces movements and check detection. Also integrates functions to plot chess boards given a Forsyth Edwards and Portable Game notations.
Author Joshua Kunst <jbkunst@gmail.com>
Maintainer Joshua Kunst <jbkunst@gmail.com>
License MIT + file LICENSE
URL https://github.com/jbkunst/rchess
BugReports https://github.com/jbkunst/rchess/issues
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R topics documented:

Chess .............................................. 2
chessboardjs .................................... 2
chessboardjsOutput .............................. 3
chessopenings ................................... 3
chesswc .......................................... 4
ggchessboard .................................... 5
rchess ............................................. 6
renderChessboardjs ............................. 6

Index 7
Chess                Chess Class

Description
Chees class.

Usage
Chess

Format
Class 'R6ClassGenerator' <environment: 0x03cdd80c>
- attr(*, "name") = chr "Chess_generator"

chessboardjs        Plot a chessboard via chessboardjs

Description
Function to show the fen string in a chessboard widget.

Usage
chessboardjs(fen = "rnbqkbnr/pppppppp/8/8/8/8/8/8/PPPPPPPP/RNBQKBNR w KQkq - 0 1",
width = 300, height = 300)

Arguments
fen          Fen notation of a chessboard
width        Width in pixels
height       Height in pixels

Value
The chessboardjs board

Examples
chessboardjs()
**chessboardjsOutput**

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**chessboardjsOutput**  
*Widget output function for use in Shiny*

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**Description**

Widget output function for use in Shiny

**Usage**

```r
chessboardjsOutput(outputId, width = "100\%", height = "400px")
```

**Arguments**

- `outputId`  
  Id of the div tag
- `width`  
  Width in pixels
- `height`  
  Height in pixels

---

**chessopenings**  
*Chess openings data*

---

**Description**

This data comes from the chess Chess Opening Theory wikibook [https://en.wikibooks.org/wiki/Chess_Opening_Theory](https://en.wikibooks.org/wiki/Chess_Opening_Theory). The openings were parse using `rvest` package.

**Usage**

```r
chessopenings
```

**Format**

A data frame with 544 observations and 3 variables.

**Links**

Variables

- eco: The game’s opening classification
- name: Games’s location
- pgn: The game’s pgn

Examples

```r
data(chessopenings)
library("dplyr")
head(chessopenings)
```

### Description

This data comes from the [http://www.theweekinchess.com/](http://www.theweekinchess.com/) site and represent 1,266 games in the FIDE World Cupo 11, 13 & 15. The data has been parsed from the downloaded pgn files using [https://github.com/jbkunst/chess-db](https://github.com/jbkunst/chess-db) scripts.

### Usage

```r
chesswc
```

### Format

A data frame with 1,266 observations and 11 variables.

### Links


### Variables

- event: Games’s event
- site: Games’s location
- date: Game’s date
- round: Games’s round
- white: White player’s name
- black: Black player’s name
- result: Game’s result
- whiteelo: White player’s elo rating
- blackelo: Black player’s elo rating
- eco: The game’s opening classification
- pgn: The game’s pgn
ggchessboard

Examples

data(chesswc)
library("dplyr")
count(chesswc, event)

---

**ggchessboard**

*Plot a fen representation chessboard via ggplot2*

---

**Description**

Function to show the fen string in ggplot2.

**Usage**

```r
ggchessboard(fen = "rnbqkbnr/pppppppp/8/8/8/8/8/8 w kqkq - 0 1",
cellcols = c("#D2B48C", "#F5F5DC"), perspective = "white",
piecesize = 15)
```

**Arguments**

- **fen**: Fen notation of a chessboard
- **cellcols**: A 2 length vector for the cell colors
- **perspective**: A string to show the perspective (black, white)
- **piecesize**: Size of the unicode texts

**Value**

A ggplot object

**Examples**

```r
ggchessboard()

ggchessboard(fen = "rnbqkbnr/pp1ppppp/8/2p5/4P3/8/PPP1PPP/RNBQKBNR w KQkq c6 0 2")

ggchessboard(fen = "rnbqkbnr/pp1ppppp/8/2p5/4P3/8/PPP1PPP/RNBQKBNR w KQkq c6 0 2",
cellcols = c("#CCCCCC", "#FAFAFA"),
piecesize = 17,
perspective = "black")
```
**rchess**

Package for chess move, generation/validation, piece placement/movement, and check/checkmate/stalemate detection

**renderChessboardjs**

Widget render function for use in Shiny

**Description**

Package for chess move, generation/validation, piece placement/movement, and check/checkmate/stalemate detection

**Usage**

```r
renderChessboardjs(expr, env = parent.frame(), quoted = FALSE)
```

**Arguments**

- **expr**: Expression
- **env**: Environment
- **quoted**: Quoted
Index

Topic datasets
  Chess, 2

Chess, 2
chessboardjs, 2
chessboardjsOutput, 3
chessopenings, 3
chesswc, 4

ggchessboard, 5

rchess, 6
rchess-package (rchess), 6
renderChessboardjs, 6