Package 'wikibooks'

October 12, 2022

Type Package

Title Functions and Datasets of the German WikiBook ``GNU R''

Version 0.2.1

Date 2022-05-10

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Depends R (>= 2.1.0)

Description The german Wikibook ``GNU R'' introduces R to new users. This package is a collection of functions and datas used in the german WikiBook ``GNU R''.

License GPL (>= 2)

URL https://de.wikibooks.org/wiki/GNU_R

Repository CRAN

LazyData true

Date/Publication 2022-05-10 12:30:02 UTC

NeedsCompilation no

R topics documented:

`wikibooks-package` *Functions and datasets of the german WikiBook "GNU R"*

Description

The german Wikibook "GNU R" introduces R to new users. This package is a collection of functions and datas used in the german WikiBook "GNU R".

Details

Package:	wikibooks
Type:	Package
Version:	0.2.1
Date:	2007-05-10
License:	GPL version 2 or newer

Author(s)

Joerg Schlarmann (aka Produnis)

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References

https://de.wikibooks.org/wiki/GNU_R

`Abschlussnote` *Calculation of a fictive graduation mark*

Description

This function calculates a fictive graduation mark, which is set together by three grades. This is used in the Wikibook-Section "Programmierbeispiele"

Usage

```
Abschlussnote(x, y, z)
```

Arguments

`x`	The first grade
`y`	The second grade
`z`	The third grade

Author(s)

Joerg Schlarmann

References

https://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele

Examples

```
#Your three grades are 1.3, 1.7, 2.8
Abschlussnote(1.3, 1.7, 2.8)
```

---

bsp1 *Datatable of Example 1*

Description

This is a data-table, used in example 1

Usage

```
data(bsp1)
```

Format

A data frame with 10 observations on the following 4 variables.

`Geschlecht` a factor with levels `m` `w`, giving the sex

`Alter` a numeric vector

`Gewicht` a numeric vector, giving the weight

`Groesse` a numeric vector, giving the height

Source

https://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_1

bsp2 *Datatable of Example 2*

Description

This is a data-table, used in example 2

Usage

```
data(bsp2)
```

Format

A data frame with 20 observations on the following 2 variables.

`Geschlecht` a factor with levels `m` `w`, giving the sex

`Note` a numeric vector, giving the grade

Source

https://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_2

bsp3 *Datatable of Example 3*

Description

This is a data-table, used in example 3

Usage

```
data(bsp3)
```

Format

A data frame with 14 observations on the following 2 variables.

`Erfolg` a factor with levels `0` `1`, giving success

`Abschlussnote` a numeric vector, giving the grade

Source

https://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_3

bsp4 *Datatable of Example 4*

Description

This is a data-table, used in example 4

Usage

```
data(bsp4)
```

Format

A data frame with 7 observations on the following 4 variables.

`Name` a factor giving people's names

`Geschlecht` a factor giving people's sex

`Lieblingsfarbe` a factor giving people's colour

`Einkommen` a numeric vector, giving people's earnings

Source

https://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_4

Bundesliga *Results and fixtures of the german football-league "Bundesliga"*

Description

This data-set contains the fixtures and results of the german football-league "Bundesliga" from 1963 - 2007.

Usage

```
data(Bundesliga)
```

Format

A data frame with 13406 observations on the following 10 variables.

`Saison` the season

`Spieltag` the matchday

`Datum` Date of the match

`Anpfiff` kick-off (Hour:Minute)

`Heim` home-team's name

`Gast` guest-team's name

`Tore.Heim` home-team's goals at end of match

`Tore.Gast` guest-team's goals at end of match

`Tore.Heim.Halbzeit` home-team's goals at end of halftime

`Tore.Gast.Halbzeit` guest-team's goals at end of halftime

Source

fTip Database https://github.com/ftip

Bundesliga.Mannschaft *Show all matches of one team during one or all seasons*

Description

This function (written for the "Bundesliga"-dataset) shows all matches of a selected team during one specific or all available seasons.

Usage

```
Bundesliga.Mannschaft(Mannschaft, Saison = "all")
```

Arguments

`Mannschaft`	a team (e.g. "FC Schalke 04")
`Saison`	a season (e.g. "2001/2002") or "all" for all season

Author(s)

produnis

References

fTip-Database https://github.com/ftip

See Also

`Bundesliga.Tabelle`

Examples

```
## select one season
Bundesliga <- wikibooks::Bundesliga
Bundesliga.Mannschaft("FC Schalke 04", "2006/2007")

## use all seasons
Bundesliga <- wikibooks::Bundesliga
Bundesliga.Mannschaft("FC Schalke 04")

## see a list of all teams of season 1993/1994:
unique(Bundesliga$Gast[Bundesliga$Saison=="1993/1994"])
Bundesliga.Mannschaft("1. FC Nuernberg", "1993/1994")
```

Bundesliga.Tabelle *Team-Rankings at matchday*

Description

This function (written for the "Bundesliga"-dataset) shows team-rankings at specific matchdays of a season.

Usage

```
Bundesliga.Tabelle(Saison, Spieltag = 1, output = "Tabelle")
```

Arguments

Saison	the season, e.g. "1998/1999"
Spieltag	a matchday, e.g. 3
output	use "Tabelle" if you want the teamrankings at the selected matchday. Use "Platzierung" for an overview of the team-rankings during the season

Author(s)

produnis

References

fTip-Database https://github.com/ftip

See Also

Bundesliga.Mannschaft

Examples

```
## Showing the ranking at matchday 34
Bundesliga <- wikibooks::Bundesliga
Bundesliga.Tabelle("1963/1964", 34, "Tabelle")

## Showing team-rankings for season 2006/2007
Bundesliga <- wikibooks::Bundesliga
Bundesliga.Tabelle("2006/2007", output="Platzierung")
```

`Bundesliga.XML` *create an XML-file of all fixtures available in "Bundesliga"-dataset*

Description

This function creates an XML-file of all fixtures available in the "Bundesliga"-dataset. By default, the XML-file is called "Bundesliga.xml" and is stored in your working directory using the function sink().

Usage

```
Bundesliga.XML(Datei = "Bundesliga.xml", Saison = "all")
```

Arguments

`Datei`	filename, by default "Bundesliga.xml"
`Saison`	season to be included, by default "all" for all seasons

Author(s)

Joerg Schlarmann

See Also

sink

Examples

```
## Not run:
# this saves all season to file "Bundesliga.xml"
Bundesliga.XML()

#this writes only season 2001/2002 to "myfile.xml"
Bundesliga.XML("myfile.xml", "2001/2002")

## End(Not run)
```

cms *Dataset of an assessment instrument*

Description

A dataset ment to be used for the "sens.spec"-function of the wikibooks-package

Usage

```
data(cms)
```

Format

A data frame with 620 observations on the following 2 variables.

`ascore` scores of the assessment-instrument

`arisk` definition whether "ascore" leads to positive group (1) oder negative group (0)

Details

This dataset contains the scores of an assessment-instrument and whether the probands belong to positive or negative group. Data is ment to be used with the "sens.spec"-function of the wikibook-package.

Source

https://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2

Essen.Zeit *How long does it take to give food in nursing home*

Description

A datasset of a students "evidence based nursing project (ebnp)" with the question how long it takes to give food to patients in a nursing home

Usage

```
data(Essen.Zeit)
```

Format

A data frame with 63 observations on the following 22 variables.

`PATID` patient id

`ALTER` patient's age

`SEX` patient's sex

`STUFE` patient's "Pflegestufe"

`MAHLZEIT` patient's meal (supper, breakfast, lunch)

`ORT` place

`SPEILAGE` describing, where the meal was parked

`PATLAGE` describing where the patient was sitting or lying

`PATPOSIT` patient's heading section

`NAHRART` describing whether the meal was reduced to small pieces

`HILF1` help-medium 1

`HILF2` help-medium 2

`HILF3` help-medium 3

`HILF1HOW` quantity of help-mediums

`TRUNK1` drink

`TRUNK1ML` quantity of drinking (in ml)

`TRUNK2` drink 2

`TRUNK2ML` quantity of drinking (in ml)

`PERSON` person giving food to patient

`ZEIT` time, how long it took to give food

`BREAK` describing whether there was a break

`PORTION` describing how much food was given

`Mikrolagerung` *pressure at sacral-bone: 30 degree vs. micro-positioning*

Description

Dataset of a german students "evidence based nursing project (ebnp)" with the question what pressure at the sacral-bone-area can be measured using 30 degree and micro-positioning

Usage

```
data(Mikrolagerung)
```

Format

A data frame with 98 observations on the following 21 variables.

`PROBAND` ID

`ALTER` age

`GROESSE` height

`GEWICHT` weight

`BMI` Body-Mass-Index

`HUEFTE` Hip circumference

`SEX` proband's sex

`RETEST` test or retest

`KOPFTEIL` position of head section

`RE30` pressure at sacral-bone-area while lying 30 degree to the right side

`SCHU_RE` true angel assessed at right shoulder during 30 degree positioning to the right side

`BECK_RE` true angel assessed at right pelvis during 30 degree positioning to the right side

`LI30` pressure at sacral-bone-area while lying 30 degree to the left side

`SCHU_LI` true angel assessed at right shoulder during 30 degree positioning to the left side

`BECK_LI` true angel assessed at right pelvis during 30 degree positioning to the left side

`MIKRO1A` pressure at sacral-bone-area while micro-positioning at right shoulder

`MIKRO1B` pressure at sacral-bone-area while micro-positioning at right pelvis

`MIKRO1C` pressure at sacral-bone-area while micro-positioning at left shoulder

`MIKRO1D` pressure at sacral-bone-area while micro-positioning at left pelvis

`MIKRO2A` pressure at sacral-bone-area while micro-positioning at right pelvis and shoulder

`MIKRO2B` pressure at sacral-bone-area while micro-positioning at left pelvis and shoulder

Details

While lying in bed, pressure is the main reason why patients get a pressure-ulcer. The aim of this EBNP was to get knowledge about how pressure differs during various positionings. The probands where positioned to the left and to the right side by 30 degrees while lying in a bed. Each time, the pressure at the sacral-bone-area was measured, as at this area a pressure-ulcer arises very often. After that, pressure was assessed while probands where positioned by micro-positioning at left and right shoulder and pelvis.

`sens.spec` *sensitivity and specificity of an assessment instrument*

Description

This function generates sensitivity and specificity for all possible cut-off-points of an assessment instrument using the assessment-scores.

Usage

```
sens.spec(x, y, risk = 1, dir = "LESS", plot = F)
```

Arguments

`x`	score of an assessment-instrument (numeric)
`y`	a factor which classify x to positive or negative group
`risk`	y-value for the positive group (e.g. 1 or "y"))
`dir`	"LESS" if a low (x) leads to positive group; "GREATER" whether a high (x) leads to positive group
`plot`	logical whether a plot should be generated

Author(s)

Produnis

References

https://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2

Examples

```
# Using the cms-Dataset
## Not run: sens.spec(cms$ascore, cms$arisk, risk=1)
```

Index