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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
Date: 2007-06-20
License: GPL version 2 or newer

Author(s)

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References

http://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

http://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

http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_1
**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.

<table>
<thead>
<tr>
<th>Geschlecht</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td></td>
</tr>
<tr>
<td>w</td>
<td></td>
</tr>
</tbody>
</table>

Source
http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_2

**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.

<table>
<thead>
<tr>
<th>Erfolg</th>
<th>Abschlussnote</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source
http://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**

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

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**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  http://sourceforge.net/projects/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)

Joerg Schlarmann

References

fTip-Database  http://sourceforge.net/projects/ftip

See Also

Bundesliga.Tabelle
Examples

```r
## select one season
data(Bundesliga)
Bundesliga.Mannschaft("FC Schalke 04", "2006/2007")

## use all seasons
data(Bundesliga)
Bundesliga.Mannschaft("FC Schalke 04")

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

---

**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)**

Joerg Schlarmann

**References**

fTip-Database [http://sourceforge.net/projects/ftip](http://sourceforge.net/projects/ftip)

**See Also**

`Bundesliga.Mannschaft`
**Examples**

```r
## Showing the ranking at matchday 34
data(Bundesliga)
Bundesliga.Tabelle("1963/1964", 34, "Tabelle")

## Showing team-rankings for season 2006/2007
data(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**

```r
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**

```r
# 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")
```
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 wether "ascore" leads to positive group (1) oder negative group (0)

Details

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

Source

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

How long does it take to give food in nursing home

Description

A dataset 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

Description

Dataset of a German student’s "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
GROSSE  height
GEWICHT  weight
BMI  Body-Mass-Index
HUFEITE  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.
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" wether a high (x) leads to positive group
- **plot**: logical wether a plot should be generated

Author(s)

Produnis

References

[http://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2](http://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2)

Examples

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