X XORNADA DE USUARIOS DE R EN GALICIA

LA (R)EVOLUCIÓN DE LOS ENTORNOS GRÁFICOS DE USUARIO (GUI) PARA R

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Al principio era la consola....

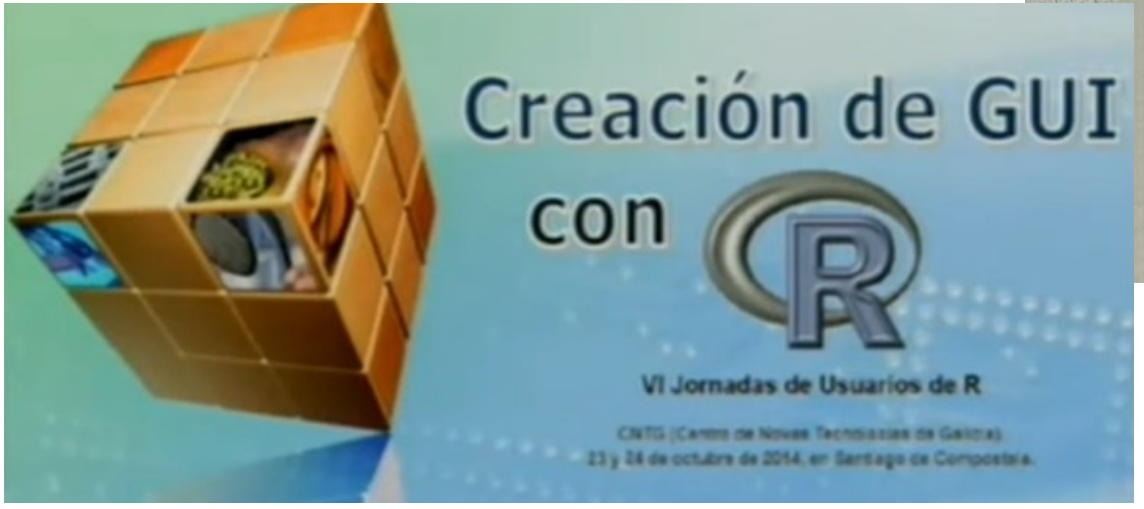
(Juan 1:1)

Los orígenes de los GUI:

gWidgets

gWidgets2

https://cran.r-project.org/web/packages/gWidgets/index.html
https://cran.r-project.org/web/packages/gWidgets2/index.html



https://www.youtube.com/watch?v=HcWlEyNCOeE

Los primeros packages:

- JGR
- Deducer
- Rkward
- R Commander

https://rforge.net/JGR/

https://www.deducer.org/

https://rkward.kde.org/

https://socialsciences.mcmaster.ca/jfox/Misc/Rcmdr/

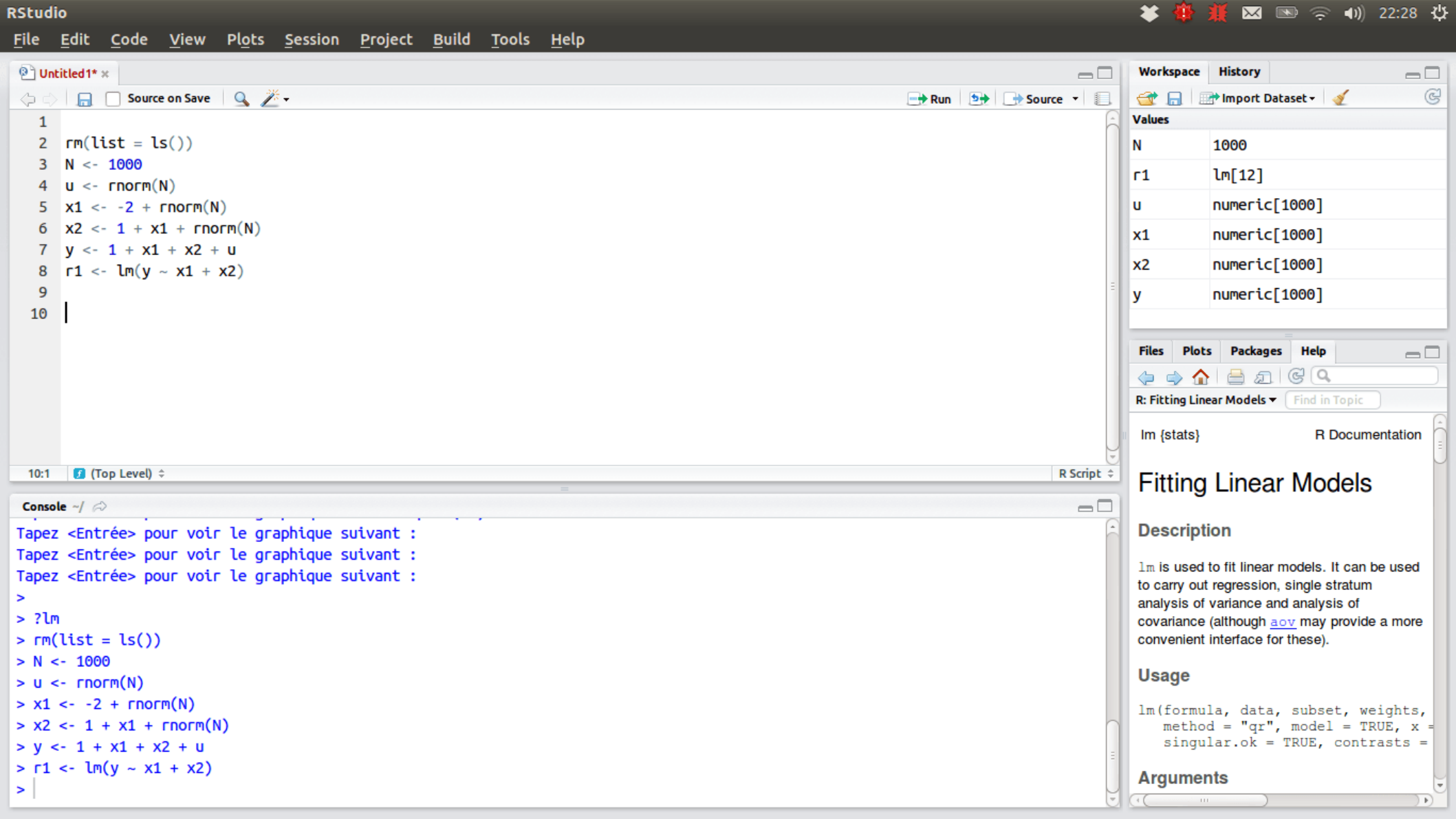
La primera evolución:

RStudio

Shiny

https://posit.co/download/rstudio-desktop/

https://shiny.posit.co/


RStudio
22:28
File Edit Code View Plots Session Project Build Tools Help
Untitled1*
Source on Save
Run
Source
1 rm(list = ls())
2 N <- 1000
3 u <- rnorm(N)
4 x1 <- -2 + rnorm(N)
5 x2 <- 1 + x1 + rnorm(N)
6 y <- 1 + x1 + x2 + u
7 r1 <- lm(y ~ x1 + x2)
8
9
10
10:1 (Top Level) R Script
Workspace History
Import Dataset
Values
N 1000
r1 lm[12]
u numeric[1000]
x1 numeric[1000]
x2 numeric[1000]
y numeric[1000]
Files Plots Packages Help
R: Fitting Linear Models
Find in Topic
lm {stats} R Documentation
Fitting Linear Models
Description
lm is used to fit linear models. It can be used to carry out regression, single stratum analysis of variance and analysis of covariance (although aov may provide a more convenient interface for these).
Usage
lm(formula, data, subset, weights,
method = "qr", model = TRUE, x =
singular.ok = TRUE, contrasts =
Arguments
Console ~/
Tapez <Entrée> pour voir le graphique suivant :
Tapez <Entrée> pour voir le graphique suivant :
Tapez <Entrée> pour voir le graphique suivant :
>
> ?lm
> rm(list = ls())
> N <- 1000
> u <- rnorm(N)
> x1 <- -2 + rnorm(N)
> x2 <- 1 + x1 + rnorm(N)
> y <- 1 + x1 + x2 + u
> r1 <- lm(y ~ x1 + x2)
>

SIMCA

Sistema de Información sobre Mortalidade por Cancro de Galicia .

XUNTA DE GALICIA
CONSELLERÍA DE SANIDADE
Dirección Xeral de Saúde Pública

Melisa

Seleccione:

Tipo de cancro
Colon

Indicador
Tendencia (taxa axustada)

Poboación estándar
Censo de Galicia 2011

Truncar taxa

Sexo
Homes | Mulleres | Total

Ámbito xeográfico de interese
Galicia | EOXI | Provincia

Período:
1980 — 2020
1980 1988 1996 2004 2012 2020

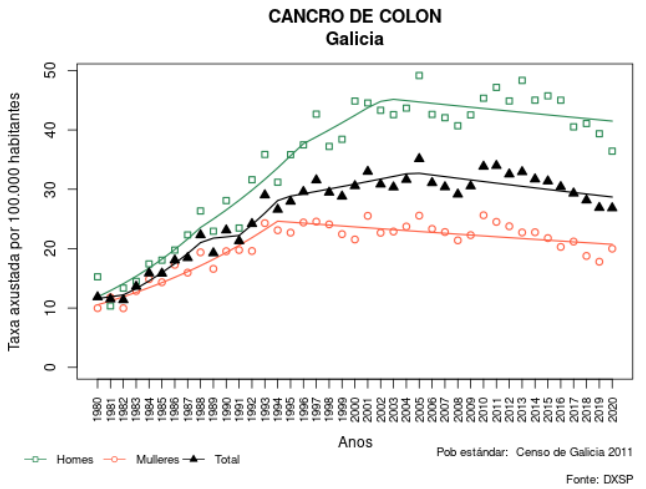
Enderezo de contacto:

Servizo de Epidemioloxía
Dirección Xeral de Saúde Pública
Edificio administrativo San Lázaro s/n
15703, Santiago de Compostela
A Coruña, España
e-mail: Estatistica.SP@sergas.es

TÁBOA DE DATOS | GRÁFICO | DOCUMENTACIÓN

Visualizar gráfico

Gráfico



Selección

SIMCA: *Sistema de Información sobre Mortalidade por Cancro de Galicia*

CANCRO: Colon

INDICADOR: Tendencia (taxa axustada por 100.000 habitantes)

POBOACIÓN ESTÁNDAR: Censo de Galicia 2011

SEXO: Homes | Mulleres | Total

ÁMBITO XEOGRÁFICO: Galicia

PERÍODO: 1980-2020

Descarga

JPEG | PNG | PDF

Visualización interactiva de datos de Saúde

[Creación de dashboards con Shiny]

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Dirección Xeral de Saúde Pública. Consellería de Sanidade. Xunta de Galicia

IX XORNADA DE USUARIOS DE R EN GALICIA

Prototipado rápido con R:
RAD de aplicaciones Shiny y AEDA de datos

2019

Miguel Ángel Rodríguez Muíños

La segunda evolución:

Radiant

StatET

R-Instat

https://melisagal.shinyapps.io/radiant/

https://projects.eclipse.org/projects/science.statet

https://r-instat.org/

Día de los Datos Abiertos 2021 - A Coruña

Evento online

Sábado, 6 de Marzo de 2021

Más Información

Análisis de datos abiertos con Radiant

Ponente: Miguel Muíños

RADIANT es un entorno gráfico de R para análisis de datos. Una de sus características más destacadas es que podemos usarlo directamente desde un navegador por lo que no es necesario instalarlo ni importa desde qué dispositivo estemos trabajando.

En esta presentación exploraremos, con Radiant, datos abiertos publicados por el ayuntamiento de Santiago de Compostela y presentaremos el servidor web Radiant, de acceso libre, de la Asociación MELISA.

La (R)evolución:

JASP

JAMOVI

BlueSky Statistics

JASP

mydata100*

File | Common | +

Descriptives | T-Tests | ANOVA | Regression | Frequencies | Factor

pretest

Filter	Value	Label
✓	58	58
✓	62	62
✓	63	63

	id	workshop	gender	q1	q2	q3	q4	pretest	posttest
1	1	R	Female	4	3	4	5	72	80
2	2	SPSS	Male	3	4	3	4	70	75
3	3	SAS	Female	3	2		3	74	78
4	4	SPSS	Female	5	4	5	3	80	82
5	5	Stata	Female	4	4	3	4	75	81
6	6	SPSS	Female	5	4	3	5	72	77
7	7	R	Female	3	1	3	4	72	88
8	8	R	Female	4	4	2	5	83	92
9	9	SPSS	Female	3	2	2	1	73	76
10	10	SPSS	Female	5	5	5	5	79	84
11	11	SPSS	Male	3	4	4	3	82	83
12	12	SPSS	Female	3	3	3	3	77	81
13	13	SAS	Male	2	2	3	3	73	76
14	14	Stata	Female	5	4	3	4	75	74
15	15	SAS	Female	4	2	4	2	73	77
16	16	Stata	Male	5	4	5	5	81	84
17	17	SAS	Male	3	2	3	3	74	82
18	18	SAS	Female	5	4	5	3	83	86
19	19	R	Female	4	3	2	4	72	86
20	20	R	Male	4	5	4	4	72	84
21	21	SAS	Male	3	2	3	4	76	77
22	22	SAS	Male	1	2	2	1	75	81
23	23	R	Male	2	2	2	3	72	84
24	24	R	Male	3	2	2	5	67	79
25	25	R	Female	3	2	3	3	75	89
26	26	Stata	Female	4	3	2	4	71	76
27	27	SPSS	Female	5	4	3	3	80	90
28	28	Stata	Male	3	2	3	2	70	75
29	29	Stata	Female	4	3	3	3	81	82
30	30	R	Female	4	4	2	3	72	86
31	31	SAS	Male	4	5	4	3	76	77
32	32	SAS	Male	3	4	4	3	79	78

id
workshop
gender
q1
q2
q3
q4

Variables
pretest
posttest

OK

Split

☐ Frequency tables (nominal and ordinal variables)

Plots
☑ Distribution plots
☑ Display density
☐ Correlation plot
☐ Boxplots
☐ Label Outliers
☐ Color
☑ Boxplot Element
☐ Violin Element
☐ Jitter Element

Statistics

https://jasp-stats.org/

Results

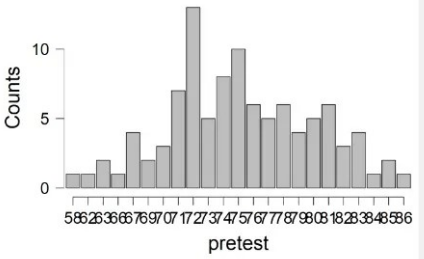
Descriptives

Descriptive Statistics

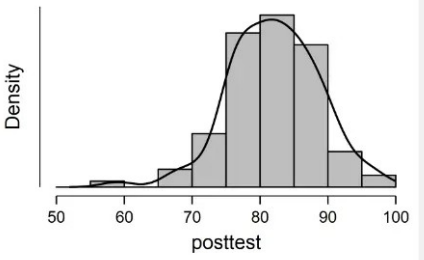
	pretest	posttest
Valid	100	100
Missing	0	0
Mean	74.97	82.06
Std. Deviation	5.296	6.590
Minimum	58.00	59.00
Maximum	86.00	98.00

Distribution Plots

pretest



posttest



iris

Data | Analyses

Exploration | T-Tests | ANOVA | Regression | Frequencies | Factor | Walrus | Modules

	Sepal.Le…	Sepal.Wi…	Petal.Len…	Petal.Width	Species
1	5.1	3.5	1.4	0.2	setosa
2	4.9	3.0	1.4	0.2	setosa
3	4.7	3.2	1.3	0.2	setosa
4	4.6	3.1	1.5	0.2	setosa
5	5.0	3.6	1.4	0.2	setosa
6	5.4	3.9	1.7	0.4	setosa
7	4.6	3.4	1.4	0.3	setosa
8	5.0	3.4	1.5	0.2	setosa
9	4.4	2.9	1.4	0.2	setosa
10	4.9	3.1	1.5	0.1	setosa
11	5.4	3.7	1.5	0.2	setosa
12	4.8	3.4	1.6	0.2	setosa
13	4.8	3.0	1.4	0.1	setosa
14	4.3	3.0	1.1	0.1	setosa
15	5.8	4.0	1.2	0.2	setosa
16	5.7	4.4	1.5	0.4	setosa
17	5.4	3.9	1.3	0.4	setosa
18	5.1	3.5	1.4	0.3	setosa
19	5.7	3.8	1.7	0.3	setosa
20	5.1	3.8	1.5	0.3	setosa
21	5.4	3.4	1.7	0.2	setosa
22	5.1	3.7	1.5	0.4	setosa
23	4.6	3.6	1.0	0.2	setosa
24	5.1	3.3	1.7	0.5	setosa
25	4.8	3.4	1.9	0.2	setosa
26	5.0	3.0	1.6	0.2	setosa
27	5.0	3.4	1.6	0.4	setosa
28	5.2	3.5	1.5	0.2	setosa

Descriptives

Descriptives

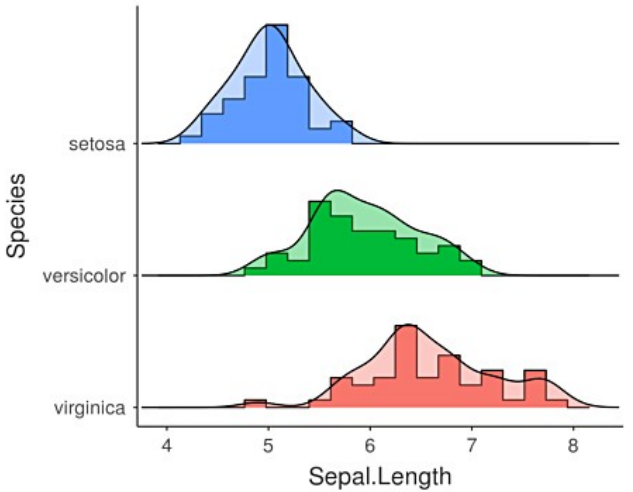
	Species	Sepal.Length	Sepal.Width
Median	setosa	5.000	3.400
	versicolor	5.900	2.800
	virginica	6.500	3.000

JAMOVI

https://www.jamovi.org/

Plots

Sepal.Length



DATASETS | VARIABLES | ANALYSIS | DISTRIBUTION | GRAPHICS | MODEL FITTING | MODEL TUNING | MODEL EVALUATION | FORECASTING | AGREEMENT

Correlation Test | Crosstab | Cluster | Factor Analysis | Means | Missing Values | Non-Parametric | Proportions | Summary | Variance

Dataset1 | caranalysis | Titanic_Train

#	mpg	engine	horse	weight	accel	year	origin	cylind
1	18	307	130	3504	12	70	American	8 Cyli
2	15	350	165	3693	11.5	70	American	8 Cyli
3	18	318	150	3436	11	70	American	8 Cyli
4	16	304	150	3433	12	70	American	8 Cyli
5	17	302	140	3449	10.5	70	American	8 Cyli
6	15	429	198	4341	10	70	American	8 Cyli
7	14	454	220	4354	9	70	American	8 Cyli
8	14	440	215	4312	8.5	70	American	8 Cyli
9	14	455	225	4425	10	70	American	8 Cyli
10	15	390	190	3850	8.5	70	American	8 Cyli
11		133	115	3090	17.5	70	European	4 Cyli
12		350	165	4142	11.5	70	American	8 Cyli
13		351	153	4034	11	70	American	8 Cyli
14		383	175	4166	10.5	70	American	8 Cyli
15		360	175	3850	11	70	American	8 Cyli

DATA | VARIABLES

R EDITOR

```
1  BSkyVersion()
2  ?lm
3  #Summarizing the model
4  BSky_LM_Summary_LinearRegModel1 = summary(LinearRegModel1)
5  BSkyFormat(BSky_LM_Summary_LinearRegModel1, singleTableOutputHeader =
   "Model Summary")
6  #Displaying the Anova table
7  AnovaRes = anova(LinearRegModel1 )
8  BSkyFormat(as.data.frame(AnovaRes), singleTableOutputHeader = "Anova
   table")
9  #Displaying sum of squares table
10 df = as.data.frame(AnovaRes)
```

OUTPUT 1

One Sample t-test

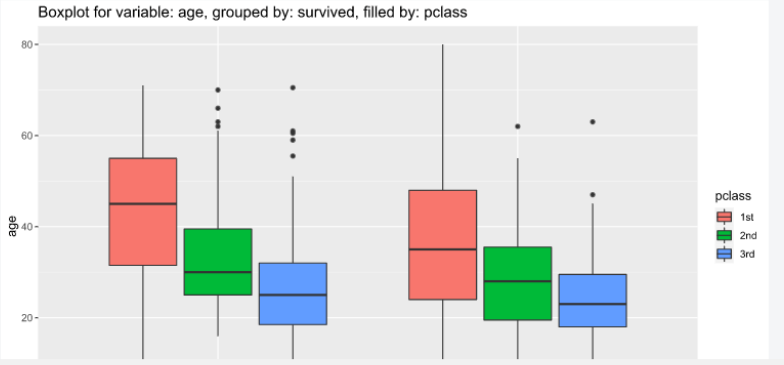
Test Value = 0

	t	df	Sig.(2-tail)	mean difference	confidence: 0.95 lower	confidence: 0.95 upper
mpg	60.0199	397	3.0843e-201 ***	23.5146	22.7444	24.2848
engine	37.1629	405	1.4228e-132 ***	194.0406	183.7763	204.3050
horse	54.4273	399	9.6317e-187 ***	104.8325	101.0459	108.6191

Note:

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Box Plot



BlueSky Statistics © 2022

Split: OFF Zoom: 100%

BlueSky Statistics

https://www.blueskystatistics.com/

GRACIAS!

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