

# SELFY!

Simple statistical app for everyone

What do you want to do?

## Statistical analysis!

[An analysis of one continuous variable](#)

[Study the relationship \(correlation\) between two continuous variables](#)

[Statistical tests for one variable](#)

[Statistical tests for two variables](#)

## Plot data!

Six variables

[Box-and-whisker plot](#)

Two variables

[Scatter plot](#)

Ruth Barral Arca, MSc  
Final python project

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## WHAT is SELFY?

I have met plenty people  
that need to perform  
simple statistical analysis

I decided to create the  
simplest possible app to

SELFY is already running online  
<http://ruthb.pythonanywhere.com/> and is starting to have  
users . Including one from abroad! :)

SELFY motto is “keep it simple”

SELFY was designed to  
be used by people  
without any computer  
programming skills

SELFY has a descriptive  
interface that requires a  
minimal statistical  
knowledge

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## Program structure

SELFY is a flask-python web app

SELFY input is data copied from an excel column or separated by enter

The decimal symbol MUST BE DOT . NOT COMMA ,

SELFY main script is flask\_app.py which contains functions that are divided in the following parts

- Analysis of one continuous variable: contains functions to calculate the mean , the median and so on
- Analysis of the correlation between two variables
- Plot creation : pie charts, bar plots, density plots etc
- Statistical test for one variable
- Statistical test for two variables
- Contact

SELFY has one module called statisticstools.py that contains the majority of functions for statistical analysis used by selfy. The module was created in order to make the code «easier» to read and modify

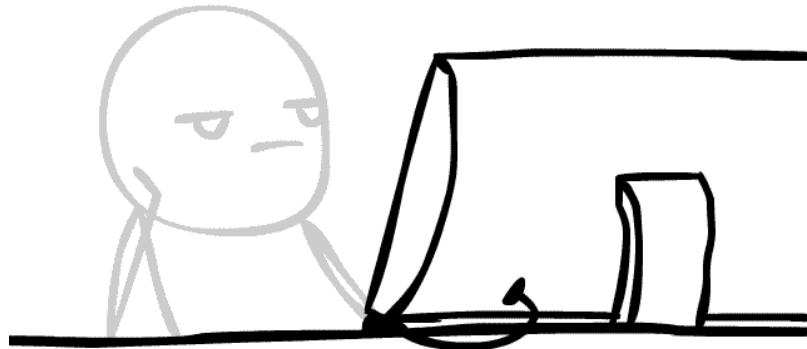
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## Difficulties

The main difficulty was to publish SELFY online I tried several hosting options but no one seem to work properly , even though in my computer selfy worked perfectly . But when running online SELFY crashed or yielded odd errors . Finally when I was starting to think about giving up I came across the host service <https://www.pythonanywhere.com> which wake the hosting process really straight. And SELFY is now ready to use!

**MY CODE ISN'T WORKING ...**



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## EXAMPLES OF USE

Group	weight
T1	34.6
T1	60.2
T1	72.2
T1	20.8
T1	63.3
T1	63.4
T1	47.6
T1	48.0
T1	49.0
T2	66.9
T2	60.9
T2	62.2
T2	74.3
T2	87.7
T2	79.3
T2	77.7
T2	71.7
T2	72.7

Unpaired Two-Samples T Test in SELFY



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How to test data proportions with selfy?

	survived	died
Treatment 1	1659	120
Treatment2	1333	48

Ruth's app for easy data analysis, #SELFY #KEEPIFSIMPLE

Please copy your 1st numeric variable directly from your excel column:

1659  
120

Please copy your 2nd numeric variable directly from your excel column:

1333  
48

- ☐ Test for the equality of two means when data FOLLOW a normal distribution and variances are equal
- ☐ Test for the equality of two means when data FOLLOW a normal distribution and variances are different
- ☐ Test for the equality of two means when data DO NOT follow a normal distribution (each sample should have  $n > 20$ )
- ☐ Test for the equality of two means with paired samples when data FOLLOW a normal distribution
- ☐ Test for the equality of two means with paired samples when data DO NOT follow a normal distribution (each sample should have  $n > 20$ )
- ☐ Test for the equality of variances when data FOLLOW a normal distribution (Bartlett Test)
- ☐ Test for the equality of variances when data DO NOT follow a normal distribution (Levene Test)
- ☒ Test for equality of proportions (your variables must be the rows of a 2x2 contingency table)

Let's do it!

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Do you like SELFY? Do you have any suggestion? Please if you ever have any question or suggestion, don't hesitate to get in touch. SELFY is my very first app , it was handmade with love and I crave for feedback :)

Drop me an email!!