

Python calculator

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Chapter 1

Python calculator VUT FIT IVS project

1.1 Description

Calculator application developed in Python.

Authors

Vladimir Azarov (xazaro00)
Janos Laszlo Vasik (xvasik05)
Lucia Balazova (xbalaz18)
Nikolas Ospaly (xospal01)

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Chapter 2

Namespace Index

2.1 Packages

Here are the packages with brief descriptions (if available):

calc	7
math_lib	21
stddev	24

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

calc.py	Calculator source code developed in Python	27
math_lib.py	Library for basic mathematical functions	30
stddev.py	31

Chapter 4

Namespace Documentation

4.1 calc Namespace Reference

Functions

- def `click_0` ()
Inputs a "0".
- def `click_1` ()
Inputs a "1".
- def `click_2` ()
Inputs a "2".
- def `click_3` ()
Inputs a "3".
- def `click_4` ()
Inputs a "4".
- def `click_5` ()
Inputs a "5".
- def `click_6` ()
Inputs a "6".
- def `click_7` ()
Inputs a "7".
- def `click_8` ()
Inputs a "8".
- def `click_9` ()
Inputs a "9".
- def `click_add` ()
Inputs a "+", to calculate addition.
- def `click_clear` ()
Resets the calculator.
- def `click_decimal` ()
Inputs a decimal separator.
- def `click_delete` ()
Deletes the last character from user input.
- def `click_div` ()
Inputs a "/", to calculate division.
- def `click_fac` ()

- Inputs a "!", to calculate factorial.*
- def `click_mod` ()
 - Inputs a "%", to calculate modulo.*
- def `click_mul` ()
 - Inputs a "*", to calculate multiplication.*
- def `click_pow` ()
 - Inputs a "^", to calculate n-th power.*
- def `click_roo` ()
 - Inputs a root sign, to calculate root.*
- def `click_sub` ()
 - Inputs a "-", to calculate subtraction.*
- def `double_input` ()
 - Checks for double input.*
- def `equals` ()
 - Calculates the result of the input equation, and prints it out in the GUI.*
- def `function_executioner` (user_input)
 - Executes currently entered operation.*
- def `input_formatting` (user_input)
 - Formats user input into a form suitable for the program.*
- def `last_op` (user_input)
 - Returns true if the last character of the input is an operator.*
- def `show_cache` ()
 - Deletes the current input and replaces it with last result.*

Variables

- `background`
 - Color of background in GUI.*
- int `char_limit` = 30
 - Number of maximum characters in input/output.*
- string `current_val` = ""
 - Current equation in cache.*
- `d_num` = tk.StringVar(`window`)
 - Current output shown to user in GUI.*
- list `default_set` = ["#a5c663", "#354f00", "#7b9f35", "#d4ee9f"]
 - List of color schemes.*
- `display` = tk.Label(`window`,textvariable=`d_num`,font= 30)
 - Text label of current output.*
- `head_menu` = tk.Menu(`window`)
 - Main menu.*
- `help_menu` = tk.Menu(`head_menu`, tearoff=0)
 - Sub-menu with help options.*
- `key_0` = tk.Button(`window`,text="0",command=`click_0`,bg=`default_set`[0],fg=`default_set`[1])\
 - Button for inputting a "0".*
- `key_1` = tk.Button(`window`,text="1",command=`click_1`,bg=`default_set`[0],fg=`default_set`[1])\
 - Button for inputting a "1".*
- `key_1_cache` = tk.Button(`window`,text="CACHE",command=`show_cache`, bg=`default_set`[0],fg=`default_set`[1])\
 - Button for showing last result.*
- `key_2` = tk.Button(`window`,text="2",command=`click_2`,bg=`default_set`[0],fg=`default_set`[1])\
 - Button for inputting a "2".*

- `key_3` = `tk.Button(window,text="3",command=click_3,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "3".
- `key_4` = `tk.Button(window,text="4",command=click_4,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "4".
- `key_5` = `tk.Button(window,text="5",command=click_5,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "5".
- `key_6` = `tk.Button(window,text="6",command=click_6,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "6".
- `key_7` = `tk.Button(window,text="7",command=click_7,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "7".
- `key_8` = `tk.Button(window,text="8",command=click_8,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "8".
- `key_9` = `tk.Button(window,text="9",command=click_9,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "9".
- `key_add` = `tk.Button(window,text="+",command =click_add,bg=default_set[0],fg=default_set[1])\n`
Button for calculating addition.
- `key_clear` = `tk.Button(window,text="CLEAR",command =click_clear,bg=default_set[0],fg=default_set[1])\n`
Button for clearing all user input.
- `key_decimal` = `tk.Button(window,text=".",command=click_decimal,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a decimal separator.
- `key_delete` = `tk.Button(window,text="DELETE",command =click_delete,bg=default_set[0],fg=default_set[1])\n`
Button for deleting the last character.
- `key_div` = `tk.Button(window,text="/",command =click_div,bg=default_set[0],fg=default_set[1])\n`
Button for calculating division.
- `key_equals` = `tk.Button(window,text="=",command=equals,bg=default_set[0],fg=default_set[1])\n`
Button for calculating and showing result.
- `key_fac` = `tk.Button(window,text="!",command =click_fac,bg=default_set[0],fg=default_set[1])\n`
Button for calculating factorial.
- `key_mod` = `tk.Button(window,text="%",command =click_mod,bg=default_set[0],fg=default_set[1])\n`
Button for calculating modulo.
- `key_mul` = `tk.Button(window,text="*",command =click_mul,bg=default_set[0],fg=default_set[1])\n`
Button for calculating multiplication.
- `key_pow` = `tk.Button(window,text="^",command =click_pow,bg=default_set[0],fg=default_set[1])\n`
Button for calculating n-th power.
- `key_roo` = `tk.Button(window,text="√",command =click_roo,bg=default_set[0],fg=default_set[1])\n`
Button for calculating n-th root.
- `key_sub` = `tk.Button(window,text="-",command =click_sub,bg=default_set[0],fg=default_set[1])\n`
Button for calculating subtraction.
- `string l_res` = ""
Result of last operation.
- `bool operation_c` = False
Boolean for catching double operation.
- `list operators` = ["+", "*", "/", "%", "^", "!", "√", "-"]
List of valid operators.
- `string solution` = `current_val`
Result of current equation.
- `window` = `tk.Tk()`
Main window of the graphical interface.

4.1.1 Function Documentation

4.1.1.1 click_0()

```
def calc.click_0 ( )
```

Inputs a "0".

4.1.1.2 click_1()

```
def calc.click_1 ( )
```

Inputs a "1".

4.1.1.3 click_2()

```
def calc.click_2 ( )
```

Inputs a "2".

4.1.1.4 click_3()

```
def calc.click_3 ( )
```

Inputs a "3".

4.1.1.5 click_4()

```
def calc.click_4 ( )
```

Inputs a "4".

4.1.1.6 click_5()

```
def calc.click_5 ( )
```

Inputs a "5".

4.1.1.7 click_6()

```
def calc.click_6 ( )
```

Inputs a "6".

4.1.1.8 click_7()

```
def calc.click_7 ( )
```

Inputs a "7".

4.1.1.9 click_8()

```
def calc.click_8 ( )
```

Inputs a "8".

4.1.1.10 click_9()

```
def calc.click_9 ( )
```

Inputs a "9".

4.1.1.11 click_add()

```
def calc.click_add ( )
```

Inputs a "+", to calculate addition.

4.1.1.12 click_clear()

```
def calc.click_clear ( )
```

Resets the calculator.

(empties current values and operation)

4.1.1.13 click_decimal()

```
def calc.click_decimal ( )
```

Inputs a decimal separator.

4.1.1.14 click_delete()

```
def calc.click_delete ( )
```

Deletes the last character from user input.

4.1.1.15 click_div()

```
def calc.click_div ( )
```

Inputs a "/", to calculate division.

4.1.1.16 click_fac()

```
def calc.click_fac ( )
```

Inputs a "!", to calculate factorial.

4.1.1.17 click_mod()

```
def calc.click_mod ( )
```

Inputs a "%", to calculate modulo.

4.1.1.18 click_mul()

```
def calc.click_mul ( )
```

Inputs a "*", to calculate multiplication.

4.1.1.19 click_pow()

```
def calc.click_pow ( )
```

Inputs a "^", to calculate n-th power.

4.1.1.20 click_roo()

```
def calc.click_roo ( )
```

Inputs a root sign, to calculate root.

4.1.1.21 click_sub()

```
def calc.click_sub ( )
```

Inputs a "-", to calculate subtraction.

4.1.1.22 double_input()

```
def calc.double_input ( )
```

Checks for double input.

If it is caught, it calculates the first equation.

4.1.1.23 equals()

```
def calc.equals ( )
```

Calculates the result of the input equation, and prints it out in the GUI.

4.1.1.24 function_executioner()

```
def calc.function_executioner (
    user_input )
```

Executes currently entered operation.

Parameters

<i>user_input</i>	Input from user.
-------------------	------------------

Returns

Result from operation.

4.1.1.25 input_formatting()

```
def calc.input_formatting (
    user_input )
```

Formats user input into a form suitable for the program.

Parameters

<i>user_input</i>	Input from user.
-------------------	------------------

Returns

Formatted input from user.

4.1.1.26 last_op()

```
def calc.last_op (
    user_input )
```

Returns true if the last character of the input is an operator.

Parameters

<i>user_input</i>	Input from user.
-------------------	------------------

Returns

True/False.

4.1.1.27 show_cache()

```
def calc.show_cache ( )
```

Deletes the current input and replaces it with last result.

4.1.2 Variable Documentation

4.1.2.1 background

```
background
```

Color of background in GUI.

4.1.2.2 char_limit

```
int char_limit = 30
```

Number of maximum characters in input/output.

4.1.2.3 current_val

```
string current_val = ""
```

Current equation in cache.

4.1.2.4 d_num

```
d_num = tk.StringVar(window)
```

Current output shown to user in GUI.

4.1.2.5 default_set

```
list default_set = ["#a5c663", "#354f00", "#7b9f35", "#d4ee9f"]
```

List of color schemes.

4.1.2.6 display

```
display = tk.Label(window, textvariable=d_num, font= 30)
```

Text label of current output.

4.1.2.7 head_menu

```
head_menu = tk.Menu(window)
```

Main menu.

4.1.2.8 help_menu

```
help_menu = tk.Menu(head_menu, tearoff=0)
```

Sub-menu with help options.

4.1.2.9 key_0

```
key_0 = tk.Button(window, text="0", command=click_0, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "0".

4.1.2.10 key_1

```
key_1 = tk.Button(window, text="1", command=click_1, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "1".

4.1.2.11 key_1_cache

```
key_1_cache = tk.Button(window, text="CACHE", command=show_cache, bg=default_set[0], fg=default_set[1]) \
```

Button for showing last result.

4.1.2.12 key_2

```
key_2 = tk.Button(window, text="2", command=click_2, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "2".

4.1.2.13 key_3

```
key_3 = tk.Button(window, text="3", command=click_3, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "3".

4.1.2.14 key_4

```
key_4 = tk.Button(window, text="4", command=click_4, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "4".

4.1.2.15 key_5

```
key_5 = tk.Button(window, text="5", command=click_5, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "5".

4.1.2.16 key_6

```
key_6 = tk.Button(window, text="6", command=click_6, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "6".

4.1.2.17 key_7

```
key_7 = tk.Button(window, text="7", command=click_7, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "7".

4.1.2.18 key_8

```
key_8 = tk.Button(window, text="8", command=click_8, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "8".

4.1.2.19 key_9

```
key_9 = tk.Button(window, text="9", command=click_9, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a "9".

4.1.2.20 key_add

```
key_add = tk.Button(window, text="+", command =click_add, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating addition.

4.1.2.21 key_clear

```
key_clear = tk.Button(window, text="CLEAR", command =click_clear, bg=default_set[0], fg=default_set[1]) \
```

Button for clearing all user input.

4.1.2.22 key_decimal

```
key_decimal = tk.Button(window, text=".", command=click_decimal, bg=default_set[0], fg=default_set[1]) \
```

Button for inputting a decimal separator.

4.1.2.23 key_delete

```
key_delete = tk.Button(window, text="DELETE", command =click_delete, bg=default_set[0], fg=default_set[1]) \
```

Button for deleting the last character.

4.1.2.24 key_div

```
key_div = tk.Button(window, text="/", command = click_div, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating division.

4.1.2.25 key_equals

```
key_equals = tk.Button(window, text="=", command=equals, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating and showing result.

4.1.2.26 key_fac

```
key_fac = tk.Button(window, text="!", command = click_fac, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating factorial.

4.1.2.27 key_mod

```
key_mod = tk.Button(window, text="%", command = click_mod, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating modulo.

4.1.2.28 key_mul

```
key_mul = tk.Button(window, text="*", command = click_mul, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating multiplication.

4.1.2.29 key_pow

```
key_pow = tk.Button(window, text="^", command = click_pow, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating n-th power.

4.1.2.30 key_roo

```
key_roo = tk.Button(window, text="√", command = click_roo, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating n-th root.

4.1.2.31 key_sub

```
key_sub = tk.Button(window, text="-", command = click_sub, bg=default_set[0], fg=default_set[1]) \
```

Button for calculating subtraction.

4.1.2.32 l_res

```
string l_res = ""
```

Result of last operation.

4.1.2.33 operation_c

```
operation_c = False
```

Boolean for catching double operation.

4.1.2.34 operators

```
list operators = ["+", "*", "/", "%", "^", "!", "√", "-"]
```

List of valid operators.

4.1.2.35 solution

```
string solution = current_val
```

Result of current equation.

4.1.2.36 window

```
window = tk.Tk()
```

Main window of the graphical interface.

4.2 math_lib Namespace Reference

Functions

- def `add` (first_value, second_value)
Adds 2 numbers.
- def `div` (first_value, second_value)
Divides first number by the second.
- def `exp` (first_value, second_value)
Exponentiates first number to the second number.
- def `fact` (first_value)
Calculates the factorial of the number.
- def `mod` (first_value, second_value)
Calculates remainder (modulo) after the first number divided by the second number.
- def `mul` (first_value, second_value)
Multiplies 2 numbers.
- def `root` (first_value, second_value)
Calculates n-th root of the first number.
- def `sub` (first_value, second_value)
Subtracts 2 numbers.

4.2.1 Function Documentation

4.2.1.1 add()

```
def math_lib.add (  
    first_value,  
    second_value )
```

Adds 2 numbers.

Parameters

<i>first_value</i>	The first summand.
<i>second_value</i>	The second summand.

Returns

Sum of summands represented by float number rounded by 10 decimal places.

4.2.1.2 div()

```
def math_lib.div (
    first_value,
    second_value )
```

Divides first number by the second.

Will raise an exception in case of dividing by zero.

Parameters

<i>first_value</i>	Divident.
<i>second_value</i>	Divisor.

Returns

Quotient represented by float number rounded by 10 decimal places.

4.2.1.3 exp()

```
def math_lib.exp (
    first_value,
    second_value )
```

Exponentiates first number to the second number.

Parameters

<i>first_value</i>	Base.
<i>second_value</i>	Exponent.

Returns

Power represented by float number rounded by 10 decimal places.

4.2.1.4 fact()

```
def math_lib.fact (
    first_value )
```

Calculates the factorial of the number.

Parameters

<i>first_value</i>	Radicant.
<i>second_value</i>	Degree.

Returns

Product represented by an integer number.

4.2.1.5 mod()

```
def math_lib.mod (
    first_value,
    second_value )
```

Calculates remainder (modulo) after the first number divided by the second number.

Parameters

<i>first_value</i>	Divident.
<i>second_value</i>	Divisor.

Returns

Remainder represented by float number rounded by 10 decimal places.

4.2.1.6 mul()

```
def math_lib.mul (
    first_value,
    second_value )
```

Multiplies 2 numbers.

Parameters

<i>first_value</i>	The first factor.
<i>second_value</i>	The second factor.

Returns

Product of factors represented by float number rounded by 10 decimal places.

4.2.1.7 root()

```
def math_lib.root (
    first_value,
    second_value )
```

Calculates n-th root of the first number.

Degree is determined by the second number.

Parameters

<i>first_value</i>	Radicant.
<i>second_value</i>	Degree.

Returns

Root represented by float number rounded by 10 decimal places.

4.2.1.8 sub()

```
def math_lib.sub (
    first_value,
    second_value )
```

Subtracts 2 numbers.

Parameters

<i>first_value</i>	Minuend.
<i>second_value</i>	Subtrahend.

Returns

Difference between minuend and subtrahend represented by float number rounded by 10 decimal places.

4.3 stddev Namespace Reference

Functions

- def [calc_arithm_mean](#) (data)
- def [calc_std_dev](#) (arithm_mean, data)
- def [main](#) ()

4.3.1 Function Documentation

4.3.1.1 calc_arithm_mean()

```
def stddev.calc_arithm_mean (  
    data )
```

4.3.1.2 calc_std_dev()

```
def stddev.calc_std_dev (  
    arithm_mean,  
    data )
```

4.3.1.3 main()

```
def stddev.main ( )
```


Chapter 5

File Documentation

5.1 calc.py File Reference

Calculator source code developed in Python.

Namespaces

- namespace [calc](#)

Functions

- def [click_0](#) ()
Inputs a "0".
- def [click_1](#) ()
Inputs a "1".
- def [click_2](#) ()
Inputs a "2".
- def [click_3](#) ()
Inputs a "3".
- def [click_4](#) ()
Inputs a "4".
- def [click_5](#) ()
Inputs a "5".
- def [click_6](#) ()
Inputs a "6".
- def [click_7](#) ()
Inputs a "7".
- def [click_8](#) ()
Inputs a "8".
- def [click_9](#) ()
Inputs a "9".
- def [click_add](#) ()
Inputs a "+", to calculate addition.
- def [click_clear](#) ()

- Resets the calculator.*
 - def `click_decimal` ()
- Inputs a decimal separator.*
 - def `click_delete` ()
- Deletes the last character from user input.*
 - def `click_div` ()
- Inputs a "/", to calculate division.*
 - def `click_fac` ()
- Inputs a "!", to calculate factorial.*
 - def `click_mod` ()
- Inputs a "%", to calculate modulo.*
 - def `click_mul` ()
- Inputs a "*", to calculate multiplication.*
 - def `click_pow` ()
- Inputs a "^", to calculate n-th power.*
 - def `click_roo` ()
- Inputs a root sign, to calculate root.*
 - def `click_sub` ()
- Inputs a "-", to calculate subtraction.*
 - def `double_input` ()
- Checks for double input.*
 - def `equals` ()
- Calculates the result of the input equation, and prints it out in the GUI.*
 - def `function_executioner` (user_input)
- Executes currently entered operation.*
 - def `input_formatting` (user_input)
- Formats user input into a form suitable for the program.*
 - def `last_op` (user_input)
- Returns true if the last character of the input is an operator.*
 - def `show_cache` ()
- Deletes the current input and replaces it with last result.*

Variables

- `background`
- Color of background in GUI.*
- int `char_limit` = 30
- Number of maximum characters in input/output.*
- string `current_val` = ""
- Current equation in cache.*
- `d_num` = tk.StringVar(window)
- Current output shown to user in GUI.*
- list `default_set` = ["#a5c663", "#354f00", "#7b9f35", "#d4ee9f"]
- List of color schemes.*
- `display` = tk.Label(window, textvariable=d_num, font= 30)
- Text label of current output.*
- `head_menu` = tk.Menu(window)
- Main menu.*
- `help_menu` = tk.Menu(head_menu, tearoff=0)
- Sub-menu with help options.*

- `key_0` = `tk.Button(window,text="0",command=click_0,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "0".
- `key_1` = `tk.Button(window,text="1",command=click_1,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "1".
- `key_1_cache` = `tk.Button(window,text="CACHE",command=show_cache, bg=default_set[0],fg=default_set[1])\n`
Button for showing last result.
- `key_2` = `tk.Button(window,text="2",command=click_2,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "2".
- `key_3` = `tk.Button(window,text="3",command=click_3,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "3".
- `key_4` = `tk.Button(window,text="4",command=click_4,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "4".
- `key_5` = `tk.Button(window,text="5",command=click_5,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "5".
- `key_6` = `tk.Button(window,text="6",command=click_6,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "6".
- `key_7` = `tk.Button(window,text="7",command=click_7,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "7".
- `key_8` = `tk.Button(window,text="8",command=click_8,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "8".
- `key_9` = `tk.Button(window,text="9",command=click_9,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a "9".
- `key_add` = `tk.Button(window,text="+",command =click_add,bg=default_set[0],fg=default_set[1])\n`
Button for calculating addition.
- `key_clear` = `tk.Button(window,text="CLEAR",command =click_clear,bg=default_set[0],fg=default_set[1])\n`
Button for clearing all user input.
- `key_decimal` = `tk.Button(window,text=".",command=click_decimal,bg=default_set[0],fg=default_set[1])\n`
Button for inputting a decimal separator.
- `key_delete` = `tk.Button(window,text="DELETE",command =click_delete,bg=default_set[0],fg=default_set[1])\n`
Button for deleting the last character.
- `key_div` = `tk.Button(window,text="/",command =click_div,bg=default_set[0],fg=default_set[1])\n`
Button for calculating division.
- `key_equals` = `tk.Button(window,text="=",command=equals,bg=default_set[0],fg=default_set[1])\n`
Button for calculating and showing result.
- `key_fac` = `tk.Button(window,text="!",command =click_fac,bg=default_set[0],fg=default_set[1])\n`
Button for calculating factorial.
- `key_mod` = `tk.Button(window,text="%",command =click_mod,bg=default_set[0],fg=default_set[1])\n`
Button for calculating modulo.
- `key_mul` = `tk.Button(window,text="*",command =click_mul,bg=default_set[0],fg=default_set[1])\n`
Button for calculating multiplication.
- `key_pow` = `tk.Button(window,text="^",command =click_pow,bg=default_set[0],fg=default_set[1])\n`
Button for calculating n-th power.
- `key_roo` = `tk.Button(window,text="√",command =click_roo,bg=default_set[0],fg=default_set[1])\n`
Button for calculating n-th root.
- `key_sub` = `tk.Button(window,text="-",command =click_sub,bg=default_set[0],fg=default_set[1])\n`
Button for calculating subtraction.
- `string l_res` = ""
Result of last operation.
- `bool operation_c` = False
Boolean for catching double operation.

- list `operators` = `["+", "*", "/", "%", "^", "!", "√", "-"]`
List of valid operators.
- string `solution` = `current_val`
Result of current equation.
- `window` = `tk.Tk()`
Main window of the graphical interface.

5.1.1 Detailed Description

Calculator source code developed in Python.

5.1.2 Description

Calculator software with a tkinter GUI, developed in Python.

5.2 `math_lib.py` File Reference

Library for basic mathematical functions.

Namespaces

- namespace `math_lib`

Functions

- def `add` (first_value, second_value)
Adds 2 numbers.
- def `div` (first_value, second_value)
Divides first number by the second.
- def `exp` (first_value, second_value)
Exponentiates first number to the second number.
- def `fact` (first_value)
Calculates the factorial of the number.
- def `mod` (first_value, second_value)
Calculates remainder (modulo) after the first number divided by the second number.
- def `mul` (first_value, second_value)
Multiplies 2 numbers.
- def `root` (first_value, second_value)
Calculates n-th root of the first number.
- def `sub` (first_value, second_value)
Subtracts 2 numbers.

5.2.1 Detailed Description

Library for basic mathematical functions.

Library for mathematical functions that includes multiplication, addition, subtraction, division, modulo, exponentiation, n-th root and factorial.

5.3 stddev.py File Reference

Namespaces

- namespace [stddev](#)

Functions

- def [calc_arithm_mean](#) (data)
- def [calc_std_dev](#) (arithm_mean, data)
- def [main](#) ()

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