ASSIGNMENT 6.3

on

Documentation and Security

Submitted by:

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and

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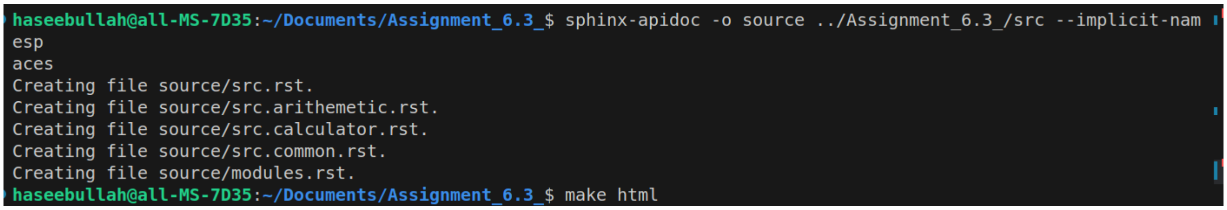
Dated: 25th May 2023

Task:

1. Provide a template Sphinx command line command which auto documents your project. Explain what each flag and each element of your command do.



```
haseebullah@all-MS-7D35:~/Documents/Assignment_6.3_$ sphinx-apidoc -o source ../Assignment_6.3_/src --implicit-nam
esp
aces
Creating file source/src.rst.
Creating file source/src.arithemetic.rst.
Creating file source/src.calculator.rst.
Creating file source/src.common.rst.
Creating file source/modules.rst.
haseebullah@all-MS-7D35:~/Documents/Assignment_6.3_$ make html
```

The above command uses sphinx-apidoc, that is a tool provided by sphinx to auto doc the python code files.

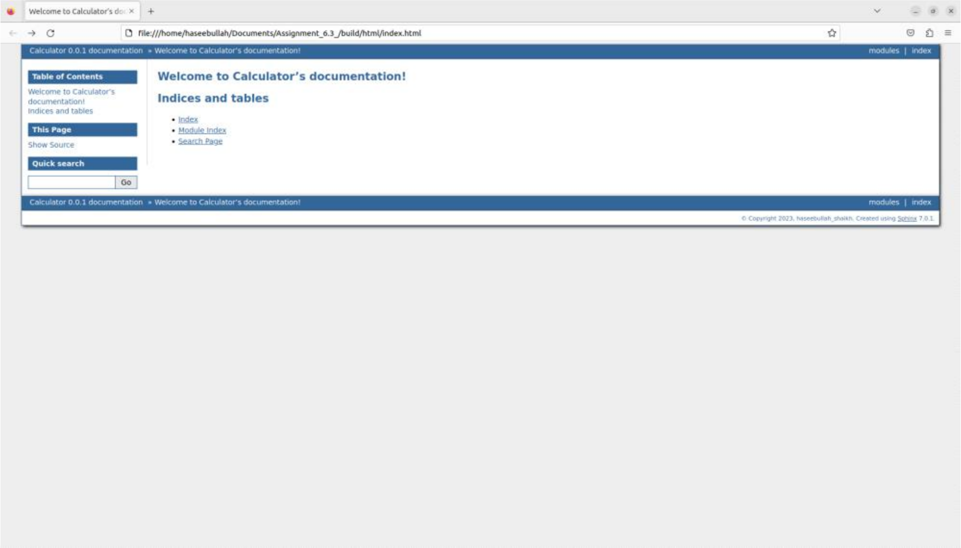
Elements and flags commands:

1. **Sphinx-apidoc :** It is a tool which is provided by sphinx which auto docs your project code files,
2. -**o** source: It will store the generated sources and output files in directory named source, it will create by itself if it doesn't exist.
3. Module path - ../Assignment_6.3/src : It is the path of project which is to be auto documented.
4. **Flag:** --implicit-namespaces **:** This flag allows sphini-apidoc to automatically access the directories within the specified module and generate the docs for the code files within the directories , like we have directories in our task calculator, arithmetic, and common.

2. What flag should you add if you use implicit namespaces in your project?

We should use –implicit-namespaces with above command because by default modules are only auto documented by sphinix, it allows sphinix-apidoc to auto document given project in the path by understanding path structure and documents files within the directories and their functions.

HTML documentation Output



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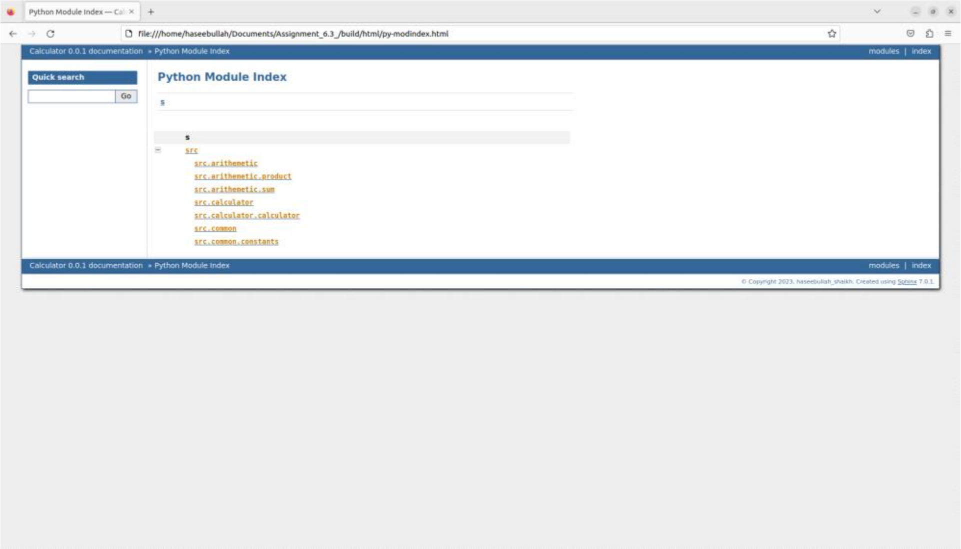

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s

```
s
src
  src.arithemetic
  src.arithemetic.product
  src.arithemetic.sum
  src.calculator
  src.calculator.calculator
  src.common
  src.common.constants
```

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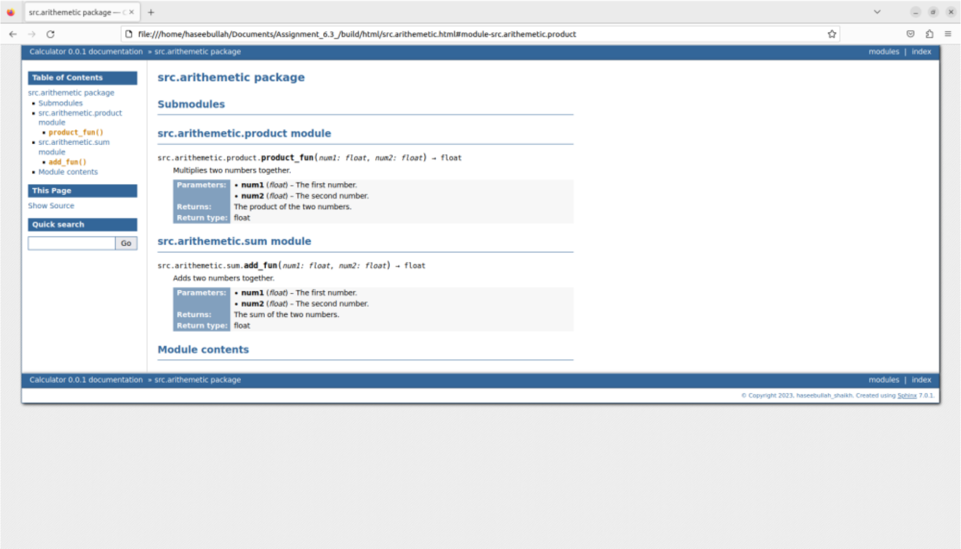

file:///home/haseebullah/Documents/Assignment_6.3_/build/html/src.arithemetic.html#module-src.arithemetic.product

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src.arithemetic package

Submodules

src.arithemetic.product module

`src.arithemetic.product.`**`product_fun`**`(`*`num1: float, num2: float`*`) → float`

Multiplies two numbers together.

Parameters:
- **num1** (*float*) – The first number.
- **num2** (*float*) – The second number.

Returns: The product of the two numbers.

Return type: float

src.arithemetic.sum module

`src.arithemetic.sum.`**`add_fun`**`(`*`num1: float, num2: float`*`) → float`

Adds two numbers together.

Parameters:
- **num1** (*float*) – The first number.
- **num2** (*float*) – The second number.

Returns: The sum of the two numbers.

Return type: float

Module contents

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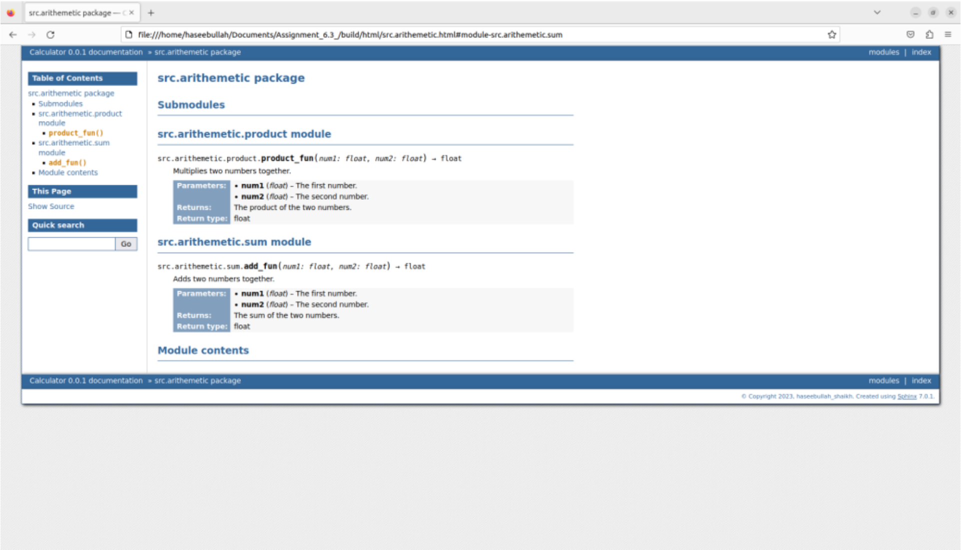

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src.arithemetic package

Submodules

src.arithemetic.product module

`src.arithemetic.product.`**`product_fun`**`(`*`num1: float, num2: float`*`) → float`

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src.arithemetic.sum module

`src.arithemetic.sum.`**`add_fun`**`(`*`num1: float, num2: float`*`) → float`

Adds two numbers together.

Parameters:
- **num1** (*float*) – The first number.
- **num2** (*float*) – The second number.

Returns: The sum of the two numbers.

Return type: float

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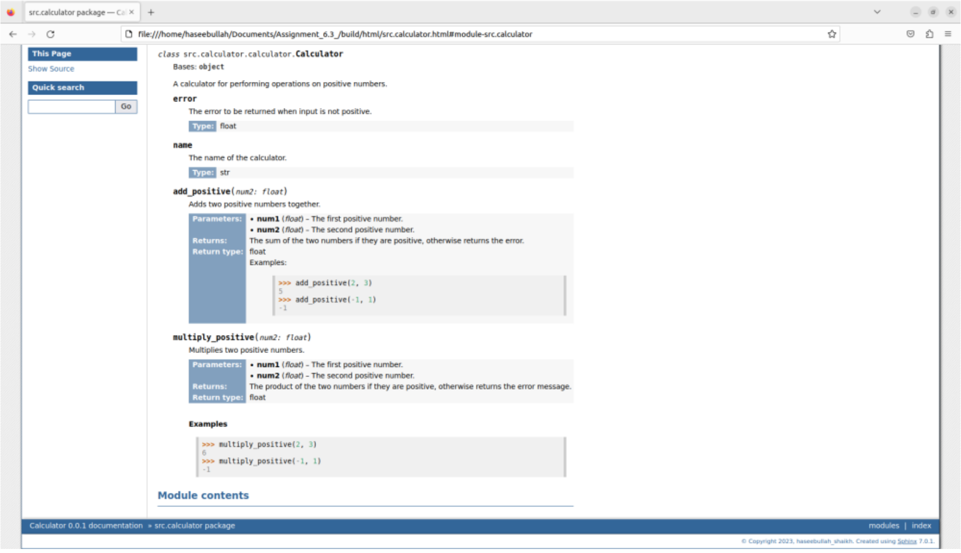

file:///home/haseebullah/Documents/Assignment_6.3_/build/html/src.calculator.html#module-src.calculator

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class `src.calculator.calculator.`**`Calculator`**

Bases: `object`

A calculator for performing operations on positive numbers.

`error`

The error to be returned when input is not positive.

Type: float

`name`

The name of the calculator.

Type: str

`add_positive``(`*`num2: float`*`)`

Adds two positive numbers together.

Parameters:
- **num1** (*float*) – The first positive number.
- **num2** (*float*) – The second positive number.

Returns: The sum of the two numbers if they are positive, otherwise returns the error.

Return type: float

Examples:

```
>>> add_positive(2, 3)
5
>>> add_positive(-1, 1)
-1
```

`multiply_positive``(`*`num2: float`*`)`

Multiplies two positive numbers.

Parameters:
- **num1** (*float*) – The first positive number.
- **num2** (*float*) – The second positive number.

Returns: The product of the two numbers if they are positive, otherwise returns the error message.

Return type: float

Examples

```
>>> multiply_positive(2, 3)
6
>>> multiply_positive(-1, 1)
-1
```

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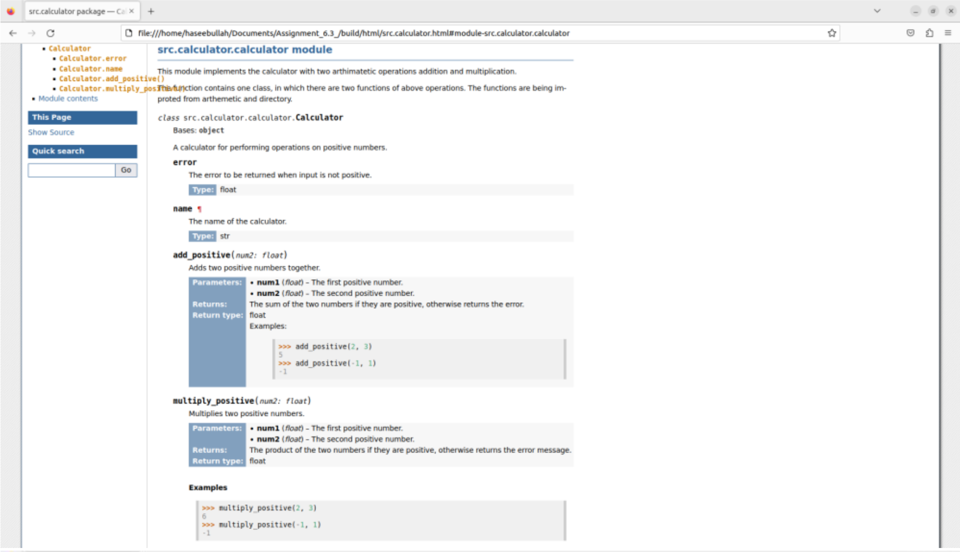

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- `Calculator`
  - `Calculator.error`
  - `Calculator.name`
  - `Calculator.add_positive()`
  - `Calculator.multiply_positive()`
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src.calculator.calculator module

This module implements the calculator with two arthimatetic operations addition and multiplication.

The function contains one class, in which there are two functions of above operations. The functions are being improted from arthemetic and directory.

class `src.calculator.calculator.`**`Calculator`**

Bases: `object`

A calculator for performing operations on positive numbers.

`error`

The error to be returned when input is not positive.

Type: float

`name` ¶

The name of the calculator.

Type: str

`add_positive`(*num2: float*)

Adds two positive numbers together.

Parameters:
- **num1** (*float*) – The first positive number.
- **num2** (*float*) – The second positive number.

Returns: The sum of the two numbers if they are positive, otherwise returns the error.

Return type: float

Examples:

```
>>> add_positive(2, 3)
5
>>> add_positive(-1, 1)
-1
```

`multiply_positive`(*num2: float*)

Multiplies two positive numbers.

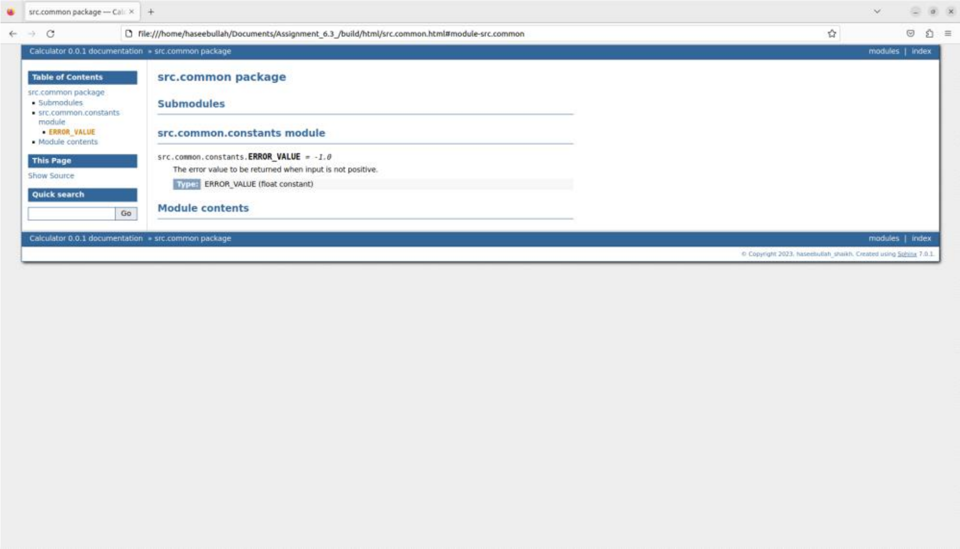
Parameters:
- **num1** (*float*) – The first positive number.
- **num2** (*float*) – The second positive number.

Returns: The product of the two numbers if they are positive, otherwise returns the error message.

Return type: float

Examples

```
>>> multiply_positive(2, 3)
6
>>> multiply_positive(-1, 1)
-1
```



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src.common.constants module

`src.common.constants.`**`ERROR_VALUE`** *= -1.0*

The error value to be returned when input is not positive.

Type: ERROR_VALUE (float constant)

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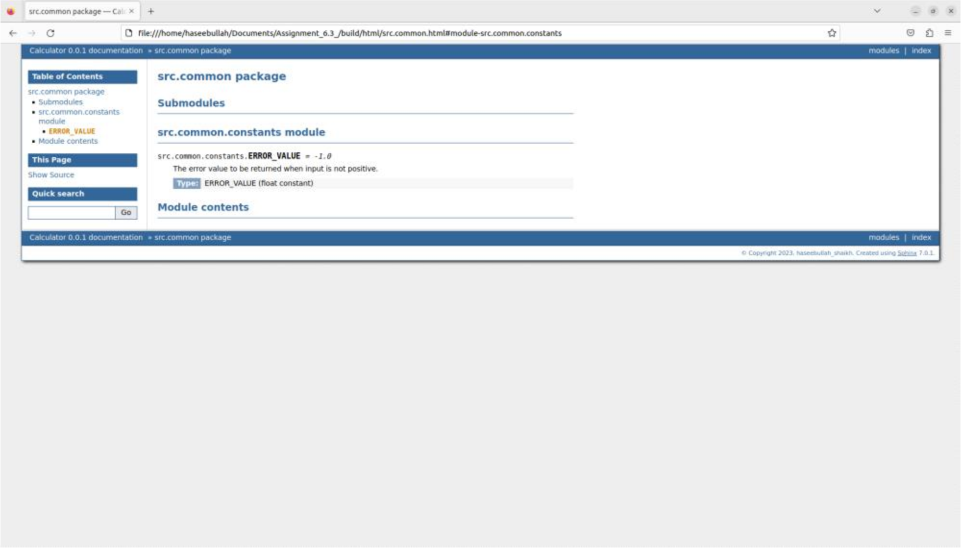
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src.common package

Submodules

src.common.constants module

```
src.common.constants.ERROR_VALUE = -1.0
```

The error value to be returned when input is not positive.

Type: ERROR_VALUE (float constant)

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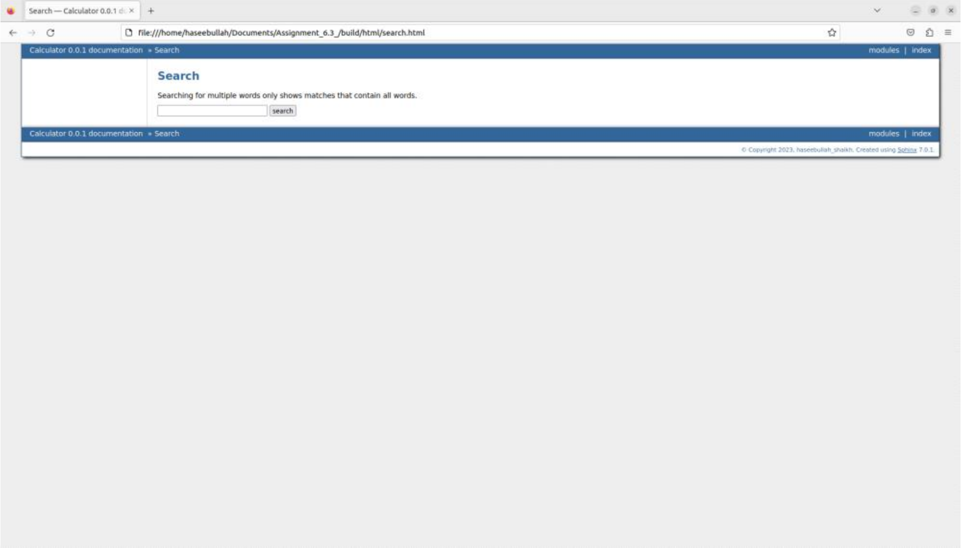
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