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# example-sphinx Documentation

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Contents: Example of a module with a class and a function autodocumented by sphinx and readthedocs.

**class** myexpackage.classmodule.**myclass** (*val*)  
Class holding a single member variable x.

**Parameters** **val** : float, mandatory  
initial value of the instance variable x

## Attributes

var	(float storing member value x)
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## Methods

**setvar** (*x*)  
set the value of the member variable var

**Parameters** **x** : float, mandatory  
value to which var will be set

**Returns** None

**square** ()  
Squares the value of the class attribute var

**Parameters** None

**Returns** None

myexpackage.classmodule.**myfunc** (*x*)  
returns the square of the argument x.

**Parameters** **x** : float, mandatory  
value that you want to square

**Returns** xsquared: float, desired square of x

## Examples

```
>>> myfunc(2.0)
4.0
```

Added to check the building of documentation with two modules

myexpackage.funcmodule.**newfunc** (*x*)  
returns the argument

**Parameters** **x** : float, mandatory  
single argument x of the function

**Returns** **xvalue** : float, returns the argument f the function

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**Note:** Yes, this is a stupid function.

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## Examples

```
>>> x = newfunc(2.)
>>> x * x
4.0
>>> newfunc(3.)
3.0
```

`myexpackage.funcmodule.readmatrix(fname, exampledata=True)`  
reads the matrix in an ASCII file to a `np.ndarray`

**Parameters fname: mandatory, string**

filename for ASCII file containing the data

**exampledata: bool, optional defaults to True**

if true, implies that the file is in the exampledata directory

**Returns matrix : np.ndarray**

## Examples

```
>>> import numpy as np
>>> d = readmatrix('smallmatrix.dat')
>>> max( abs( d[0] - np.array([3., 2., 1.])) ) < 1.0e-4
True
```

## Indices and tables

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