Functions

Defining Functions

In this chapter we cover how to define custom functions.

Functions are defined using the keyword `def`.

The basic syntax for creating a function is:

```
def function_name(arguments):
    Code block
    return return_value
```

where - everything indented after the `:` is part of the function body - `arguments` can be multiple arguments with names to refer to in the function body - the `return` statement exits the function and returns the `return_value`

The function above can be called in the usual way: `function_name(argument_values)`

Worked Example

As a first example, let's create a function that takes a single argument and doubles it's value

```
[4]: def double(value):
         return 2*value
```

Again, we can call this argument by name and enter a value or variable as an argument:

```
[5]: double(1)
```

```
[5]: 2
```

```
[6]: double(5.5)
```

```
[6]: 11.0
```

```
[7]: double('a')
```

```
[7]: 'aa'
```