Chapter 1

Automatic execution of code blocks

Compile this document with

```
doconce format execute.do.txt --execute
```

Hidden execution cells can be used to perform operations that need to be done before the following cells are executed:

This is a cell that should execute automatically:

```
b = 2
c = a + b
print("The result is {}".format(c))
c
```
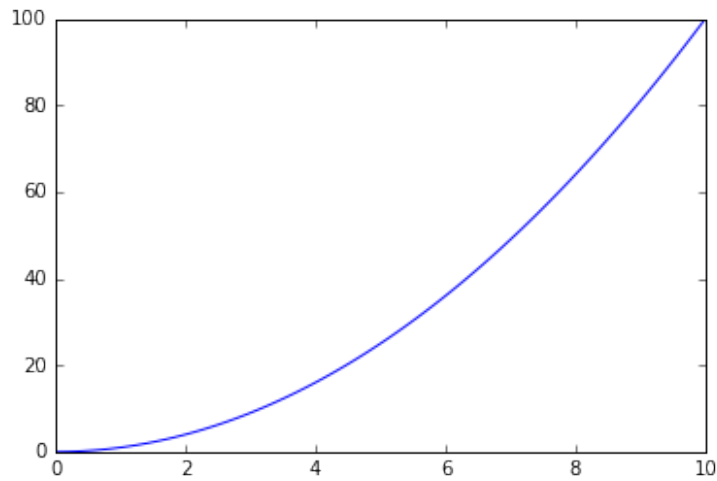
```
The result is 3
```

```
3
```

1.1 Plotting

This is a cell that should plot and output:

```
from pylab import *
x = linspace(0, 10, 100)
plot(x, x*x)
show()
```

To improve quality when exporting to LaTeX, the following code has automatically been run to enable PDF export in notebooks.

```
from IPython.display import set_matplotlib_formats
set_matplotlib_formats('png', 'pdf')
```

1.2   Ignore output

Predefined output can be omitted by passing `--ignore_output` to DocOnce. This will remove all environments ending with `out`.

```
a = 2
print(a)
```

```
2
```

```
2
```

1.3   Not executed

This is a code block that should not be executed:

```
while True:
    i = 2
```

This is some *formatted* stuff, which is **underlined** and stuff and maybe even contains $a + 2b$.

1.4   Code with errors

If code contains errors, it will still be run and the exception shown as part of
the output:

```python
for a in range(10)
    print(a)
```

```
  File "<ipython-input-6-9959af584c9a>", line 1
    for a in range(10)
                     ^
SyntaxError: invalid syntax
```

1.5   Opening files

The working directory is the same as the .do.txt file. You may want to use
`os.chdir` to change the directory.

```python
with open("../LICENSE") as f:
    print(f.read())
```

```
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```

```
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Remarks:

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```