lec1_step4

April 12, 2020

```
In [ ]: ## Python basics for novice data scientists, supported by Wagatsuma Lab@Kyutech
        #
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        # THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED,
        #
        # # @Time    : 2020-4-20
        # # @Author  : Hiroaki Wagatsuma
        # # @Site    : https://github.com/hirowgit/2A_python_basic_course
        # # @IDE     : Python 3.7.7 (default, Mar 10 2020, 15:43:27) [Clang 10.0.0 (clang-1000
        # # @File    : lec1_step4.py
```

```
In [2]: # Different types of loading methods
        import math

        pi=math.pi

        print(pi)
```

3.141592653589793

```
In [7]: # module loading with an abbreviation i.e. short name
        import math as mm

        pi=mm.pi

        print(pi)
```

3.141592653589793

```
In [9]: # How to use various functions in the module
        import math

        pi=math.pi
```

```python
        x1=math.sin(pi/2)

        print(pi)
        print(x1)
```

```
3.141592653589793
1.0
```

```python
In [13]: # Different types of loading methods
         import math

         pi=math.pi
         x1=math.sin(pi/2)
         x2=math.cos(0)
         x3=math.tan(pi/4)

         print(pi)
         print(x1)
         print(x2)
         print(x3)
```

```
3.141592653589793
1.0
1.0
0.9999999999999999
```

```python
In [14]: # Different types of loading methods
         from math import pi
         from math import sin
         from math import cos
         from math import tan

         #pi=math.pi
         x1=sin(pi/2)
         x2=cos(0)
         x3=tan(pi/4)

         print(pi)
         print(x1)
         print(x2)
         print(x3)
```

```
3.141592653589793
1.0
1.0
0.9999999999999999
```

```
In [15]: # Different types of loading methods
         from math import *

         #pi=math.pi
         x1=sin(pi/2)
         x2=cos(0)
         x3=tan(pi/4)

         print(pi)
         print(x1)
         print(x2)
         print(x3)

3.141592653589793
1.0
1.0
0.9999999999999999
```

```
In [10]: import math
         import numpy as np

         pi=math.pi
         x1=math.sin(pi/4)
         x2=np.sin(pi/4)
         x3=np.sin([0,pi/4,pi/2,3*pi/4])

         print(x1)
         print(x2)
         print(x3)

0.7071067811865475
0.7071067811865475
[0.         0.70710678 1.         0.70710678]
```

```
In [ ]:
```