# day 3 | 250903

```
In [2]:  import numpy as np
         import pandas as pd
```

## strings

```
In [3]:  x = 'JD did his homework.'
```

```
In [4]:  x
```

```
Out[4]:  'JD did his homework.'
```

```
In [19]:  x[-4:-1]
```

```
Out[19]:  'ork'
```

## lists

```
In [20]:  y = [4, 5, 6.0, 'dog', 5+1j]
```

```
In [21]:  y
```

```
Out[21]:  [4, 5, 6.0, 'dog', (5+1j)]
```

```
In [28]:  y[2]
```

```
Out[28]:  6.0
```

```
In [27]:  y[2:3]
```

```
Out[27]:  [6.0]
```

```
In [29]:  y
```

```
Out[29]:  [4, 5, 6.0, 'dog', (5+1j)]
```

```
In [30]:  y.pop(3)
```

```
Out[30]:  'dog'
```

```
In [31]:  y
```

```
Out[31]:  [4, 5, 6.0, (5+1j)]
```

```
In [32]:  z = [3.4, 5, 12.1, 15]
```

```
In [33]: a = y + z
```

```
In [34]: a
```

```
Out[34]: [4, 5, 6.0, (5+1j), 3.4, 5, 12.1, 15]
```

```
In [35]: b = y*z
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[35], line 1
----> 1 b = y*z

TypeError: can't multiply sequence by non-int of type 'list'
```

```
In [36]: a - 1
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[36], line 1
----> 1 a - 1

TypeError: unsupported operand type(s) for -: 'list' and 'int'
```

```
In [37]: c = np.array([1, 2, 5.0, 6.33333, 12])
```

```
In [38]: c
```

```
Out[38]: array([ 1.     ,  2.     ,  5.     ,  6.33333, 12.     ])
```

```
In [42]: c.dtype
```

```
Out[42]: dtype('float64')
```

```
In [43]: c[0]
```

```
Out[43]: 1.0
```

```
In [45]: c[2:4]
```

```
Out[45]: array([5.     , 6.33333])
```

```
In [46]: y+1
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[46], line 1
----> 1 y+1

TypeError: can only concatenate list (not "int") to list
```

```
In [47]: c+1
```

```
Out[47]:  array([ 2.     ,  3.     ,  6.     ,  7.33333, 13.     ])
```

```
In [ ]:
```