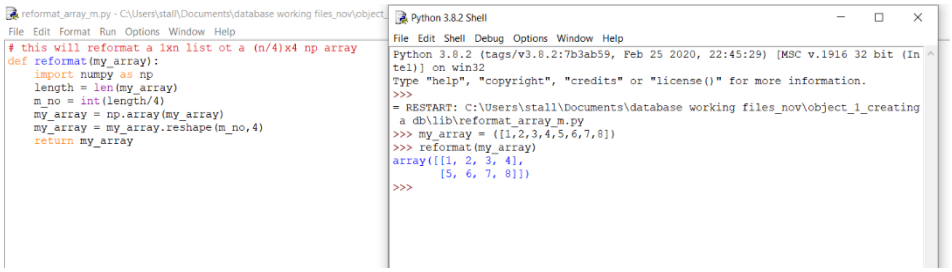
arrays and lists modules:

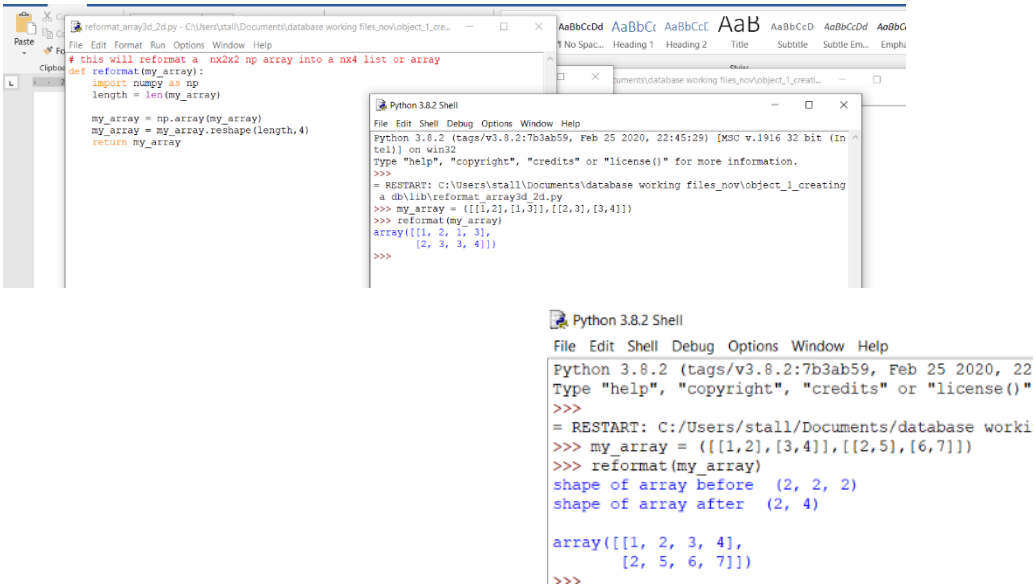
1. reformat_array_m

this will reformat a **1xn list to a (n/4)x4 np array** and uses the function *reformat(my_array)*



2. reformat_array3d_2d

this will reformat a **nx2x2 np array into a nx4 list or array** and uses the function *reformat(my_array)*



3. reformat_array

this will reformat **a 1xn list to a (n/4)x2x2 np array** and uses the function *reformat(my_array)*
Note the similarities and differences between this and reformat_array_m

reformat_array.py - C:\Users\stall\Documents\database working files_nov\object_

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```
# this will reformat a 1xn list ot a (n/4)x2x2 np array
def reformat(my_array):
    import numpy as np
    length = len(my_array)
    m_no = int(length/4)
    my_array = np.array(my_array)
    my_array = my_array.reshape(m_no,2,2)
    return my_array
```

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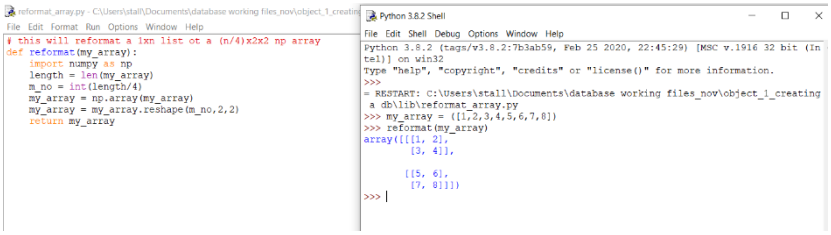
```
# this will reformat a 1xn list ot a (n/4)x4 np array
def reformat(my_array):
    import numpy as np
    length = len(my_array)
    m_no = int(length/4)
    my_array = np.array(my_array)
    my_array = my_array.reshape(m_no,4)
    return my_array
```



4. generate_data_filec_r

This function will take a list of 1x4 matrices of complex numbers and return a list of lists where each element has 8 numbers r,and im coefficients of the numbers in the 2x2 matrix, e.g. :

my_list = [[1.0, (1+1j),0, (1+2j)], [(1+1j), (1+2j), (1+1j), (1+2j)]] will produce an output which has the form [[(1.0, 0.0, 1.0, 1.0, 0.0, 0.0, 1.0, 2.0)],

[(1.0, 1.0, 1.0, 2.0, 1.0, 1.0, 1.0, 2.0)]]. It uses the function *data_gen(myarray):*