Assignment 2

1- You have an imaginary number 1+2j
Print the imaginary part in the first line & the real part in the second line

2- You have an integer variable of value 10 , transfer that variable into float and print it with 10 digits after the decimal point

3- Make a list that contains 5 names , now for the output print the first name in the list using 2 methods and print the last name in the list using also 2 methods

```python
friends = ["Osama", "Ahmed", "Sayed", "Ali", "Mahmoud"]

# Needed Output
# "Osama" => Method One
# "Osama" => Method Two
# "Mahmoud" => Method One
# "Mahmoud" => Method Two
```

4- Using the previous list print names number 2,3 and 4 in the first line , &in the second line print the last one and the one before it

```python
friends = ["Osama", "Ahmed", "Sayed", "Ali", "Mahmoud"]

# Needed Output
# "Ahmed", "Sayed", "Ali",
# "Ali", "Mahmoud"
```

5-now update the last two names in the previous list and print the list

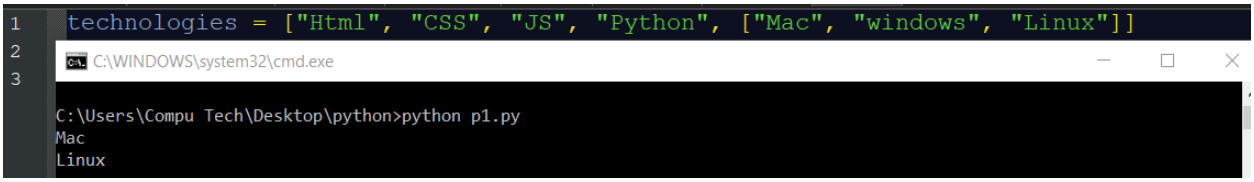
6-add another 2 lists and concatenate them to the first list & print the output

```python
friends = ["Ahmed", "Sayed"]
employees = ["Samah", "Eman"]
school = ["Ramy", "Shady"]

# Needed Output
# ["Ahmed", "Sayed", "Samah", "Eman", "Ramy", "Shady"]
```

7-print the list arranged from A to Z & in the second line print it arranged from Z to A

```python
friends = ["Ahmed", "Sayed", "Samah", "Eman", "Ramy", "Shady"

# Needed Output
# ['Ahmed', 'Eman', 'Ramy', 'Samah', 'Sayed', 'Shady']
# ['Shady', 'Sayed', 'Samah', 'Ramy', 'Eman', 'Ahmed']
```

8-make a list containing names of programming languages but the last element should be a secondary list containing names of operating systems , for the output print at the first line the first element from the secondary list & at the second line print the last element from that secondary list , keep in mind that the secondary list can increase its size



9-create a tuple containing three names , change the first element in the tuple for the output:

First line print the contents of the tuple before the change

Second line print it after the change

Third line print its type

Fourth line print numbers of elements in the tuple

10-create 2 tuples one containing (1,2,3) and the other (“a”,”b”,”c”) , concatenate them , print the output and print the number of the elements

11-create a tuple containing 4 elements of whatever type u want , destruct the tuple & assign the first element to variable a , second element to var b and fourth elements to var c and print the vars , make sure that the destruct was made by a single line

```python
my_tuple = (1, 2, 3, 4)

# Needed Output

# 1
# 2
# 4
```

12-two sets one containing numbers and the other containing letters , concatenate them using 3 different methods and print the output for each case

```python
nums = {1, 2, 3}
letters = {"A", "B", "C"}

# Needed Output

# {1, 2, 3, "A", "B", "C"}
# {1, 2, 3, "A", "B", "C"}
# {1, 2, 3, "A", "B", "C"}
```

13-create a set contains 1 ,2 ,3 print its content in the first line , now empty the set using one single line of code then print the set in the second line to make sure its empty , now add “a” and “b” to the set and print them in the third line, now try to remove char “c” from the set , of course its not in the set make sure that u wont get an error while trying to remove it

```python
my_set = {1, 2, 3}
letters = {"A", "B", "C"}

# Needed Output

# {1, 2, 3}
# set()
# {"A", "B"}
```

14- create 2 sets one contains 1 , 2,3 the other contains 1 ,2 ,3 ,4 ,5 ,6

Now print whether the second set contains all the elements of set 1 or not

```python
set_one = {1, 2, 3}
set_two = {1, 2, 3, 4, 5, 6}

# Needed Output

True
```

15-create a dictionary that contains three programming languages and your percentage level for each one of them, in every line print the language and your percentage in it

, add another language with the percentage and print it

```
C:\Users\Compu Tech\Desktop\python>python p1.py
"C Progress Is 90%"
"Java Progress Is 90%"
"PYTHON Progress Is 30%"
"C++ Progress Is 20%"
```