

EXECUTE THE PROGRAMS DISCUSSED ON DAY 2

```
pro 6.py - /Users/Bullu/Documents/pro 6.py (3.10.7)

a=2+7j
print(a)
print(type(a))

b=True
print(b)
print(type(b))
|
```

```
IDLE Shell 3.10.7

Python 3.10.7 (v3.10.7:6cc6b13308, Sep  5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.
29.30)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: /Users/Bullu/Documents/pro 6.py =====
(2+7j)
<class 'complex'>
True
<class 'bool'>
>>>
```

```
a=10
b=20
print(a/b)
print(a-b)
print(a/b)
print(a*b)
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pro 3.py =====
```

```
0.5
```

```
-10
```

```
0.5
```

```
200
```

&gt;&gt;&gt;

```
|
```

```
#while
i=0
while i<=10:
    print(i)
    i+=1
|
```

Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
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>>>

===== RESTART: /Users/Bullu/Documents/pro 1.py =====

```
0
1
2
3
4
5
6
7
8
9
10
```

>>>

```
#finding data type of a variable
a=20.5
print(a)
print(type(a))
```

Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
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>>>

===== RESTART: /Users/Bullu/Documents/pro 5.py =====

20.5

<class 'float'>

>>>

```
#if else
n= int(input("enter a num:"))
if n%2==0:
    print("even")
else:
    print("odd")
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darw
in
Type "help", "copyright", "credits" or "license()" for more information.
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pro 2.py =====
```

```
enter a num:13
```

```
odd
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pro 2.py =====
```

```
enter a num:4
```

```
even
```

&gt;&gt;&gt;

```
#collections
lst = [10,20,30,40,50]
print(lst)
print(type(lst))

#tuple
l=(10,20,30,40,50)
print(l)
print(type(l))

#set
s={100,200,300,400,500}
print(s)
print(type(s))
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on d
arwin
Type "help", "copyright", "credits" or "license()" for more information.
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pro 4.py =====
```

```
[10, 20, 30, 40, 50]
<class 'list'>
(10, 20, 30, 40, 50)
<class 'tuple'>
{400, 100, 500, 200, 300}
<class 'set'>
```

&gt;&gt;&gt;

```
#multiple variable  
a,b,c =10,3,20  
print(a)  
print(b)  
print(c)
```

```
del(b)  
print(b)
```

Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
Type "help", "copyright", "credits" or "license()" for more information.

&gt;&gt;&gt;

===== RESTART: /Users/Bullu/Documents/pro 7.py =====

10

3

20

Traceback (most recent call last):

File "/Users/Bullu/Documents/pro 7.py", line 8, in <module>

print(b)

NameError: name 'b' is not defined

&gt;&gt;&gt;



```
#variables
a=10
print(a)
print(id(a))

a=20
print(a)
print(id(a))
b=a
print(b)
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep  5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.2
9.30)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pro 8.py =====
```

```
10
4428579344
20
4428579664
20
```

&gt;&gt;&gt;

# PRACTICE PYTHON IN IDLE

```
# Program to check if a string is palindrome or not
```

```
my_str = 'aIbohPhoBiA'
```

```
# make it suitable for caseless comparison  
my_str = my_str.casefold()
```

```
# reverse the string  
rev_str = reversed(my_str)
```

```
# check if the string is equal to its reverse  
if list(my_str) == list(rev_str):  
    print("The string is a palindrome.")  
else:  
    print("The string is not a palindrome.")
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
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```

```
>>>
```

```
===== RESTART: /Users/Bullu/Documents/pp 5.py =====  
The string is a palindrome.
```

```
>>>
```

```
# Python Program to find the L.C.M. of two input number
```

```
def compute_lcm(x, y):
```

```
    # choose the greater number
```

```
    if x > y:  
        greater = x
```

```
    else:  
        greater = y
```

```
    while(True):  
        if((greater % x == 0) and (greater % y == 0)):  
            lcm = greater  
            break  
        greater += 1
```

```
    return lcm
```

```
num1 = 54  
num2 = 24
```

```
print("The L.C.M. is", compute_lcm(num1, num2))
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
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```

```
>>>
```

```
===== RESTART: /Users/Bullu/Documents/pp 3.py =====
```

```
The L.C.M. is 216
```

```
>>>
```

```
# Take a list of numbers
my_list = [12, 65, 54, 39, 102, 339, 221,]

# use anonymous function to filter
result = list(filter(lambda x: (x % 13 == 0), my_list))

# display the result
print("Numbers divisible by 13 are",result)
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pp 2.py =====
Numbers divisible by 13 are [65, 39, 221]
```

&gt;&gt;&gt;

```
# Python program to swap two variables
```

```
x = 5  
y = 10
```

```
# To take inputs from the user
```

```
#x = input('Enter value of x: ')  
#y = input('Enter value of y: ')
```

```
# create a temporary variable and swap the values
```

```
temp = x  
x = y  
y = temp
```

```
print('The value of x after swapping: {}'.format(x))  
print('The value of y after swapping: {}'.format(y))
```

```
Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin  
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```

&gt;&gt;&gt;

```
===== RESTART: /Users/Bullu/Documents/pp 1.py =====
```

```
The value of x after swapping: 10
```

```
The value of y after swapping: 5
```

&gt;&gt;&gt;

```
# Program to add two matrices using nested loop
```

```
X = [[12,7,3],  
      [4 ,5,6],  
      [7 ,8,9]]
```

```
Y = [[5,8,1],  
      [6,7,3],  
      [4,5,9]]
```

```
result = [[0,0,0],  
           [0,0,0],  
           [0,0,0]]
```

```
# iterate through rows
```

```
for i in range(len(X)):
```

```
    # iterate through columns
```

```
    for j in range(len(X[0])):
```

```
        result[i][j] = X[i][j] + Y[i][j]
```

```
for r in result:
```

```
    print(r)
```

Python 3.10.7 (v3.10.7:6cc6b13308, Sep 5 2022, 14:02:52) [Clang 13.0.0 (clang-1300.0.29.30)] on darwin

Type "help", "copyright", "credits" or "license()" for more information.

```
>>>
```

===== RESTART: /Users/Bullu/Documents/pp 4.py =====

```
[17, 15, 4]
```

```
[10, 12, 9]
```

```
[11, 13, 18]
```

```
>>>
```