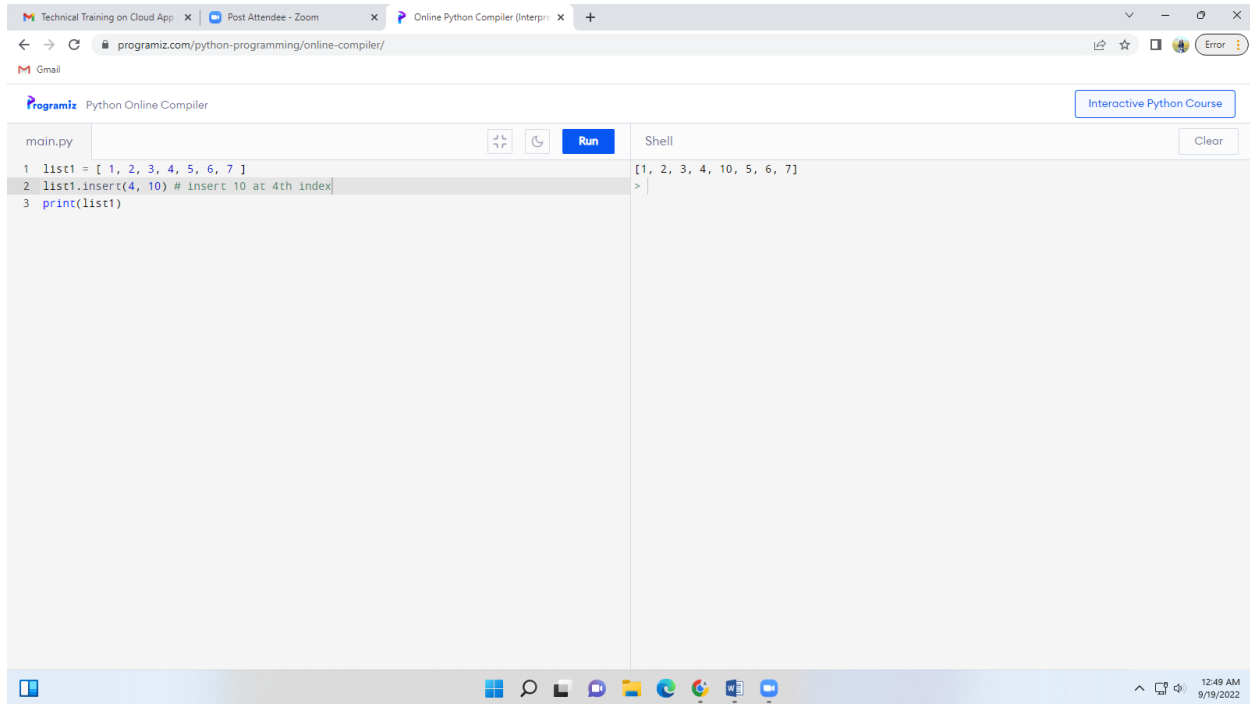


Module 3 :-

Consider the list

1.Insert integer at position



The screenshot shows the Programiz Python Online Compiler interface. The code editor on the left contains the following Python code:

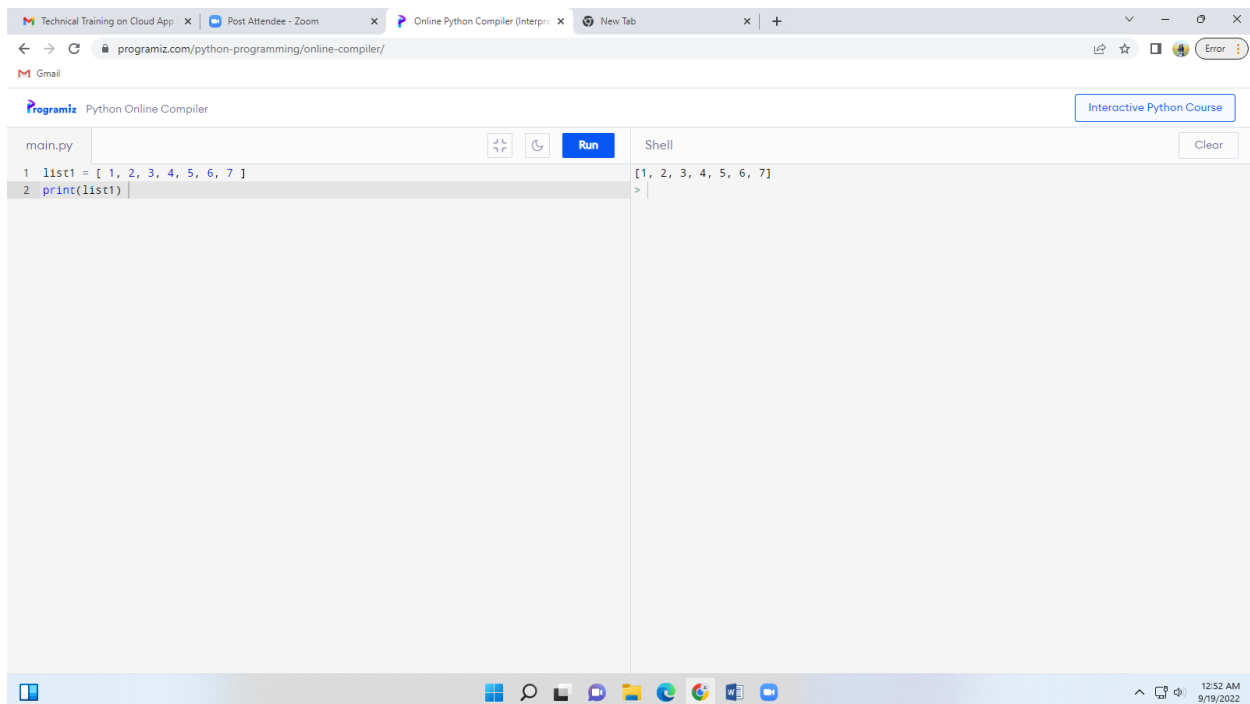
```
main.py
1 list1 = [ 1, 2, 3, 4, 5, 6, 7 ]
2 list1.insert(4, 10) # insert 10 at 4th index
3 print(list1)
```

The code is executed, and the output in the Shell on the right is:

```
[1, 2, 3, 4, 10, 5, 6, 7]
```

The browser's taskbar at the bottom shows the time as 12:49 AM on 9/19/2022.

2.Print the list



The screenshot shows the Programiz Python Online Compiler interface. The code editor on the left contains the following Python code:

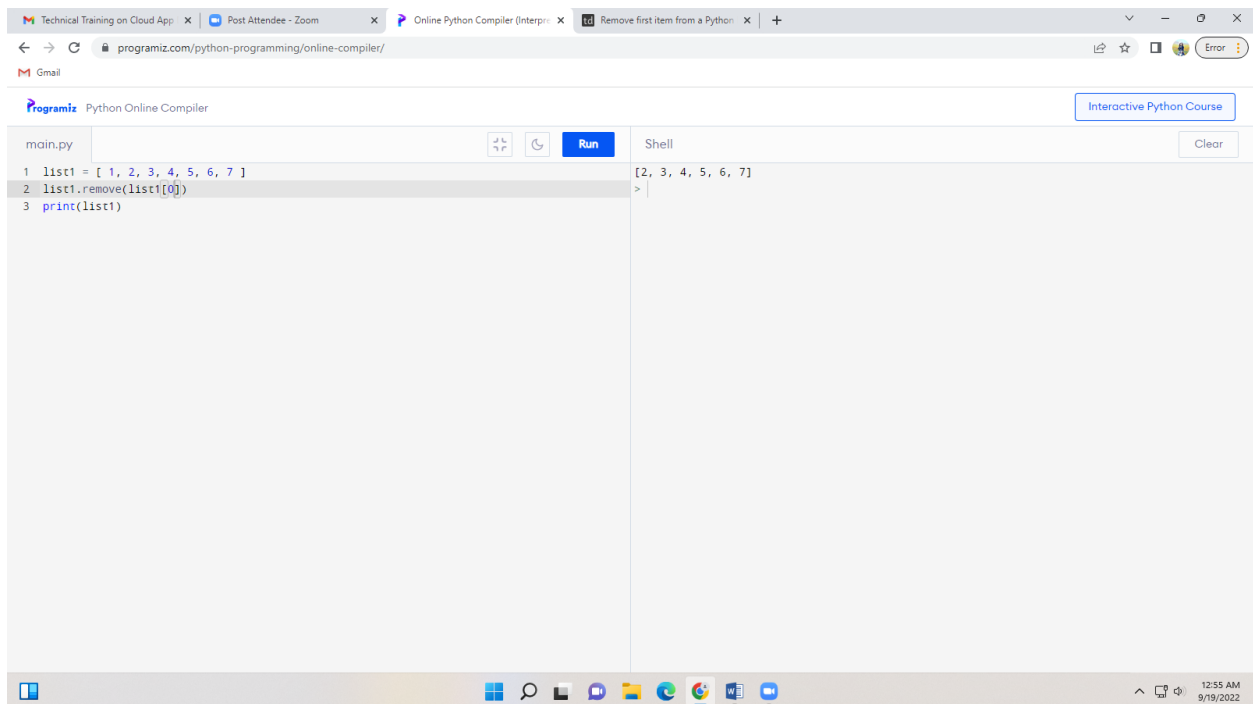
```
main.py
1 list1 = [ 1, 2, 3, 4, 5, 6, 7 ]
2 print(list1)
```

The code is executed, and the output in the Shell on the right is:

```
[1, 2, 3, 4, 5, 6, 7]
```

The browser's taskbar at the bottom shows the time as 12:52 AM on 9/19/2022.

3.Delete the first occurrence of integer



The screenshot shows the Programiz Python Online Compiler interface. The browser tabs include 'Technical Training on Cloud App', 'Post Attendee - Zoom', 'Online Python Compiler (Interpr...', and 'Remove first item from a Python...'. The address bar shows 'programiz.com/python-programming/online-compiler/'. The code editor on the left contains the following Python code:

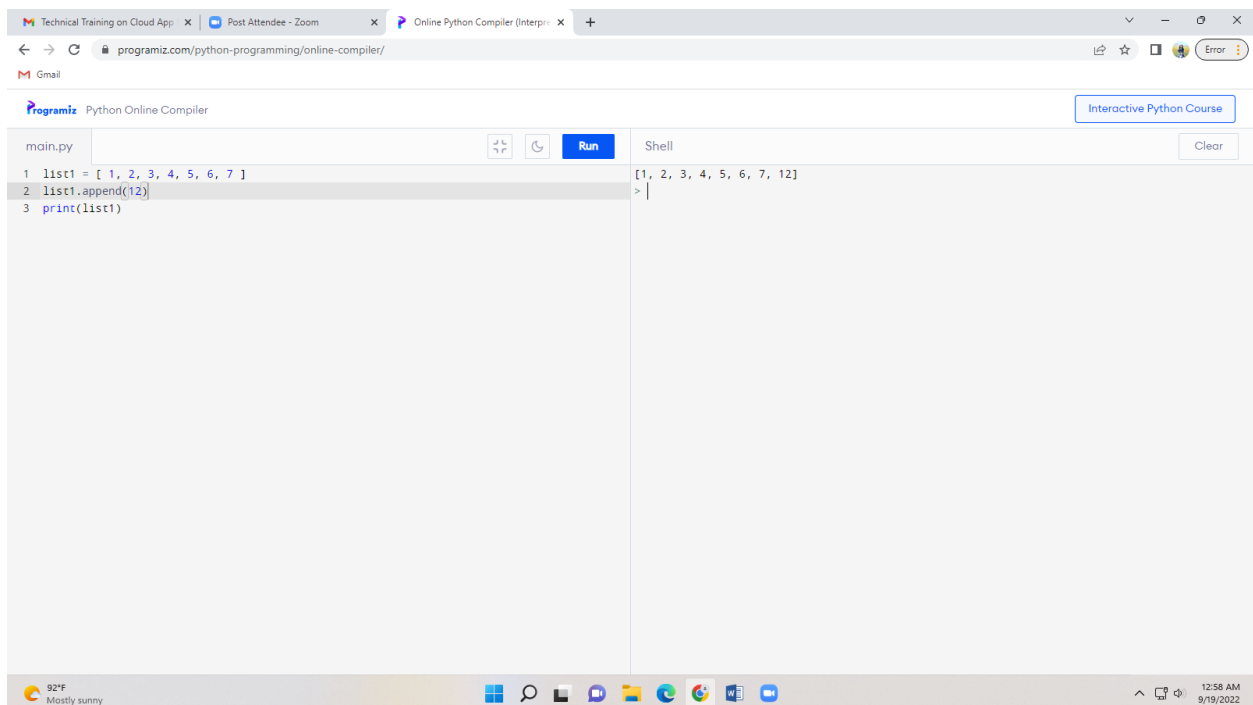
```
main.py
1 list1 = [ 1, 2, 3, 4, 5, 6, 7 ]
2 list1.remove(list1[0])
3 print(list1)
```

The 'Run' button is highlighted. The Shell output on the right shows the result of the execution:

```
[2, 3, 4, 5, 6, 7]
```

The Windows taskbar at the bottom shows the system clock as 12:55 AM on 9/19/2022.

4.Insert integer at the end of the list



The screenshot shows the Programiz Python Online Compiler interface. The browser tabs include 'Technical Training on Cloud App', 'Post Attendee - Zoom', 'Online Python Compiler (Interpr...', and '+'. The address bar shows 'programiz.com/python-programming/online-compiler/'. The code editor on the left contains the following Python code:

```
main.py
1 list1 = [ 1, 2, 3, 4, 5, 6, 7 ]
2 list1.append(12)
3 print(list1)
```

The 'Run' button is highlighted. The Shell output on the right shows the result of the execution:

```
[1, 2, 3, 4, 5, 6, 7, 12]
```

The Windows taskbar at the bottom shows the system clock as 12:58 AM on 9/19/2022.

5.Sort the list

The screenshot shows the Programiz Python Online Compiler interface. The browser tabs include 'Technical Training on Cloud App', 'Post Attendee - Zoom', and 'Online Python Compiler (Interpr...'. The address bar shows 'programiz.com/python-programming/online-compiler/'. The compiler has a file named 'main.py' and a 'Run' button. The code in the editor is:

```
1 list1 = [ 1, 2, 3, 8, 4, 5, 6, 7 ]
2 list1.sort()
3 print(list1)
```

The output in the shell is:

```
[1, 2, 3, 4, 5, 6, 7, 8]
>
```

The bottom status bar shows '92°F Mostly sunny' and the time '1:03 AM 9/19/2022'.

6.pop the last element from the list

The screenshot shows the Programiz Python Online Compiler interface. The browser tabs include 'Technical Training on Cloud App', 'Post Attendee - Zoom', and 'Online Python Compiler (Interpr...'. The address bar shows 'programiz.com/python-programming/online-compiler/'. The compiler has a file named 'main.py' and a 'Run' button. The code in the editor is:

```
1 list1 = [ 1, 2, 3, 8, 4, 5, 6, 7 ]
2 list1.pop(7)
3 print(list1)
```

The output in the shell is:

```
[1, 2, 3, 8, 4, 5, 6]
>
```

The bottom status bar shows '92°F Mostly sunny' and the time '1:07 AM 9/19/2022'.

7.Reverse the list

```
main.py
1 list1 = [ 1, 2, 3, 8, 4, 5, 6, 7 ]
2 list1.reverse()
3 print(list1)
```

```
Shell
[7, 6, 5, 4, 8, 3, 2, 1]
>
```

8. Initialize your list and read in the value of followed by lines of commands where each command will be of the types listed above. Iterate through each command in order and perform the corresponding operation on your list.

list.py - C:\Users\Ashifa\Desktop\list.py (3.10.7)

File Edit Format Run Options Window Help

```
list = [1,3,1,5,2,4,1]
#To insert
list.insert(5,6)
print("The inserted list:",list)
#To remove first occurrence
list.remove(1)
print("The first occurrence removed list:",list)
#To insert integer at the end
list.append(7)
print("The appended list:",list)
#To sort the list
list.sort()
print("The sorted list:",list)
#To pop the last element
list.pop()
print("The popped list:",list)
#To reverse
list.reverse()
print("The reversed list:",list)
```



Type here to search



28

```
IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Ashifa\Desktop\list.py =====
The inserted list: [1, 3, 1, 5, 2, 6, 4, 1]
The first occurrence removed list: [3, 1, 5, 2, 6, 4, 1]
The appended list: [3, 1, 5, 2, 6, 4, 1, 7]
The sorted list: [1, 1, 2, 3, 4, 5, 6, 7]
The popped list: [1, 1, 2, 3, 4, 5, 6]
The reversed list: [6, 5, 4, 3, 2, 1, 1]
>>>
```

9. Calculator program in python

```
Technical Training on Cloud App x Post Attendee - Zoom x Online Python Compiler (Interpr... x +
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Programiz Python Online Compiler Interactive Python Course
main.py Run Shell Clear
1 # Program make a simple calculator
2
3 # This function adds two numbers
4 def add(x, y):
5     return x + y
6
7 # This function subtracts two numbers
8 def subtract(x, y):
9     return x - y
10
11 # This function multiplies two numbers
12 def multiply(x, y):
13     return x * y
14
15 # This function divides two numbers
16 def divide(x, y):
17     return x / y
18 print("Select operation.")
19 print("1.Add")
20 print("2.Subtract")
21 print("3.Multiply")
22 print("4.Divide")
23
24 while True:
25     # take input from the user
26     choice = input("Enter choice(1/2/3/4): ")
27     # check if choice is one of the four options
28
29 1.Add
30 2.Subtract
31 3.Multiply
32 4.Divide
33 Enter choice(1/2/3/4): 4
34 Enter first number: 127
35 Enter second number: 5
36 127.0 / 5.0 = 25.4
37 Let's do next calculation? (yes/no): No
38 Enter choice(1/2/3/4): |
```

10. i)Concatenate

Technical Training on Cloud App x Post Attendee - Zoom x Online Python Compiler (Interpr... x +

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main.py

```
1 list1= [1,4,6,7,3]
2 list2= [3, 5, 7, 2, 5]
3
4 # using list.extend() to concat
5 list1.extend(list2)
6
7 # Printing concatenated list
8 print ("Concatenated list is:"+str(list1))
```

Run

Shell

Concatenated list is:[1, 4, 6, 7, 3, 3, 5, 7, 2, 5]

> |

Clear

92°F Mostly sunny 1:31 AM 9/19/2022

ii)Reverse

Technical Training on Cloud App x Post Attendee - Zoom x Online Python Compiler (Interpr... x +

programiz.com/python-programming/online-compiler/

Gmail

Programiz Python Online Compiler

Interactive Python Course

main.py

```
1 list1 = [ 1, 2, 3,8, 4, 5, 6, 7 ]
2 list1.reverse()
3 print(list1)
```

Run

Shell

[7, 6, 5, 4, 8, 3, 2, 1]

> |

Clear

92°F Mostly sunny 1:10 AM 9/19/2022

iii)Slicing

```
main.py
1 a = "Hello, World!"
2 print(a[:5])
3 print(a[5:])
4 print(a[2:5])
5 print(a[-2:-5])
6
```

Run

Shell

Hello, World!

> |

92°F Mostly sunny 1:42 AM 9/19/2022

11. Why python is a popular programming language?

- Easy to learn
- It has an active, supportive community
- It is flexible
- Offers versatile web development solutions
- It is well suited to Data Science and Analytics
- Efficient, fast and reliable
- Widely used with IoT technology

12.What are the frameworks that can be used with python?

- Flask
- Django
- Web2py
- Bottle
- CherryPy
- Dash
- Falcon

13.Full form of WSGI?

Web Server Gateway Interface(WSGI)