

While Loop:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...  
1     count = 0  
2     while (count < 3):  
3         count = count + 1  
4         print("Hello Geek")  
  
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS  
  
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/  
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"  
Hello Geek  
Hello Geek  
Hello Geek  
PS C:\Users\USER>
```

Single statement while block:

[illegible]

for in Loop:

C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...

```
1 print("List Iteration")
2 l = ["geeks", "for", "geeks"]
3 for i in l:
4     print(i)
```

PROBLEMS

OUTPUT

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TERMINAL

PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/PythonSoftwareFoundation/Python39/JupyterLab.exe C:/Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2
```

List Iteration

geeks

for

geeks

PS C:\Users\USER>

C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...

```
1 print("\nTuple Iteration")
2 t = ("geeks", "for", "geeks")
3 for i in t:
4     print(i)
```

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```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/PythonSoftwareFoundation/Python39/JupyterLab.exe C:/Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2
```

Tuple Iteration

geeks

for

geeks

PS C:\Users\USER>

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ..
1  print("\nString Iteration")
2  s = "Geek" (variable) s: Literal['Geeks']
3  for i in s:
4      print(i)
```

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```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"

String Iteration
G
e
e
k
s
PS C:\Users\USER>
```

Iterating by index of sequences:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ..
1  list = ["geeks", "for", "geeks"]
2  for index in range(len(list)):
3      print (list[index])
```

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```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"

geeks
for
geeks
PS C:\Users\USER>
```

Loop Control Statements:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...
1   for letter in 'geeksforgeeks':
2       if letter == 'e' or letter == 's':
3           continue
4       print ('Current Letter :'), letter
5       var=10
6
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"
Current Letter :
Current Letter :
Current Letter :
Current Letter :
Current Letter :
Current Letter :
Current Letter :
PS C:\Users\USER>
```

Break Statement:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...
1   for letter in 'geeksforgeeks':
2       # break the loop as soon it sees 'e'
3       # or 's'
4       if letter == 'e' or letter == 's':
5           break
6       print ('Current Letter :'), letter
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"
Current Letter :
PS C:\Users\USER>
```

Creating a Function: (Calling a Function)

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...  
1  def my_function():  
2      print("Hello from a function")  
3  
4  my_function()  
  
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  
  
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/  
Users/USER/OneDrive/Documents/AI-Lab-1/LAB 2"  
Hello from a function  
PS C:\Users\USER>
```

Parameters:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > my_function  
1  def my_function(fname):  
2      print(fname + " Refsnes")  
3  my_function("Emil")  
4  my_function("Tobias")  
5  my_function("Linus")  
  
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  
  
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/  
Emil Refsnes  
Tobias Refsnes  
Linus Refsnes  
PS C:\Users\USER>
```

Default Parameter Value:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > my_function

1  def my_function(country = "Norway"): print("I am from " + country)
2  my_function("Sweden")
3  my_function("India")
4  my_function()
5  my_function("Brazil")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.exe "
I am from Sweden
I am from India
I am from Norway
I am from Brazil
PS C:\Users\USER>
```

Passing a List as a Parameter:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > my_function

1  def my_function(food):
2      for x in food:
3          print(x)
4  fruits = ["apple", "banana", "cherry"]
5  my_function(fruits)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.exe "
apple
banana
cherry
PS C:\Users\USER>
```

Return Values:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > my_function
1  def my_function(x):
2      return 5 * x
3  print(my_function(3))
4  print(my_function(5))
5  print(my_function(9))

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.6
15
25
45
PS C:\Users\USER>
```

Keyword Arguments:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > my_function
1  def my_function(child3, child2, child1):
2      print("The youngest child is " + child3)
3  my_function(child1 = "Emil", child2 = "Tobias", child3 = "Linus")

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.6
The youngest child is Linus
PS C:\Users\USER>
```

Create a Class:

Example:

Create a class named MyClass, with a property named x:

```
class MyClass: x = 5
```

Create Object:

Example:

Create an object named p1, and print the value of x:

```
p1 = MyClass() print(p1.x)
```

The init () Function:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > Person >
1  class Person:
2      def __init__(self, name, age):
3          self.name = name
4          self.age = age
5
6  p1 = Person("John", 36)
7  print(p1.name)
8  print(p1.age)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.exe
John
36
PS C:\Users\USER>
```

Object Methods:

```
C: > Users > USER > OneDrive > Documents > AI-Lab-1 > LAB 2 > ...
1  class Person:
2      def __init__(self, name, age):
3          self.name = name
4          self.age = age
5      def myfunc(self):
6          print("Hello my name is " + self.name)
7
8  p1=Person("John",36)
9  p1.myfunc()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\USER> & C:/Users/USER/AppData/Local/Microsoft/WindowsApps/python3.11.exe
Hello my name is John
PS C:\Users\USER>
```