Python_d36_entri | Version control | Assignment Functions

Session_13.py | Exception Handling.py | File Handling.py | Assignment Functions.py

```python
#Exercise1
# What does the len() function do in Python? Write a code example using len() to find the length of a list.
# The len() Function returns the number of elements in an object (e.g., List,Tuple,String,Dictionary).
#Create a list
Numbers = [1,2,3,4,5]
#Find the length of the list
print("Length of list:", len(Numbers))
```

Run | Assignment Functions

```
C:\Users\hp\PycharmProjects\Python_d36_entri\.venv\Scripts\python.exe "C:\Users\hp\PycharmProjects\Python_d36_entri\Assignment Functions.py"
Length of list: 5

Process finished with exit code 0
```

Python_d36_entri > Assignment Functions.py | 11:1 | CRLF | UTF-8 | 4 spaces | Python 3.12 (Python_d36_entri)

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```
10
11  #Exercise2
12  # Write a Python function greet(name) that takes a person's name as input and prints "Hello, [name]!".
    1 usage
13  def greet(Name):
14      print("Hello," + Name + "!" )
15  #Test the function
16  greet("John")
17
```

Run | Assignment Functions

```
C:\Users\hp\PycharmProjects\Python_d36_entri\.venv\Scripts\python.exe "C:\Users\hp\PycharmProjects\Python_d36_entri\Assignment Functions.py"
Hello,John!

Process finished with exit code 0
```

Python_d36_entri > Assignment Functions.py | 21:1 | CRLF | UTF-8 | 4 spaces | Python 3.12 (Python_d36_entri)

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```python
#Exercise3
# Write a Python function find_maximum(numbers) that takes a list of integers and returns the maximum value without
# using the built-in max() function. Use a loop to iterate through the list and compare values.
1 usage
def Find_Maximum(numbers):
    max_value = numbers[0]
    for num in numbers:
        if num > max_value:
            max_value = num
    return max_value

numbers = [12,25,9,30,45,19]
print("Maximum Value:", Find_Maximum(numbers))
```

Run | Assignment Functions

```
C:\Users\hp\PycharmProjects\Python_d36_entri\.venv\Scripts\python.exe "C:\Users\hp\PycharmProjects\Python_d36_entri\Assignment Functions.py"
Maximum Value: 45

Process finished with exit code 0
```

Python_d36_entri > Assignment Functions.py | 32:1 | CRLF | UTF-8 | 4 spaces | Python 3.12 (Python_d36_entri)

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Python_d36_entri | Version control | Assignment Functions

Session_13.py | Exception Handling.py | File Handling.py | Assignment Functions.py

```
33
34
35  #Exercise4
36  # Explain the difference between local and global variables in a Python function. Write a program where a
37  # global variable and a local variable have the same name and show how Python differentiates between them.
38  #In python:
39  #Local Variables - Defined Inside a function and accessible only within that function
40  #Global Variables - Defined outside functions and accessible from any function
41
42  #Global Variable
43  x=30
    1 usage
44  def test():
45      x=20
46      print("Local x:",x)
47
48  test()
49  print("Global x:",x)
```

Run | Assignment Functions

```
C:\Users\hp\PycharmProjects\Python_d36_entri\.venv\Scripts\python.exe "C:\Users\hp\PycharmProjects\Python_d36_entri\Assignment Functions.py"
Local x: 20
Global x: 30

Process finished with exit code 0
```

Python_d36_entri > Assignment Functions.py | 52:1 | CRLF | UTF-8 | 4 spaces | Python 3.12 (Python_d36_entri)

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Python_d36_entri | Version control | Assignment Functions

Session_13.py | Exception Handling.py | File Handling.py | Assignment Functions.py

```
52
53
54  #Exercise5
55  # Create a function calculate_area(length, width=5) that calculates the area of a rectangle. If only the length
56  # is provided, the function should assume the width is 5. Show how the function behaves when called with and without the width argument.
    2 usages
57  def calculate_area(length,width=5):
58      area = length * width
59      return length * width
60
61  #Test with only length
62  print("Area(default width):", calculate_area(20))
63
64  #Test with length and width
65  print("Area(Custom width):", calculate_area(30))
```

Run | Assignment Functions

```
C:\Users\hp\PycharmProjects\Python_d36_entri\.venv\Scripts\python.exe "C:\Users\hp\PycharmProjects\Python_d36_entri\Assignment Functions.py"
Area(default width): 100
Area(Custom width): 150

Process finished with exit code 0
```

Python_d36_entri > Assignment Functions.py | 66:1 | CRLF | UTF-8 | 4 spaces | Python 3.12 (Python_d36_entri)

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