

Data Structures

Python Assignment

1. Topic :List

Exercise

Q1. Create a list of 5 random numbers and print the list.

Q2. Insert 3 new values to the list and print the updated list.

Q3. Try to use a for loop to print each element in the list.

```
#Q1
import random
l=[random.randint(1,100) for _ in range(5)]
print(l)
#
#Q2
l.extend([55,44,22])
print(l)

#Q3
for i in l:
    print(i)
```

Output:



```
C:\Users\matra\PycharmProjects\Python_D36_ENTRI\.venv\Scripts\python.exe "C:\Users\matra\PycharmProjects\Python_D36_ENTRI\
[78, 10, 19, 77, 95]
[78, 10, 19, 77, 95, 55, 44, 22]
78
10
19
77
95
55
44
22

Process finished with exit code 0
|
```

2. Topic: Dictionary

Exercise

Q1. Create a dictionary with keys 'name', 'age', and 'address' and values 'John', 25, and 'New York' respectively.

Q2. Add a new key-value pair to the dictionary created in Q1 with key 'phone' and value '1234567890'.

```
#Q1.
newdictionary ={
    "Name": "John",
    "Age": "25",
    "Address": "New York"
```

```

}

#Q2.
print(newdictionary)
newdictionary["phone"]="9827387298"
print(newdictionary)

```

Output:

```

C:\Users\matra\PycharmProjects\Python_D36_ENTRI\.venv\Scripts\python.exe "C:\Users\matra\Pych
{'Name': 'John', 'Age': '25', 'Address': 'New York'}
{'Name': 'John', 'Age': '25', 'Address': 'New York', 'phone': '9827387298'}

Process finished with exit code 0

```

3. Topic: Set

Exercise

Q1. Create a set with values 1, 2, 3, 4, and 5.

Q2. Add the value 6 to the set created in Q1.

Q3. Remove the value 3 from the set created in Q1.

```

#Q1.
set1={1,2,3,4,5}
print(set1)

#Q2.
set1.add(6)
print(set1)

#Q3.
set1.remove(3)
print(set1)

```

Output:

```

C:\Users\matra\PycharmProjects\Python_D36_ENTRI\.venv\Scripts\python.exe "C:\Users\mat
{1, 2, 3, 4, 5}
{1, 2, 3, 4, 5, 6}
{1, 2, 4, 5, 6}

Process finished with exit code 0

```

4. Topic: Tuple

Exercise

Q1. Create a tuple with values 1, 2, 3, and 4

Q2. Print the length of the tuple created in Q1.

```

tuple1=(1,2,3,4)
print(tuple1)
print(len(tuple1))

```

output:

```
C:\Users\matra\PycharmProjects\Python_D36_ENTRI\.venv\Scripts\p
```

```
(1, 2, 3, 4)
```

```
4
```

```
Process finished with exit code 0
```

```
|
```