

List

Dictionary

Set

Tuple



ASSIGNMENT:2

Data structures in python

```
random_list = [random.randint(a: 1, b: 100) for _ in range(5)]  
print("Original list:", random_list)  
print (type (random_list))
```

Data_structures_in_python_Assignment_2 x

```
C:\Users\pc\PycharmProjects\Assignments_python_project\.venv\Scripts\python  
Original list: [9, 78, 23, 96, 40]  
<class 'list'>
```

Process finished with exit code 0

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

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

```
# Q2: Insert 3 new values to the list and print the updated list
new_values = [random.randint(a: 1, b: 100) for _ in range(3)]
random_list.extend(new_values)
print("Updated list:", random_list)
```

Data_structures_in_python_Assignment_2 x

:

C:\Users\pc\PycharmProjects\Assignments_python_project\.venv\Scripts\

Original list: [56, 68, 91, 38, 40]


<class 'list'>

Updated list: [56, 68, 91, 38, 40, 79, 91, 3]

Process finished with exit code 0

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

```
#Q3: Use a for loop to print each element in the list
for number in random_list: print(number)
```

 Data_structures_in_python_Assignment_2 x

```
:
```

```
Updated list: [75, 12, 65, 97, 36, 80, 65, 92]
```

```
75
```

```
12
```

```
65
```

```
97
```

```
36
```

```
80
```

```
65
```

```
92
```

```
process finished with exit code 0
```

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

```
# Q1: Create a dictionary
person = { 'name': 'John', 'age': 25, 'address': 'New York' }
print("Original dictionary:", person)
```

Data_structures_in_python_Assignment_2 x

:

```
C:\Users\pc\PycharmProjects\Assignments_python_project\.venv\Scripts\python.exe
Original dictionary: {'name': 'John', 'age': 25, 'address': 'New York'}
```

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

2. Add a new key-value pair to the dictionary created in Q1 with key 'phone' and value '9847869565'.

```
# Q2: Add a new key-value pair to the dictionary
8 person['phone'] = '9847869565'
9 print("Updated dictionary:", person)
```

in Data_structures_in_python_Assignment_2 x

```
Original dictionary: {'name': 'John', 'age': 25, 'address': 'New York'}
```

```
Updated dictionary: {'name': 'John', 'age': 25, 'address': 'New York', 'phone': '9847869565'}
```

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


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

```
# Topic: Set
# Q1: Create a set
my_set = {1, 2, 3, 4, 5}
print("Original set:", my_set)
```

Data_structures_in_python_Assignment_2 ×

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Original set: {1, 2, 3, 4, 5}

Process finished with exit code 0

**2. Add the value
6 to the set
created in Q1**

```
7 # Q2: Add the value 6 to the set
8 my_set.add(6)
9 print("Set after adding 6:", my_set)
```

n  Data_structures_in_python_Assignment_2 x

Original set: {1, 2, 3, 4, 5}

Set after adding 6: {1, 2, 3, 4, 5, 6}

Process finished with exit code 0

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

```
61 #💡Q3: Remove the value 3 from the set
62 my_set.remove(3)
63 print("Set after removing 3:", my_set)
```

Run Data_structures_in_python_Assignment_2 ×

Original set: {1, 2, 3, 4, 5}

Set after adding 6: {1, 2, 3, 4, 5, 6}

Set after removing 3: {1, 2, 4, 5, 6}

Process finished with exit code 0

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

```
67 # Q1: Create a tuple
68 my_tuple = (1, 2, 3, 4)
69 print("Tuple:", my_tuple)
70
```

Run Data_structures_in_python_Assignment_2 ×



↑ C:\Users\pc\PycharmProjects\Assignments_python_pro

↓ Tuple: (1, 2, 3, 4)



Process finished with exit code 0

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

```
71 #💡Q2: Print the length of the tuple  
72 print("Length of the tuple:", len(my_tuple))  
73
```

run Data_structures_in_python_Assignment_2 x

2 | :

Tuple: (1, 2, 3, 4)

Length of the tuple: 4

Process finished with exit code 0