Assignment 2

Data structures in python

Topic: List

Exercise

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

```
# LIST
# 1) Create a list of 5 random numbers and print the list
a=[1, 4, 6, 11, 15]
print(a)
```

```
[1, 4, 6, 11, 15]
```

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

```
# 2) Insert 3 new values to the list and print the updated list
a.extend([20,3,19])
print(a)
```

```
[1, 4, 6, 11, 15, 20, 3, 19]
```

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

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

```
1
4
6
11
15
20
3
19
```

Topic: Dictionary

Exercise

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

```
# 1) Creating the dictionary
d = {'name': 'John', 'age': 25, 'address': 'New York'}
print(d)
```

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

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

```
# 2) Adding a new key-value pair to the dictionary
d['phone'] = '1234567890'
print(d)
```

```
{'name': 'John', 'age': 25, 'address': 'New York', 'phone': '1234567890'}
```

Topic: Set

Exercise

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

```
# 1) Creating the set
b = {1, 2, 3, 4, 5}
print(b)
```

```
{1, 2, 3, 4, 5}
```

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

```
# 2) Adding the value 6 to the set
b.add(6)
print(b)
```

```
{1, 2, 3, 4, 5, 6}
```

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

```
# 3) Removing the value 3 from the set
b.remove(3)
print(b)
```

```
{1, 2, 4, 5, 6}
```

Topic:Tuple

Exercise

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

```
# 1) Create a tuple with values 1, 2, 3, and 4
t1 = (1, 2, 3, 4)
print(t1)
```

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

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

```
# 2) Length of the tuple
print(len(t1))
```

```
4
```