YASH KASARE 24

Strings in Python

```
# Assigning string to a variable
a = 'This is a string'
print (a)
b = "This is a string"
print (b)
c= '''This is a string'''
print (c)
```

```
This is a string
This is a string
This is a string
```

Lists in Python

```
# Declaring a list
L = [1, "a" , "string" , 1+2]
print (L)
#Adding an element in the list
L.append(6)
print (L)
#Deleting last element from a list
L.pop()
print (L)
#Displaying Second element of the list
print (L[1])
```

```
[1, 'a', 'string', 3]
[1, 'a', 'string', 3, 6]
[1, 'a', 'string', 3]
a
```

Tuples in Python

```
tup = (1, "a", "string", 1+2)
print(tup)
print(tup[1])
```

```
(1, 'a', 'string', 3)
a
```

Dictionaries in Python

A Python dictionary is a data structure that stores the value in key: value pairs. Values in a dictionary can be of any data type and can be duplicated, whereas keys can’t be repeated and must be immutable.

```
d = {1: 'Lorem', 2: 'Ipsum', 3: 'Dolerum'}
print(d)
```

```
{1: 'Lorem', 2: 'Ipsum', 3: 'Dolerum'}
```

Create a Dictionary

```
# create dictionary using { }
d1 = {1: 'Game', 2: 'of', 3: 'Thrones'}
print(d1)

# create dictionary using dict() constructor
d2 = dict(a = "House", b = "of", c = "Cards")
print(d2)
```

```
{1: 'Game', 2: 'of', 3: 'Thrones'}
{'a': 'House', 'b': 'of', 'c': 'Cards'}
```

Accessing Dictionary Items

```
d = { "name": "Alice", 1: "Python", (1, 2): [1,2,4] }

# Access using key
print(d["name"])

# Access using get()
print(d.get("name"))
```

```
Alice
Alice
```

Adding and Updating Dictionary Items

```
d = {1: 'Game', 2: 'of', 3: 'Thrones'}

# Adding a new key-value pair
d["age"] = 22

# Updating an existing value
d[1] = "Python dict"

print(d)
```

```
{1: 'Python dict', 2: 'of', 3: 'Thrones', 'age': 22}
```

Delete a Specific Item Using del

```
# Sample dictionary
my_dict = {
    "name": "John",
    "age": 25,
    "city": "New York"
}

# Print original dictionary
print("Original Dictionary:", my_dict)

# Delete an item by its key
del my_dict["age"]

# Print updated dictionary
print("Updated Dictionary:", my_dict)
```

```
Original Dictionary: {'name': 'John', 'age': 25, 'city': 'New York'}
Updated Dictionary: {'name': 'John', 'city': 'New York'}
```

Delete Using .pop() Method

```
# Sample dictionary
my_dict = {
    "name": "John",
    "age": 25,
    "city": "New York"
}

# Print original dictionary
print("Original Dictionary:", my_dict)

# Remove an item and capture the removed value
removed_value = my_dict.pop("city")

# Print updated dictionary and the removed value
print("Updated Dictionary:", my_dict)
print("Removed Value:", removed_value)
```

```
Original Dictionary: {'name': 'John', 'age': 25, 'city': 'New York'}
Updated Dictionary: {'name': 'John', 'age': 25}
Removed Value: New York
```

Delete All Items Using .clear()

```
# Sample dictionary
my_dict = {
```

```
    "name": "John",
    "age": 25,
    "city": "New York"
}

# Print original dictionary
print("Original Dictionary:", my_dict)

# Clear all items from the dictionary
my_dict.clear()

# Print the empty dictionary
print("Cleared Dictionary:", my_dict)
```

```
Original Dictionary: {'name': 'John', 'age': 25, 'city': 'New York'}
Cleared Dictionary: {}
```

Start coding or generate with AI.