

Lect - 23

Dictionary part 1

Creating simple dictionary

```
In [1]: person = {  
        'name' : "Swati",  
        'age' : 30,  
        'city' : 'BANGALORE'  
        }
```

```
In [2]: print(person)  
print(type(person))
```

```
{'name': 'Swati', 'age': 30, 'city': 'BANGALORE'}  
<class 'dict'>
```

Dictionary with different data types

```
In [5]: mixed_dict = {  
        'name' : "Bob",  
        'age' : 25,  
        'is_student' : True,  
        'courses' : ['maths', 'physics', 'chemistry'],  
        'address' : {  
            'street' : "123 main st",  
            'city' : "Delhi",  
            'zipcode' : "12345"}  
        }
```

```
In [6]: print(mixed_dict)  
print(type(mixed_dict))
```

```
{'name': 'Bob', 'age': 25, 'is_student': True, 'courses': ['maths', 'physics',  
'chemistry'], 'address': {'street': '123 main st', 'city': 'Delhi', 'zipcod  
e': '12345'}}  
<class 'dict'>
```

Empty dictionary

```
In [7]: empty = {}  
print(empty)  
print(type(empty))  
  
{}  
<class 'dict'>
```

Dict Constructor

```
In [8]: person = dict(name = 'swati', age = 25, city = 'mumbai' )  
print(person)  
print(type(person))  
  
{'name': 'swati', 'age': 25, 'city': 'mumbai'}  
<class 'dict'>
```

Dictionary comprehension

```
In [9]: squares = {x: x*x for x in range(6)}  
print(squares)  
  
{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
```

practice question

```
In [ ]: Imagine you are managing an inventory of products in a store.  
Create a Python program that initializes a dictionary  
to store the following information about products:  
  
Product ID as the key (an integer).  
Product name as the value (a string).  
Your program should:  
  
Create an empty dictionary.  
Prompt the user to enter details for at least 3 products.  
Populate the dictionary with the entered product IDs and names.  
Display the final dictionary containing all product IDs and names.
```