# Experiment No.2#f

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**Aim:**To study advanced Data types and functions in Python.

Write a menu-driven program to demonstrate the use of dictionary in python:
i) Create key/value pair dictionary.
ii) Update/concatenate and delete item from existing dictionary.
iii) Find a key and print its value.

**Theory:**

There are four different types in Python:

1. int(plain integers): this one is pretty standard -plain integers are just positive or negative whole numbers.
2. long (long integers): long integers are integers of infinite size. They look like plain integers except they're followed by letter "L".
3. float (floating point real values): floats represent real numbers, but are written with decimal points(for scientific notation) to divide the whole number into fractional parts.
4. complex(complex numbers): Represented by the formula a+bj where a and b are floats,and j is the square root of -1 (the result of which is an imaginary number). Complex numbers are used sparingly in Python.
5. A tuple is a collection type data structure which is immutable by design and holds a sequence of heterogeneous elements.
6. Tuples store a fixed set of elements and don't allow changes whereas the list has the provision to update its content.

**Algorithms:**

1. Begin
2. While True
3. Create a menu user i/p statement with the input choice using print
4. Take the input from the user and store it in var choice
5. Create a dictionary name my_dict which has key and values respectively.
6. Create another dictionary named my_dict1
7. If choice == 1:
8. Print the original dictionary
9. Choice == 2:
10. Update the dictionary
11. By giving the value to the key
12. Choice == 3:
13. Extract and print down the value of the specified key
14. Choice == 4:
15. Print my_dict and my_dict1
16. To concatenate my_dict with my_dict1 use update keyword
17. Del the dictionary by del my_dict[key_to_del]
18. Choice == 5:
19. Break
20. Exit

## Codes:

```
while True:
    print("\n")
    print("Menu Driven Program")
    print("1. Print out the Dictionary: ")
    print("2. Update your Dictionary: ")
    print("3. Find a key & print value: ")
    print("4. concatenate and delete the dictionary: ")
    print("5. Exit ")
    choice = int(input("Enter your Choice: "))
    my_dict = {"Name": "Tom","Address": "Mumbai","Age": "19"}
    my_dict1 = {"Car":"Mercedes-AMG","Model":2020,"Class":"A-Class"}

    if choice == 1:
        print("-"*30+"Dictionary-1"+"-"*30)
        print(my_dict)
        print("-"*30+"Dictionary-2"+"-"*30)
        print(my_dict1)

    elif choice == 2:
        my_dict["Name"] = "Frason"
        my_dict["Address"] = "Pune"
        print(my_dict)

    elif choice == 3:
        print("Name: ",my_dict['Name'])
```

```
elif choice == 4:
    print("My dictionary1: ",my_dict)
    print("My dictionary2: ",my_dict1)
    my_dict.update(my_dict1)
    print("Final Dict after Concat: ",my_dict)
    key_to_del = input("Enter the key to delete: ")
    if key_to_del in my_dict:
        del my_dict[key_to_del]
    else:
        print("Enter a valid key.")
    print("Final Dict: ",my_dict)


elif choice == 5:
    break

else:
    print("You entered wrong choice")
```

# Output:

```
In [9]: runcell(0, 'C:/Users/jkfra/Desktop/Py-Labs/Exp-2e.py')


Menu Driven Program
1. Print out the Dictionary:
2. Update your Dictionary:
3. Find a key & print value:
4. concatenate and delete the dictionary:
5. Exit

Enter your Choice: 1
------------------------------Dictionary-1------------------------------
{'Name': 'Tom', 'Address': 'Mumbai', 'Age': '19'}
------------------------------Dictionary-2------------------------------
{'Car': 'Mercedes-AMG', 'Model': 2020, 'Class': 'A-Class'}


Menu Driven Program
1. Print out the Dictionary:
2. Update your Dictionary:
3. Find a key & print value:
4. concatenate and delete the dictionary:
5. Exit

Enter your Choice: 2
{'Name': 'Frason', 'Address': 'Pune', 'Age': '19'}


Menu Driven Program
1. Print out the Dictionary:
2. Update your Dictionary:
3. Find a key & print value:
4. concatenate and delete the dictionary:
5. Exit
```

```
Menu Driven Program
1. Print out the Dictionary:
2. Update your Dictionary:
3. Find a key & print value:
4. concatenate and delete the dictionary:
5. Exit

Enter your Choice: 4
My dictionary1:  {'Name': 'Tom', 'Address': 'Mumbai', 'Age': '19'}
My dictionary2:  {'Car': 'Mercedes-AMG', 'Model': 2020, 'Class': 'A-Class'}
Final Dict after Concat:  {'Name': 'Tom', 'Address': 'Mumbai', 'Age': '19', 'Car': 'Mercedes-AMG',
'Model': 2020, 'Class': 'A-Class'}

Enter the key to delete: Class
Final Dict:  {'Name': 'Tom', 'Address': 'Mumbai', 'Age': '19', 'Car': 'Mercedes-AMG', 'Model':
2020}


Menu Driven Program
1. Print out the Dictionary:
2. Update your Dictionary:
3. Find a key & print value:
4. concatenate and delete the dictionary:
5. Exit

Enter your Choice: 5

In [10]:
```

## Conclusion:

In this experiment we have successfully implement dictionary data structure and used different types of methodology to extract the given information.