

Python Activity – 3

Topics: dictionary (dict) & set

Test on python shell

1. Create an empty dictionary, display size & it's type.

2. Given

DBI={'db1':'sql','db2':'sqlite','db3':'mysql'}.

a. Display **'db2'** value

b. Replace **mysql** with **pl/sql**

c. Display list of keys from DBI

3. Given

net_info={'interface':'eth0','type':'ethernet'}

a. How to test key interface is existing or not

b. If key interface is exists – update interface type as eth1

c. Display updated net_info dictionary

4. Write a python program

Given list structure

```
Emp = [ "e123,ram,sales,pune,1000",  
"e132,kumar,prod,bglore,3423",  
"e456,arun,prod,chennai,2456",  
"e544,vijay,hr,mumbai,6500" ]
```

- a. create an empty dictionary and name it as Emp
- b. convert the above given list into dict format.
- c. display list of key,value pairs from EMP dict

Note:- employee id as a key, emp name as value

5. Given dictionary

```
conf={"f1":"/etc/passwd","f2":"/etc/group",  
"f3": "/etc/sysconfig","f4":None  
}
```

- a. Determine the size of conf dictionary
- b. Add new configuration file (/etc/pam.d)
- c. Using keys() and get() display key,value details

6. Given dict structure

Proc={'pid':12,'fs':'/proc','user':'root','sh':'/bin/bash'}

using pop() - delete 'fs' and 'sh' key entries

using del() - delete 'pid' and 'user' entries

what's the difference between pop() and del()

using popitem() - delete Proc structure

7. Write a python program:

Step 1: create a new file host.py

Step 2 : create an empty dict

Step 3 : use looping statements – 5times

i) Read a hostname from <STDIN>

ii) Read a IP-Address from <STDIN>

iii) Add a input details to existing dict

iv) with hostname as a key and IP address as it's value

Step 4 : display Key/ value details to monitor

8. Write a python program – modify the above program (host.py)

Step 1: read a hostname from <STDIN>

Step 2: Use membership operator to test whether the input hostname already exists or not.

Step 3: if it's exists already, display pop up message “Sorry your input hostname is exists”.

9. Identify the errors

a)

```
car = { "brand":  
"Ford" "model":  
"Mustang"  
"year": 1964  
}
```

b) `fs={"ftype":"ext4","proto":"tcp/ip","port":80}`
`print(fs["ext4"])`

c) `d={True:1,[],:"list"}`

10. Open a python shell

```
A={"p1.c","p2.c","p3.java","Demo"}
```

```
B={"p1.java","p1.c","p3.java","p2.c","Demo","D1"}
```

- Filter common files from the above two sets
- Combine both sets into single set and omit duplicate elements.
- type cast to list

11. Predict the result of below set operations

$S1 = \{'data1', 'data2', 'data3'\}$

$S2 = \{'data2', 'data3', 'data4', 'data5'\}$

`print(S1-S2)`

`print(S2-S1)`

`print(S1 ^ S2)`

12. A. How to test if a specific value exists in a set?

B. Given set is $s = \{10, 1.23, 'data'\}$

How to add following items to an existing set

I. Host="host01"

II. L=["host02", "host01", "host03"]