Python Assessment

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Table of Contents

1 Searching

```python
#checking whether the file exist or not
import os.path
from os import path

def search(filename):
    ext = filename.split(".")
    a= str(path.exists(filename))
    if (a=='True'):
        print("FILE EXISTS!!! AND THE EXTENSIONS OF THE FILE IS '.",ext[-1],"'")
    else:
        print("FILE DOES NOT EXISTS!!!")
fname = input("enter the filename to be searched:")
search(fname)
```

Output

```
============= /home/padmini/Documents/vvdn-training/pyass.py
enter the filename to be searched:task.sh
FILE EXISTS!!! AND THE EXTENSIONS OF THE FILE IS '. sh '
>>>
============= RESTART: /home/padmini/Documents/vvdn-training/pyass.py
enter the filename to be searched:sample.txt
FILE DOES NOT EXISTS!!!
>>>
```

2 Type casting

Read the input from user and check the data type and try to implement type casting of the value

```python
#type casting
n = int(input("enter any number:"))
if(type(n)==int):
    print(float(n))
else:
    print("enter number only!!!")
```

Output

```
enter any number:123
123.0
>>>
============ RESTART: /home/padmini/Documents/vvdn-training/pyass.py =========
enter any number:w
Traceback (most recent call last):
  File "/home/padmini/Documents/vvdn-training/pyass.py", line 72, in <module>
    n = int(input("enter any number:"))
ValueError: invalid literal for int() with base 10: 'w'
```

3 Variable

Assign a value to variable and print the variable

```
>>> variable = 2020
>>> print(variable)
2020
>>>
```

4 String

1 Write a python program to replace a string "Python" with "Java" and "Java" with "Python"

```python
#replacing string
import string
strings = "Python is easier than Java"
newString = strings.replace("Java","%temp%").replace("Python","Java").replace("%temp%","Python")
print(strings)
print("-----------------------------")
print(newString)
```

Output

```
Python is easier than Java
-----------------------------
Java is easier than Python
```

2 Write a program to calculate the length of a string

```
>>> a='python is easy to learn'
>>> len(a)
23
```

3 Write a program to reverse a string

```python
#Reverse a string
def reverse(string):
    temp = ''
    for i in string:
        temp = i+temp
    return temp
s = input('enter the string:')
print(reverse(s))
```

Output

```
enter the string:python is easy to learn
nrael ot ysae si nohtyp
```

5 List

1 Create a list and sum all the items in list

```python
>>> a=[1,2,3]
>>> sum(a)
6
```

2 Write a python program to convert a list of characters into a string

```python
#Convert the list of characters into string

charList = ['p','y','t','h','o','n']
print(charList)
strList = ''.join(charList)
```

Output

```
['p', 'y', 't', 'h', 'o', 'n']
python
```

6 Dictionary

1 Write a python program to concatenate two dictionaries to create a new one.

```python
#Pyhton scrip to concatenate two dictionary to create a new one
dic1 = {1:1,2:2}
dic2 = {3:3,4:4}
dic1.update(dic2)
newDictionary = dic1
print(newDictionary)
```

Output

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

2 Write python script to check whether a given key already exits in a dictionary.

```python
stuDetail = {1:'joe',2:'john',3:'harry',4:'ron'}
def keyPresent(key):
    if key in stuDetail:
        print('entered key is present in the dictionary')
    else:
        print('entered key is not present in the dictionay')
inputKey = int(input('enter the input as integer:'))
keyPresent(inputKey)
```

Output

```
enter the input as integer:3
entered key is present in the dictionary
>>>
============ RESTART: /home/padmini/Documents,
enter the input as integer:5
entered key is not present in the dictionay
```

7 Tuple

Write a program to create a tuple

```python
>>> fruit = ('apple','orange')
>>> type(fruit)
<class 'tuple'>
```

8 Control and looping

1 Print the number from 1-10 using while

```python
#Displaying 1-10 using while loop
i=1
while(i<=10):
    print(i)
    i=i+1
```

Output

```
1
2
3
4
5
6
7
8
9
10
```

2 Program to break the loop if user given as input , if y continue

```python
#Write a python program to break the loop
while(True):
    uinput = input("enter 'input' to break the loop and 'y' to continue:")
    if (uinput=='input'):
        break
    elif(uinput == 'y'):
        continue
    else:
        print("enter the valid input !!!")
```

Output

```
enter 'input' to break the loop and 'y' to continue:y
enter 'input' to break the loop and 'y' to continue:input
```

3 Write a Python program to iterate over dictionaries using for loops

```python
#Iterate over dictionary using for loop

stuDetail = {'john':1,'rose':2,'dereck':3,'harry':4}
for iteration in stuDetail:
    print (iteration)
```

Output

```
john
rose
dereck
harry
```

4 Read two value and check which number is greater

```python
#Read 2 value and check which number is greater
num1 = int(input("enter the 1st number:"))
num2 = int(input("enter the 2st number:"))
if (num1 > num2):
    print(num1,"is greater than ",num2)
else:
    print(num2,"is greater than ",num1)
```

Output

```
enter the 1st number:4
enter the 2st number:2
4 is greater than  2
>>>
=========== RESTART: /hom
enter the 1st number:3
enter the 2st number:54
54 is greater than  3
>>> |
```
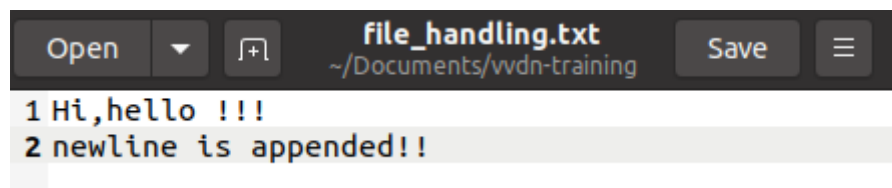
9 File Handling

```python
def main():
    f = open("file_handling.txt","w+")
    f.write("Hi,hello !!! This the firstline of this file")
    f.close()

    f = open("file_handling.txt","a")
    f.write("\nnewline is appended!!")
    f.close()

if __name__=="__main__":
    main()
```

Output