GO_STP_13267

Task 3

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Dictionary Questions

Q.1 Write a Python Program to sort (ascending and descending) a dictionary by value.

```
temp_dict={1:4, 10:1, 2:2, 5:1, 8:3}
print("Ascending order of values")
print(sorted(temp_dict.items(), reverse=False, key=lambda dic:(dic[1],dic[0])))

print("Descending order of values")
print(sorted(temp_dict.items(), reverse=True, key=lambda dic:(dic[1],dic[0])))
```

```
Ascending order of values
[(5, 1), (10, 1), (2, 2), (8, 3), (1, 4)]
Descending order of values
[(1, 4), (8, 3), (2, 2), (10, 1), (5, 1)]
```

Q.2 Write a Python Program to add a key to a dictionary.

Sample Dictionary : {0: 10, 1: 20}

Expected Result : {0: 10, 1: 20, 2: 30}

```
dict1={0:10, 1:20}
key, value=map(int, input().strip().split(" "))
dict1[key]=value
print(dict1.items())
```

```
dict_items([(0, 10), (1, 20), (2, 30)])
```

Q.3 Write a program asks for City name and Temperature and builds a dictionary using that Later on you can input City name and it will tell you the Temperature of that City.

```
temperature={}
flag=True
while(flag):
    city, temp=input().split()
    temperature[city]=temp
    ans=input("Want to enter more? y/n")
    flag=(ans=="y")
print(temperature.items())

city=input("Enter city name: ")
if(city in temperature.keys()):
    print(city+":"+temperature[city])
```

```
dict_items([('Jaipur', '33'), ('Chennai', '35')])
Jaipur:33
```

Q.4 Write a Python program to convert list to list of dictionaries.

Sample lists: [["Black", "Red", "Maroon", "Yellow"],

["#000000", "#FF0000", "#800000", "#FFFF00"]]

Expected_Output=[{'color_name': 'Black', 'color_code': '#000000'},

{'color_name': 'Red', 'color_code': '#FF0000'},

{'color_name': 'Maroon', 'color_code': '#800000'},

{'color_name': 'Yellow', 'color_code': '#FFFF00'}]

```
color=["Black", "Red", "Maroon", "Yellow"]
hex_code=["#000000", "#FF0000", "#800000", "#FFFF00"]
list_of_dict=list()
for c, h in zip(color, hex_code):
    d={'color_name':c, 'color_code':h}
    list_of_dict.append(d)
print(list_of_dict)
```

```
[{'color_name': 'Black', 'color_code': '#000000'}, {'color_name': 'Red', 'color_code
```

Q.5 We have following information on Employees and their Salary (Salary is in lakhs)

```
employee=['John', 'Smith', 'Alice', 'Daneil']
salary=[14,13,32,21]
```

```
data={}
for e, s in zip(employee, salary):
    data[e]=s

choice=input("Enter command")
if(choice=="print"):
    for emp in data.keys():
        print(emp+"==>"+str(data[emp]))
elif(choice=="add"):
    name=input("Enter the name of employee")
    if name in data.keys():
        print(name+" Already exists")
    else:
        sal=int(input("Enter salary"))
        data[name]=sal
        print("Dictionary:",data.items())
elif(choice=="remove"):
    name=input("Enter name to remove")
    if name in data.keys():
        data.pop(name)
        for emp in data.keys():
            print(emp+"==>"+data[emp])
    else:
        print(name+" doesn't exist!")
elif(choice=="query"):
    name=input("Enter name of employee")
    print(name+": "+str(data[name]))
```

```
John==>14
Smith==>13
Alice==>32
Daneil==>21
```

Set Questions

Q.1 What is the difference between a set and a frozenset? Create any set and try to use frozenset(setname).

Ans.1 Frozen set is just an immutable version of a set.

```
set1={2,1,4,7,3,10}
print(set1)
print(frozenset(set1).difference({4}))
set1.discard(4)
print(set1)
```

```
{1, 2, 3, 4, 7, 10}
frozenset({1, 2, 3, 7, 10})
{1, 2, 3, 7, 10}
```

Q.2 Find the elements in a given set that are not in another set

Difference between set1 and set2 is {10,20,30}

```
1 set1 = {10,20,30,40,50}
2 set2 = {40,50,60,70,80}
3 print(set1-set2)
```

```
{10, 20, 30}
```