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Register No: 23MCA1030   **Date**:30-08-2023

Exercise 6: Dictionaries

Q1. Write a Python program to Create a dictionary of your choice and perform all the possible operations , Functions and methods on it.

```python
print("Name : Vinayak Kumar Singh \nRegister No : 23MCA1030")
state_capitals={"Andhra
Pradesh":"Amaravati","Bihar":"Patna","Chhattisgarh":"Raipur","Mahar
ashtra"
:"Mumbai","Tamil Nadu":"Chennai"}

print("\n1.Printing Dictionary of State and Capitals")
print(state_capitals)

print("\n2.Using keys to Accessing a Value in a Dictionary")
print(state_capitals ["Bihar"])

print("\n3.Using get method to Accessing a Value in a Dictionary")
print (state_capitals.get("Tamil Nadu"))

print("\n4.Modifying the values:")
state_capitals["Andhra Pradesh"] = "Visakhapatnam"
print("Updated capital of Andhra Pradesh:", state_capitals["Andhra
Pradesh"])

print("\n5.Using update method in a Dictionary")
emptydictionary = {}
dictionarywithdata = {"India": "New Delhi", "England": "London"}
emptydictionary.update(dictionarywithdata)
print (emptydictionary)
```

```python
print("\n6.Using copy in a Dictionary")
original_data = {'Python':95, 'Java':82,'DSA':75,'DBMS':78}
copied_data = original_data.copy()
print('original data:', original_data)
print('copied data', copied_data)

print("\n7.Using fromkeys in a Dictionary")
keys = {'Liberty City','Vice City','San Andreas','Grand Theft Auto
V'}
value = 'RockstarGames'
RockstarGames = dict.fromkeys(keys, value)
print(RockstarGames)

print("\n9.Using items in a Dictionary")
Birthdate = { 'A':'10','B':'August','C':2002}
print(Birthdate.items())

print("\n10.Using keys and values Functions in Dictionary
Methods:")
print("States are key:", state_capitals.keys())
print("Capitals are value:", state_capitals.values())

print("\n11.Using Pop method in a Dictionary")
dict2= {"India": "New Delhi", "England": "London"}
print('All vaue in dic2 is:',dict2)
element = dict2.pop('India')
print('Popping value of India:', element)

print("\n12.Clearing the dictionary:")
state_capitals.clear()
print("Cleared dictionary:", state_capitals)

print("\n13. Using setdefault() in a Dictionary:")
my_dict = {'State': 'Karnataka', 'City': 'Bangalore'}
print("Value for 'State':", my_dict.setdefault('State', None))
print("Value for 'Country':", my_dict.setdefault('Country', None))
```

Output:

```
D:\MCA>python -u "d:\MCA\6. Python Programming + LAB\LAB\6.1.py"
Name : Vinayak Kumar Singh
Register No : 23MCA1030

1.Printing Dictionary of State and Capitals
{'Andhra Pradesh': 'Amaravati', 'Bihar': 'Patna', 'Chhattisgarh': 'Raipur', 'Maharashtra': 'Mumbai', 'Tamil Nadu': 'Chennai'}

2.Using keys to Accessing a Value in a Dictionary
Patna

3.Using get method to Accessing a Value in a Dictionary
Chennai

4.Modifying the values:
Updated capital of Andhra Pradesh: Visakhapatnam

5.Using update method in a Dictionary
{'India': 'New Delhi', 'England': 'London'}

6.Using copy in a Dictionary
original data: {'Python': 95, 'Java': 82, 'DSA': 75, 'DBMS': 78}
copied data {'Python': 95, 'Java': 82, 'DSA': 75, 'DBMS': 78}

7.Using fromkeys in a Dictionary
{'Liberty City': 'RockstarGames', 'Grand Theft Auto V': 'RockstarGames', 'Vice City': 'RockstarGames', 'San Andreas': 'RockstarGames'}

9.Using items in a Dictionary
dict_items([('A', '10'), ('B', 'August'), ('C', 2002)])

10.Using keys and values Functions in Dictionary Methods:
States are key: dict_keys(['Andhra Pradesh', 'Bihar', 'Chhattisgarh', 'Maharashtra', 'Tamil Nadu'])
Capitals are value: dict_values(['Visakhapatnam', 'Patna', 'Raipur', 'Mumbai', 'Chennai'])

11.Using Pop method in a Dictionary
All vaue in dic2 is: {'India': 'New Delhi', 'England': 'London'}
Popping value of India: New Delhi

12.Clearing the dictionary:
Cleared dictionary: {}

13. Using setdefault() in a Dictionary:
Value for 'State': Karnataka
Value for 'Country': None
```

END