DAY 5 TASK.py - C:/Users/krsub/OneDrive/Desktop/internship/DAY 5 TASK.py (3.10.0)

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```
# Task 1

t1 = (10, 20, "Python", "Code")
t2 = ("A", "B")

print(t1[0])
print(t2[-1])
l = list(t1)
l[-1] = "Program"
t1 = tuple(l)
print(t1)
a, b, c, d = t1
print(a, b, c, d)
t = t1 + t2
print(t)
print(t1[1:4])
print("=" * 60)

#Task 2

t1 = (1, 2, 3)
# Multiply the tuple by 3
result = t1 * 3
print(result)
print("=" * 60)

#Task 3

my_set = {10, 20, 30, 40}
# 1. Print the given set
print(my_set)
# 2. Check whether 20 is present in my_set
print(20 in my_set)
# 3. Find and print the length of my_set
print(len(my_set))
# 4. Add 50 to my_set
my_set.add(50)
print(my_set)
# 5. Remove 30 from my_set
my_set.remove(30)
print(my_set)
# 6. Remove an element using discard()
my_set.discard(20)
print(my_set)
# 7. Remove a random element
my_set.pop()
print(my_set)
```

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```
my_set.pop()
print(my_set)
# 8. Loop through my_set
for item in my_set:
    print(item)
# 9. Clear all elements
my_set.clear()
print(my_set)
print("=" * 60)

#Task 4

set1 = {1, 2, 3}
set2 = {3, 4, 5, 6}
# Elements in set1 but not in set2
print(set1 - set2)
# Symmetric difference
print(set1 ^ set2)
# Add all items from set2 into set1
set1.update(set2)
print(set1)
# Union of set1 and set2
print(set1 | set2)
# Add 7 to set1
set1.add(7)
print(set1)
print("=" * 60)

#Task 5

student = {
    "name": "Anu",
    "age": 20,
    "course": "Python"
}
# Print keys, values, items
print(student.keys())
print(student.values())
print(student.items())
# Access value of "name"
print(student["name"])
# Access value using get()
print(student.get("course"))
# Add new key "marks"
student["marks"] = 85
print(student)
# Update age
```

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```
# Update age
student["age"] = 21
print(student)
# Remove "course"
student.pop("course")
print(student)
# Remove last inserted item
student.popitem()
print(student)
# Loop through dictionary
for key, value in student.items():
    print(key, ":", value)
print("=" * 60)

#Task 6

students = {
    "student1": {"name": "Anu", "age": 20},
    "student2": {"name": "Ravi", "age": 21}
}
# Print nested dictionary
print(students)
# Copy dictionary
students_copy = students.copy()
print(students_copy)
print("=" * 60)

#Task 7

employee = {
    "emp_id": 101,
    "name": "Kiran",
    "department": "HR",
    "salary": 35000
}
# Display all keys
print(employee.keys())
# Display all values
print(employee.values())
# Display all key-value pairs
print(employee.items())
# Access name
print(employee["name"])
# Update salary
employee["salary"] = 40000
print(employee)
```

IDLE Shell 3.10.0

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```
======= RESTART: C:/Users/krsub/OneDrive/Desktop/internship/DAY 5 TASK.py ======
10
B
(10, 20, 'Python', 'Program')
10 20 Python Program
(10, 20, 'Python', 'Program', 'A', 'B')
(20, 'Python', 'Program')
============================================================
(1, 2, 3, 1, 2, 3, 1, 2, 3)
============================================================
{40, 10, 20, 30}
True
4
{40, 10, 50, 20, 30}
{40, 10, 50, 20}
{40, 10, 50}
{10, 50}
10
50
set()
============================================================
{1, 2}
{1, 2, 4, 5, 6}
{1, 2, 3, 4, 5, 6}
{1, 2, 3, 4, 5, 6}
{1, 2, 3, 4, 5, 6, 7}
============================================================
dict_keys(['name', 'age', 'course'])
dict_values(['Anu', 20, 'Python'])
dict_items([('name', 'Anu'), ('age', 20), ('course', 'Python')])
Anu
Python
{'name': 'Anu', 'age': 20, 'course': 'Python', 'marks': 85}
{'name': 'Anu', 'age': 21, 'course': 'Python', 'marks': 85}
{'name': 'Anu', 'age': 21, 'marks': 85}
{'name': 'Anu', 'age': 21}
name : Anu
age : 21
============================================================
{'student1': {'name': 'Anu', 'age': 20}, 'student2': {'name': 'Ravi', 'age': 21}}
{'student1': {'name': 'Anu', 'age': 20}, 'student2': {'name': 'Ravi', 'age': 21}}
============================================================
dict_keys(['emp_id', 'name', 'department', 'salary'])
dict_values([101, 'Kiran', 'HR', 35000])
dict_items([('emp_id', 101), ('name', 'Kiran'), ('department', 'HR'), ('salary', 35000)])
Kiran
{'emp_id': 101, 'name': 'Kiran', 'department': 'HR', 'salary': 40000}
```