THADOMAL SHAHANI
TSEC
ENGINEERING COLLEGE

ATHARVA YADAV
ROLL NO : 127
BATCH : S23

Sets and Dictionary

CODE:

```
students = {"Atharva", "shivam", "Aniket", "Kunal", "Vamshi",
"Atharva", True, 1, 0, False} print(students) print(type(students))
print(len(students)) set1 = set(("raspberry", "banana", "Orange",
"Mango", "Apple", "cherry")) print(set1) for x in set1:     print(x)
set2 = {"raspberry", "banana", "Orange", "Mango", "Apple", 10,
30} print("banana" in set2) students = {"Atharva", "shivam",
"Aniket", "Kunal", "Vamshi"} students.add("atharva")
print(students) set1 = {"banana", "Orange", "Mango", "Apple",
10 , True} students.update(set1) print(students) students =
{"Atharva", "shivam", "Aniket", "Kunal", "Vamshi"}
students.remove("Kunal")
print(students) students = {"Atharva", "shivam",
"Aniket", "Kunal", "Vamshi"} students.discard("Atharva")
print(students) students.pop() print(students)
students.clear() print(students) del students students =
{"Atharva", "shivam", "Aniket", "Kunal", "Vamshi"} set1
= {"banana", "Orange", "Mango", "Apple", 10 , True}
```

```
final_set = students.union(set1) print(final_set) set3 =
{"banana", "Orange", "Mango"} set4 = {"Atharva",
"shivam", "Mango"} set3.intersection_update(set4)
print(set3) set3 = {"banana", "Orange", "Mango"} set4 =
{"Atharva", "shivam", "Mango"} inter_set =
set3.intersection(set4) print(inter_set) set3 =
{"banana", "Orange", "Mango"} set4 = {"Atharva",
"shivam", "Mango"}
set3.symmetric_difference_update(set4) print(set3) set3
= {"banana", "Orange", "Mango"} set4 = {"Atharva",
"shivam", "Mango"} sym_set =
set3.symmetric_difference(set4) print(sym_set) fruits =
{"banana", "Orange", "Mango"} x = fruits.copy() print(x)
set3 = {"banana", "Orange", "Mango"} set4 = {"Atharva",
"shivam", "Mango"} z = set3.difference(set4) print(z)
set3 = {"banana", "Orange", "Mango"} set4 = {"Atharva",
"shivam", "Mango"} set3.difference_update(set4)
print(set3) set3 = {"banana", "Orange", "Mango"} set4 =
{"Atharva", "shivam", "apple"} z = set3.isdisjoint(set4)
print(z) set3 = {"banana", "Orange", "Mango", "Apple",
"cherry"} set4 = {"banana", "Orange", "Mango"}
```

```
z = set4.issubset(set3) print(z) set3 = {"banana",

"Orange", "Mango", "Apple", "cherry"} set4 = {"banana",

"Orange", "Mango"} z = set3.issuperset(set4) print(z)
```

Output:

```
{0, True, 'Vamshi', 'shivam', 'Aniket', 'Atharva', 'Kunal'}
<class 'set'>
7
{'banana', 'Apple', 'raspberry', 'Orange', 'Mango',
'cherry'} banana Apple raspberry Orange Mango
cherry
True
{'atharva', 'Vamshi', 'Aniket', 'shivam', 'Atharva', 'Kunal'}
{'atharva', 'Vamshi', True, 'banana', 'Aniket', 'shivam', 'Apple', 10,
'Kunal', 'Orange', 'Mango', 'Atharva'}
{'Vamshi', 'Aniket', 'shivam', 'Atharva'}
{'Vamshi', 'Aniket', 'shivam', 'Kunal'}
{'Aniket', 'shivam', 'Kunal'} set()
{True, 'Vamshi', 'banana', 'Aniket', 'shivam', 'Apple', 10, 'Kunal',
'Orange', 'Mango', 'Atharva'}
{'Mango'}
{'Mango'}
{'banana', 'shivam', 'Orange', 'Atharva'}
{'banana', 'shivam', 'Orange', 'Atharva'}
{'banana', 'Orange', 'Mango'}
{'banana', 'Orange'}
{'banana', 'Orange'}
True
True
True

=== Code Execution Successful ===
```

```
Functions: student = {"name": "Atharva",
        "age": 19,
        "gender": "male", "branch": "IT"}
print(student) print(len(student))
print(type(student)) print(student["name"])
x = student.get("name") print(x) student1 =
dict(name="Aniket", gender="male")
print(student1) x = student.keys() print(x)
student["DOB"] = 2005 print(student)
        x = student.values() print(x)
        student["name"] = "Atharva Pawaskar"
        print(student) x = student.items()
        print(x) student["name"] = "Atharva"
        print(x)   student   =   {"name":
        "Atharva", "age": 19,
        "gender":  "male",  "branch":  "IT"}
        student.update({"name": "Atharva
Pawaskar"}) print(student)
        student.update({"DOB": 2005})
        print(student) student.pop("DOB")
        print(student) student = {"name":
        "Atharva", "age": 19,
        "gender": "male",
```

```
"branch": "IT"}
student.popitem()  print(student)

student  =  {"name":  "Atharva",

"age": 19,

"gender": "male", "branch":

"IT"} print(student) del

student["branch"] print(student)

student.clear() print(student)

del student student = {"name":

"Atharva", "age": 19,

"gender": "male", "branch":

"IT"} for x in student:

print(x) for x in student:

print(student[x]) for x in

student.keys():     print(x)

for x in student.values():

print(x) for x in

student.items():     print(x)

new_dict = student.copy()

print(new_dict) new_dict1 =

dict(student) print(new_dict1)

all_student = {"student1":

{
```

```
        "name": "Atharva",
        "age": 19,
        "gender": "male",
        "branch": "IT"
        },
        "student2":
        {
        "name": "Aniket",
        "age": 18,
        "gender": "male",
        "branch": "IT"
        }
        }
        print(all_student) print(all_student["student1"]["name
"])
        x = ("key1", "key2", "key3") y = 0
        new_dict = dict.frAtharvakeys(x, y)
        print(new_dict) student = {"name":
        "Atharva", "age": 19, "gender":
        "male"} x =
        student.setdefault("branch",
"IT")
      print(x)
```

Output:

```
{'name': 'Atharva', 'age': 19, 'gender': 'male', 'branch': 'IT'}
4
<class 'dict'>
Atharva
Atharva
{'name': 'Aniket', 'gender': 'male'}
dict_keys(['name', 'age', 'gender', 'branch'])
{'name': 'Atharva', 'age': 19, 'gender': 'male', 'branch': 'IT',
'DOB': 2005} dict_values(['Atharva', 19, 'male', 'IT', 2005])
{'name': 'Atharva Pawaskar', 'age': 19, 'gender': 'male', 'branch':
'IT', 'DOB':
2005} dict_items([('name', 'Atharva Pawaskar'), ('age', 19),
('gender', 'male'), ('branch',
'IT'), ('DOB', 2005)]) dict_items([('name', 'Atharva'), ('age',
19), ('gender', 'male'), ('branch', 'IT'), ('DOB', 2005)])
{'name': 'Atharva Pawaskar', 'age': 19, 'gender': 'male', 'branch':
'IT'} {'name': 'Atharva Pawaskar', 'age': 19, 'gender': 'male',
'branch': 'IT', 'DOB': 2005}
{'name': 'Atharva Pawaskar', 'age': 19, 'gender': 'male', 'branch':
'IT'}
{'name': 'Atharva', 'age': 19, 'gender': 'male'}
{'name': 'Atharva', 'age': 19, 'gender': 'male', 'branch': 'IT'}
{'name': 'Atharva', 'age': 19, 'gender': 'male'}
{}
name age gender
branch
Atharva
19 male
IT
name age gender
branch
Atharva
19 male
IT
('name', 'Atharva')
('age', 19)
('gender', 'male')
('branch', 'IT')
{'name': 'Atharva', 'age': 19, 'gender': 'male', 'branch':
'IT'} {'name': 'Atharva', 'age': 19, 'gender': 'male',
'branch': 'IT'}
{'student1': {'name': 'Atharva', 'age': 19, 'gender': 'male',
'branch': 'IT'},
'student2': {'name': 'Aniket', 'age': 18, 'gender': 'male', 'branch':
'IT'}}
Atharva
{'key1': 0, 'key2': 0, 'key3': 0}
IT
```

```
=== Code Execution Successful ===
```