**Python Data types Assignment (Up to Dictionaries)**

1. Add an integer and float. What is the result’s type?

a = 5+5.5

print(a)

print(type(a))

* output:10.5

<class 'float'>

1. Create a string and access its:
   1. First character
   2. Last character
   3. A substring from index 2 to 5

str1 = "saira"

print(str1[0])

print(str1[-1])

print(str1[2:5])

* output: s

a

ira

1. Concatenate two strings and print the result.

s1 = "saira"

s2 = "banu"

print(s1+s2)

* output: sairabanu

1. Define list. What are the difference between List and Tuple.

* List: list are used to store multiple items in a single variable and list is a ordered

In a list we can use a square brackets[]

Difference between list and tuple

* List is a mutable
* Tuple is a immutable

1. Write a programme to print a list in reverse order.

l1 = [1,2,3,4,5]

(l1[::-1])

* Output: [5, 4, 3, 2, 1]

1. Create a tuple of 4 elements. Print the first and last element.

t1 = (10,20,30,40)

print(t1[0])

print(t1[3])

print(t1[-1])

* Output: 10
* 40
* 40

1. Try changing a value in a tuple. What happens?

t1 = (10,20,30,40)

t1[0] = 70

print(t1)

output: TypeError: 'tuple' object does not support item assignment

1. Create a dictionary of 3 students with their marks. Print the dictionary.

d1 = {

    'satvi':90,

    'kavya':70,

    'saira':85

}

print(d1)

* Output: {'satvi': 90, 'kavya': 70, 'saira': 85}

1. Access the marks of one student using their name.

d1 = {

    'satvi':90,

    'kavya':70,

    'saira':85

}

print(d1['kavya'])

* Output: 70

1. Update the marks of an existing student.

d1 = {

    'satvi':90,

    'kavya':70,

    'saira':85,

    'saira':95

}

print(d1)

* Output: {'satvi': 90, 'kavya': 70, 'saira': 95}

1. Can I access a key using a value in a dictionary.

* No,u can’t directly access a key using a value In a dictionary

1. Can I have duplicate values and keys in a dictionary? What happens if I wanted try to duplicate key in a dictionary?

* In dictionary keys are unique,if u try to use the same key more than once, the last value assigned to that key will overwrite the previous one.

1. Print all multiples of 17 using range. Numbers should start from -34 and end below 400.

print(list(range(-34,400,17)))

* Output: [-34, -17, 0, 17, 34, 51, 68, 85, 102, 119, 136, 153, 170, 187, 204, 221, 238, 255, 272, 289, 306, 323, 340, 357, 374, 391]