Python Datatypes Assignment(7-07-25)

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

If we add integer and float the output will be float.

Eg:a=10

B=5.0

Print(a+b)

>>output=15.0

Print(type(a+b))

>>output=<class float>

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

a=”numerical data”

Print(a[0])

Print(a[-1])

Print(a[]2:5)

>>output:n

>>output:a

>>output:mer

1. **Concatenate two strings and print the result.**

X=”hey hi”

Y=”good morning”

Print(x+y)

>>Output:hey hi good morning

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

List is collection of ordered heterogeneous elements.it is mutable data type and it allows item assignment.where as tuple is immutable . it doesnot accepts aitem assignment.we can re assign but cannot change.

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

a=[1,2,3,4,5,6,7]

Print(list[::-1])

>>Output=[7,6,5,4,3,2,1]

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

Tup1=[1,2,3,4]

Print(tup1[0],tup1[3])

>>output:1 4

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

a=(1,2,3)

a[0]=4

print(a)

output:

TypeError: 'tuple' object does not support item assignment

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

dic1{

Ramu:70

Somu:50

Seetha:80

}

Print(dic1)

>>output:

{Ramu:70,Somu:50,Seetha:80}

**9.Access the marks of one student using their name.**

dic1{

Ramu:70

Somu:50

Seetha:80

}

Print(dic1[ramu])

>>output:”ramu”:70

1. **Update the marks of an existing student.**

dic1{

Ramu:70

Somu:50

Seetha:80

}

Print(dic1[somu])=68

>>output={“ramu:70,”somu”:68,”seetha”:80}

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

No, we cant access a key by using a value in dictionary because, values can be duplicate.

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

We can have duplicate values but we cannot have duplicate keys . keys are unique in dictionary.if I try to duplicate key ,It will override the key with last existing key.

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]