Python Programming

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INPUT-OUTPUT STATEMENTS - 1

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Learning Mantra

If you really strong in the basics, then remaining things will become so easy.

Agenda:

1. Introduction
2. raw_input()
3. input()

INTRODUCTION

In this presentation, we will learn about how to read the user provided input and print output to the end user.

The following topics, we are going to discuss as part of this Presentation:

1. raw_input() vs input()
2. Python-3 input() function
3. How to read multiple values from the keyboard in a single line
4. Output statement : print() function
5. ‘sep’ attribute
6. ‘end’ attribute
7. Printing formatted string
8. Replacement Operator : {}

1. raw_input( ) vs input( )

Reading dynamic input from the keyboard:

- In Python 2 the following 2 functions are available to read dynamic input from the keyboard.
    1. raw_input()
    2. input()

1. raw_input():

- This function always reads the data from the keyboard in the form of String Format. We have to convert that string type to our required type by using the corresponding type casting methods.

Eg:

```
x = raw_input("Enter First Number : ")
print(type(x))        ➔<class 'str'>
```

Note: It will always print 'str' type only for any input type.

2. input():

- input() function can be used to read data directly in our required format. We are not required to perform type casting.

Eg:

```
x=input("Enter Value)
type(x)
```

10 ➔ int

"durga“ ➔str

10.5 ➔float

True ➔bool

Note:

- But in Python3 we have only **input()** method and raw_input() method is not available.
- Python3 input() function behavior exactly same as raw_input() method of Python2. i.e., every input value is treated as **str** type only.
- raw_input() function of Python 2 is renamed as input() function in Python3.

Eg:

type(input("Enter value:")) ➔str

Note :

Why input() in Python 3 gave the priority for string type as default return type?

Reason: The most commonly used type in any programming language is **str** type , that's why they gave the priority for **str** type as **default return type of input() function**.

Demo Program 1: Read input data from the Keyboard.

```
x=input("Enter First Number:")
y=input("Enter Second Number:")
i = int(x)
j = int(y)
print("The Sum:",i+j)
```

Output:

```
Enter First Number:100
Enter Second Number:200
The Sum: 300
```

Previous code in simplified form:

```
x=int(input("Enter First Number:"))
y=int(input("Enter Second Number:"))
print("The Sum:",x+y)
```

Output:

```
Enter First Number:100
Enter Second Number:200
The Sum: 300
```

We can write the above code in single line also.

```
print("The Sum:",int(input("Enter First Number:"))+int(input("Enter Second Number:")))
```

Output:

```
Enter First Number:100
Enter Second Number:200
The Sum: 300
```

Demo Program 2: Write a program to read Employee data from the keyboard and print that data.

```
eno=int(input("Enter Employee No:"))
ename=input("Enter Employee Name:")
esal=float(input("Enter Employee Salary:"))
eaddr=input("Enter Employee Address:")
married=bool(input("Employee Married ?[True|False]:"))
print("Please Confirm your provided Information")
print("Employee No :",eno)
print("Employee Name :",ename)
print("Employee Salary :",esal)
print("Employee Address :",eaddr)
print("Employee Married ? :",married)
```

- When you are not providing any value to the married (Just press Enter), then only it considers empty string and gives the False value. In the above example, to read the boolean data, we need to follow the above process.
- But it is not our logic requirement. If you want to convert string to Boolean type, instead of using **bool()** function we need to use **eval()** function**.**

Demo Program 2: Write a program to read Employee data from the keyboard and print that data.

```
eno=int(input("Enter Employee No:"))
ename=input("Enter Employee Name:")
esal=float(input("Enter Employee Salary:"))
eaddr=input("Enter Employee Address:")
married=eval (input("Employee Married ?[True|False]:")) #we
print("Please Confirm your provided Information")
print("Employee No :",eno)
print("Employee Name :",ename)
print("Employee Salary :",esal)
print("Employee Address :",eaddr)
print("Employee Married ? :",married)
```

Any question?

If you try to practice programs yourself, then you will learn many things automatically

Spend few minutes and then enjoy the study

Thank You