

09-18-2024 Python

Unit 2 - Functions

A function is a reusable block of code used to perform certain operations.

Syntax

```
def student(studentName,studentAge):  
    print(studentName,studentAge)  
  
student(studentName="Mahesh",studentAge=32) ## Called as Keyword based function  
student(studentName="Shreyans",studentAge=21)  
student(studentName="Hrishikesh",studentAge=21)
```

Output

```
Mahesh 32  
Shreyans 21  
Hrishikesh 21
```

Functions with Variable Arguments

We can use * to use variable number of arguments in a function.

```
def student(*h): ##Used if we dont have a definite number of arguments prior to call  
    print(h)  
  
student("Mahesh",32,"Hrishikesh",21)
```

Output

```
('Mahesh',32,'Hrishikesh',21)
```

Variable Argument Functions with keyword based arguments

You can use **variableName to store arguments in a dict and call them in your Function. You may also use triple quotes to write documentation within an function and use functionName.**doc** to print the documentation

```
def student(**h): ##Used to have keyword based arguments -- Stores in a dict  
    '''This is a function for keyword based arguments'''  
    print(h)  
student(name="Mahesh",age=21,course="BScIT") ## Called as Keyword based function  
print(student.__doc__)
```

Output

```
{'name':'Mahesh','age':21,'course':'BScIT'}  
This is a fuction for keyboard based arguments
```