

Python Default Parameters

Function parameters can have default values in Python. We can provide a default value to a parameter by using the assignment operator (=). Here is an example.

```
def wish(name, wish="Happy Birthday"):

    """This function wishes the person with the provided message. If
    the message is not provided, it defaults to "Happy Birthday" """

    print("Hello", name + ', ' + wish)

greet("Rohan")
greet("Hardik", "Happy New Year")
```

Output

```
Hello Rohan, Happy Birthday
Hello Hardik, Happy New Year
```

In this function, the parameter `name` does not have a default value and is required (mandatory) during a call.

On the other hand, the parameter `wish` has a default value of `"Happy Birthday"`. So, it is optional during a call. If an argument is passed corresponding to the parameter, it will overwrite the default value, otherwise it will use the default value.

Important Points to be kept in mind while using default parameters:

- Any number of parameters in a function can have a default value.
- The conventional syntax for using default parameters states that once we have passed a default parameter, all the parameters to its right must also have default values.
- In other words, non-default parameters cannot follow default parameters.

For example, if we had defined the function header as:

```
def wish(wish = "Happy Birthday", name):  
    ...
```

We would get an error as:

```
SyntaxError: non-default argument follows default argument
```

Thus to summarise, in a function header, any parameter can have a default value unless all the parameters to its right have their default values.