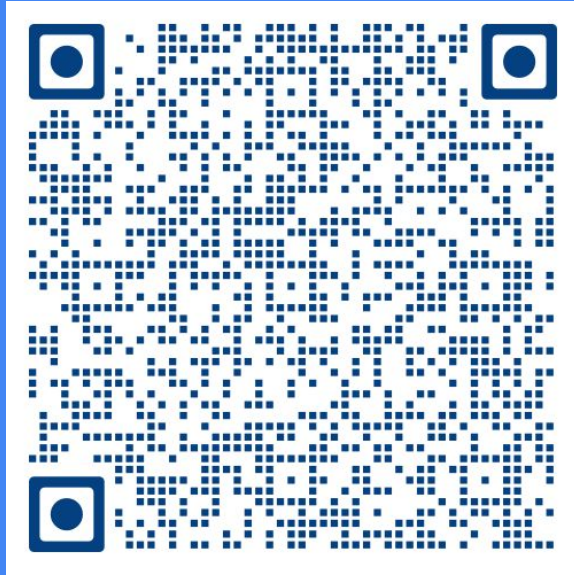


Python Course

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Functions



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What is a Python function?

Python Function

A Python Function is a chunk of code that is written to do certain actions, usually many times.

Python Function

Advantages:

- **Cleaner codes**
- **Repetition reduction**
- **Developing a program will consume less time**

SOME EXAMPLES

Important questions

- **Am I familiar with all python functions?**
- **Is there anyone all over the world who knows all python functions?**
- **Is the number of Python functions limited?**

So, how to become familiarized a new python function?

help()

`help()` is also a function that helps you understand other functions.

What `help()` shows:

- **An English description of a function (known as Docstrings)**
- **Function's header / hyperparameters**

SOME EXAMPLES

def

The number of Python functions is unlimited since people use `def` to define their own functions.

def

```
def myfunction(x):
```

```
    """Takes in a number n, and returns the half of n"""
```

```
    return n/2
```

Assignment:

Define a function that takes in weight and height, and returns BMI.

Tip: $BMI = \text{Weight (kg)} / [\text{height (m)}]^2$

What a function without return does?

It will return **None**

So, why should people call it?

Assignment:

Without using return, define a function that prints multiplication by 10.

Function in function

A Python Function can take in another function.

AN EXAMPLE

Default arguments

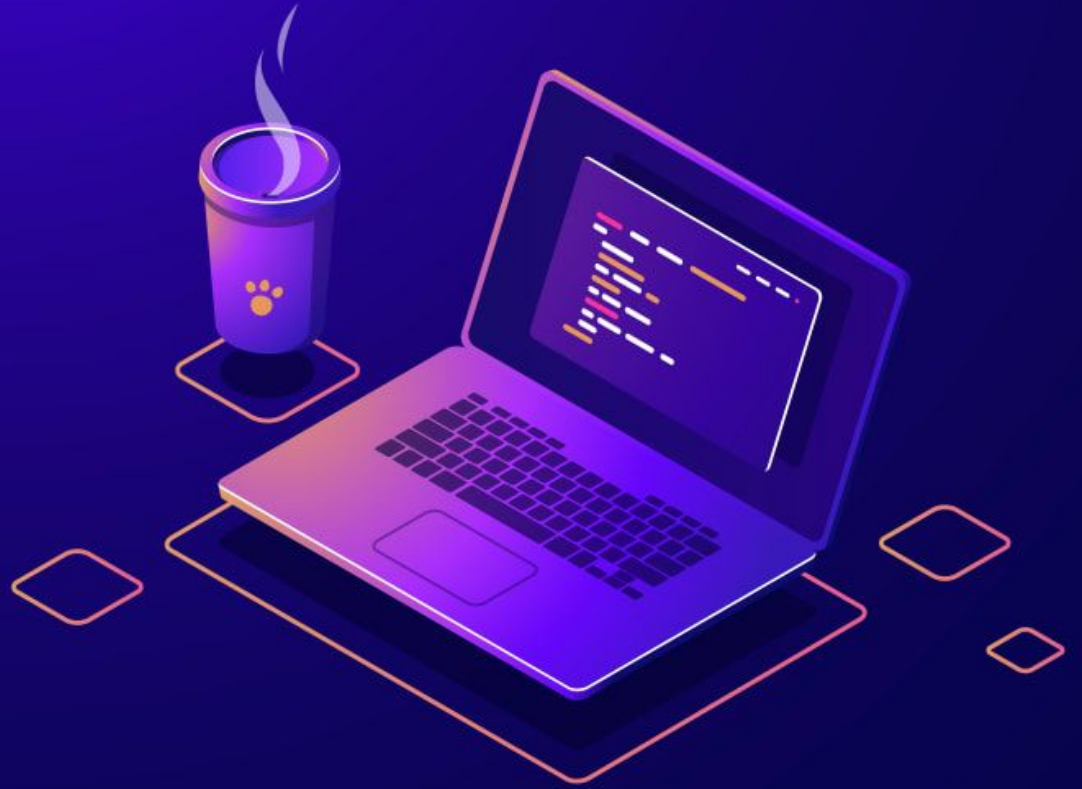
- **Builtin functions often have default arguments, like sep and end in print function.**
- **You can also define default arguments in a function using '='.**

AN EXAMPLES

Assignment:

Do the last assignment in a way that takes in “1 meter” when the input is not defined.

Thanks!



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