به نام خدا

hello_world.py

Python Programming with Algorithmic Approach Course

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Teacher

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Code is poetry written for machines!

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Functions

A function is a block of code which only runs when it is called.
You can pass data, known as parameters, into a function.
A function can return data as a result.

- Creating a Function Syntax

```
def func_name(args):
  # code
  return output
```

- Calling a Function Syntax

```
func_name(args)
```

- Example

```
def calc_rectangle_area(length, width):
    return length * width
area = calc_rectangle_area(20, 10)
```

Advantages of Using Functions

Modularity
Building blocks of modularity
Break down code for clarity
Each function has a specific task

Reusability
Cornerstone of efficient programming
Encourages code reusability
Example: calculate_rectangle_area for various shapes

Readability
Enhances code readability
Descriptive function names convey intent
Improves overall code narrative

Maintainability
Simplifies code maintenance
Targeted changes in individual functions
Minimizes unintended consequences

References

https://www.w3schools.com/python/python_functions.asp

https://en.wikipedia.org/wiki/Functional_programming

THANKS!

Do you have any questions?

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