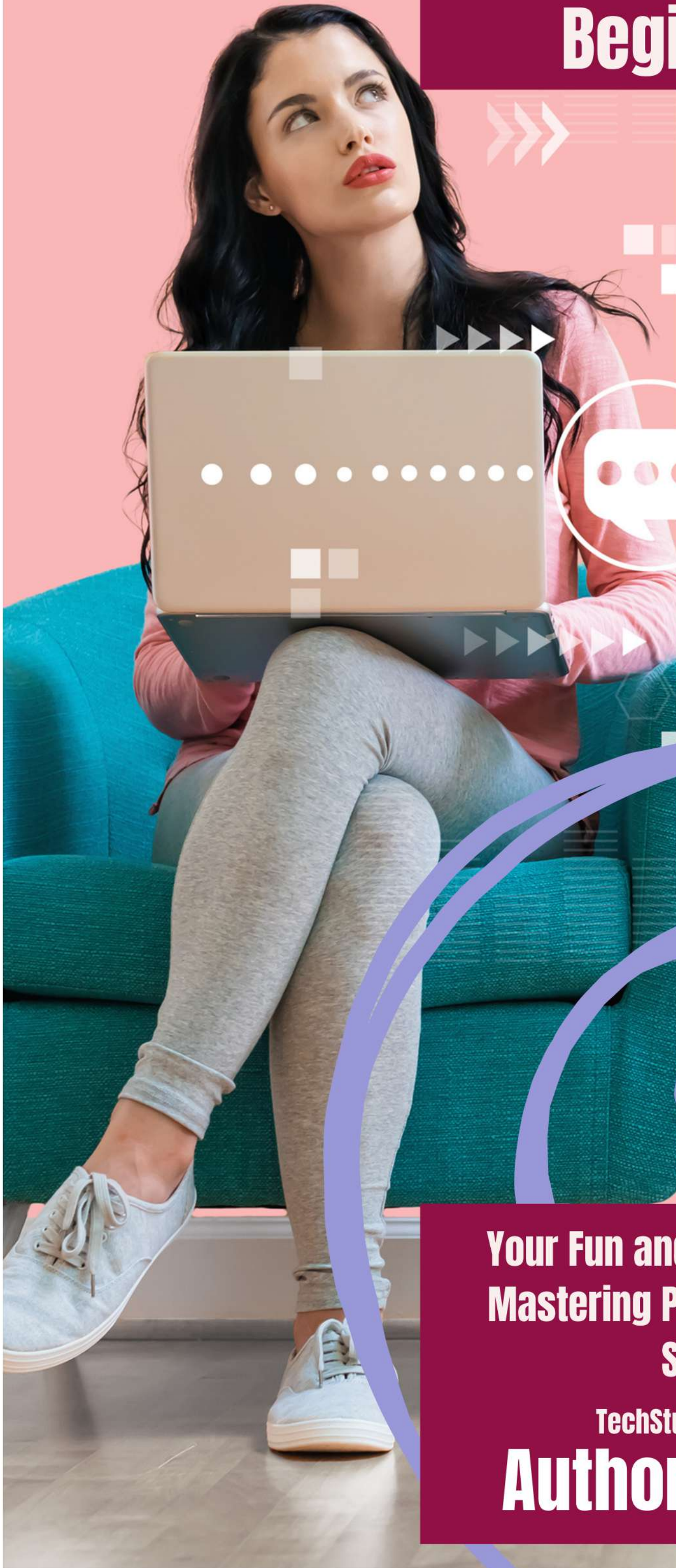


# Python Language Basics for Beginners



  
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**Your Fun and Easy Guide to  
Mastering Python Step-by-  
Step!**

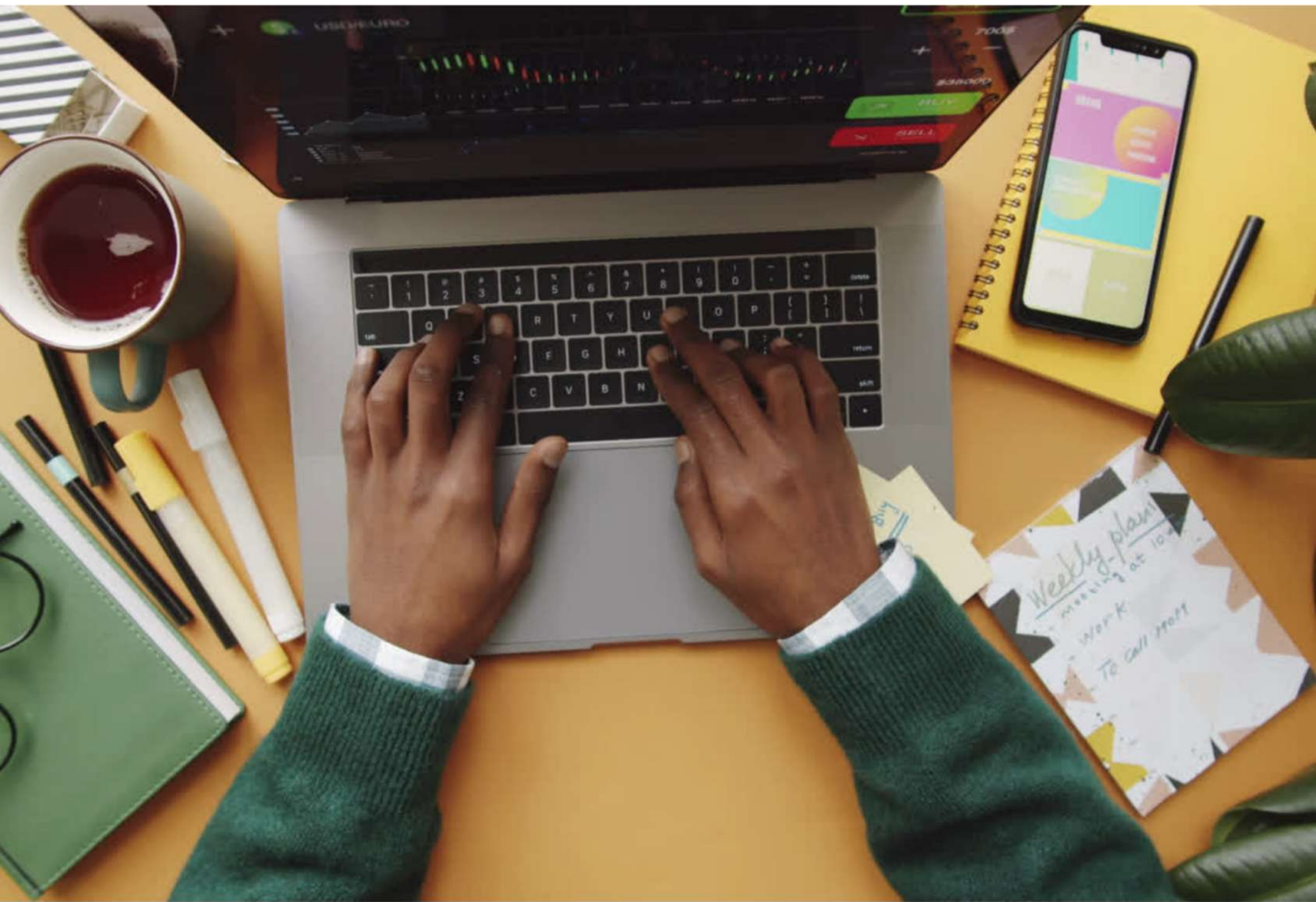
TechStudio24-365

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# Python Language Basics for Beginners

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**This interactive eBook will help you learn Python quickly and effectively with engaging examples and exercises.**



# Introduction: Why Learn Python?

*Python is one of the easiest and most versatile programming languages, used in web development, AI, data science, and more. Fun fact: Python was named after the comedy group Monty Python! Interactive Task: Before we dive in, think about why you want to learn Python. Write down your goals in the provided space or in a notebook.*



# Chapter 1:

## Getting Started with Python

*What You Need:* – Python installed on your computer (download from [python.org](https://www.python.org)). – A code editor like PyCharm or VSCode. *How to Install Python:* Visit <https://www.python.org/downloads/> and follow the instructions. *Interactive Task:* Test your setup by typing `print("Hello, World!")` in Python.

### Test your installation:

*After following the steps above open a new project file in Python and type the following word below;*

```
print("Hello, World!")
```

*It should appear as seen below in your terminal;*

*Hello, World*



# Chapter 2:

## Understanding the Basics

Variables are containers for storing data. Common data types include Strings ("Hello"), Integers (10), Floats (3.14), and Booleans (True/False). Example: name = "Philip" age = 25 is\_learning = True

Interactive Task: Declare a variable that stores your name and print it.

Example of Variables

```
name = "Philip"
```

```
age = 25
```

```
is_learning = True
```

```
print(name, age, is_learning)
```



# Chapter 3:

## Writing Python Code

### Input and Output:

Use `print()` to display messages and `input()` to take user input. Example: `name =`

```
input("What is your name? ") print("Hello, " + name + "!
```

```
Welcome to Python.")
```

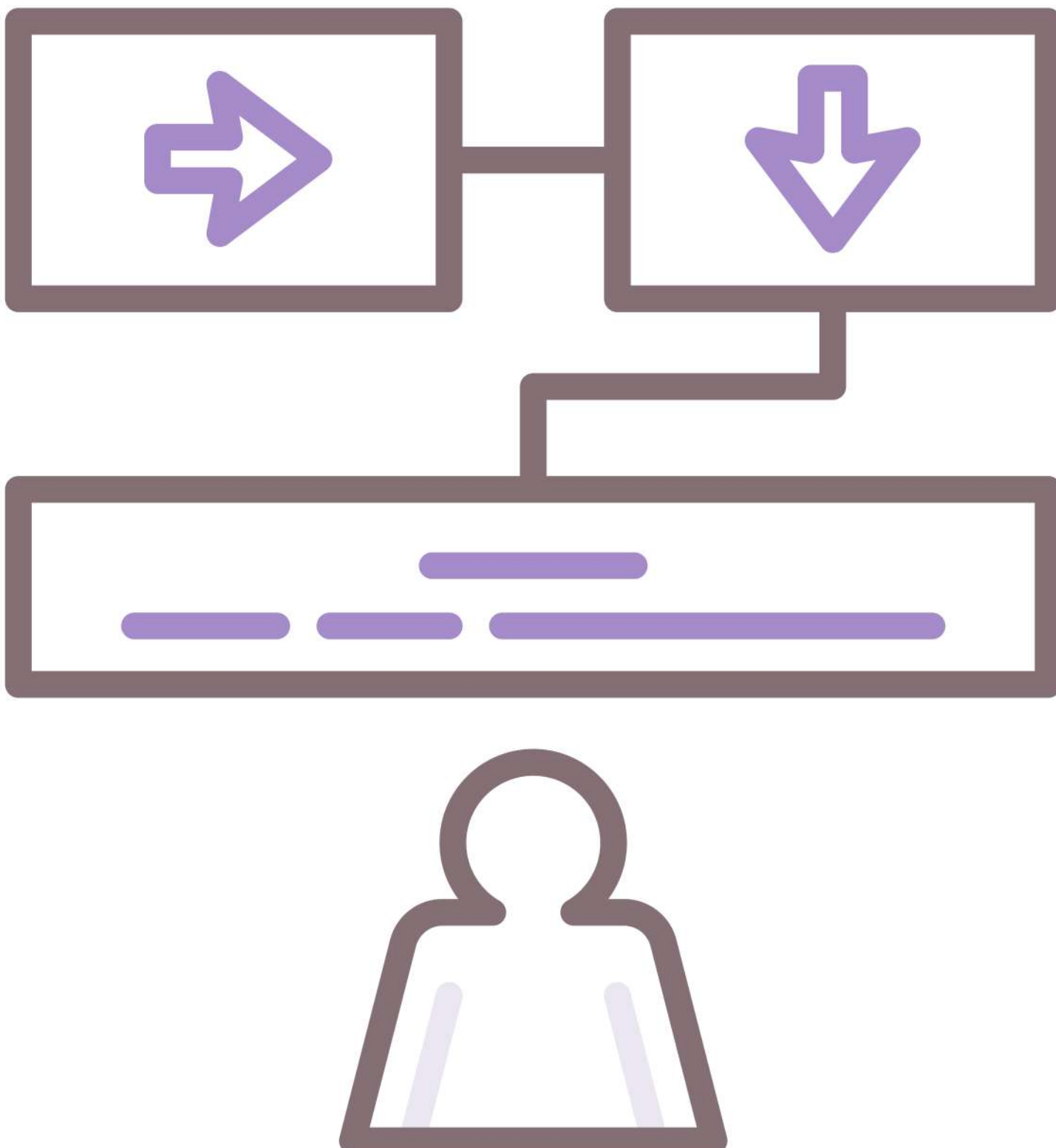
 Interactive Task: Modify

the code above to ask for your age and print a custom message.

### Input and Output Example

```
name = input("What is your name? ")
```

```
print("Hello, " + name + "! Welcome to Python.")
```



# Chapter 4:

## Control Flow

If-Else Statements: Control the flow of your program with conditions. Example: `age = int(input("Enter your age: "))` `if age < 18: print("You are a minor.")` `else: print("You are an adult.")` Interactive Task: Write a program that checks if a number is odd or even.

### If-Else Example

```
age = int(input("Enter your age: "))
if age < 18:
    print("You are a minor.")
else:
    print("You are an adult.")
```





# Chapter 5:

## Loops in Python

For Loop: Repeat tasks with a `for` loop. Example: `for i in range(5): print("This is line", i)` While Loop: Use a `while` loop for unknown repetitions. Example: `count = 0 while count < 5: print("Count is", count) count += 1` Interactive Task: Create a loop that prints numbers from 1 to 10.

### For Loop Example

```
for i in range(5):  
    print("This is line", i)
```

### While Loop Example

```
count = 0  
while count < 5:  
    print("Count is", count)  
    count += 1
```





# Chapter 6:

## Functions in Python

Functions help organize and reuse code. Example: `def greet(name): return "Hello, " + name + "!"`  
`print(greet("Philip"))` Interactive Task: Write a function that adds two numbers.

### Function Example

```
def greet(name):  
    return "Hello, " + name + "!"  
print(greet("Philip"))
```

### Quick Recap and Practice Quiz

What You Learned: - Variables and Data Types -

Input/Output - If-Else Statements - Loops - Functions

Quiz: 1. What function is used to display text in Python? 2.

Write a Python program that checks if a

number is greater than 10. 3. Create a function that multiplies two numbers.

### Next Steps and Closing

Congratulations! You've learned the basics of Python. Next

Steps: - Build a simple calculator. - Create

a to-do list app. Bonus Resource: Scan the QR code for a free Python cheat sheet. Want to dive

deeper? Be on the look out for my advanced eBook,

'Mastering Python Projects.'