

Chapter 1: The `print()` Statement

The first step to making Python talk to you.

Introduction

Before we dive into code, let's start with a little story.

Imagine walking up to a robot and saying, "Hey!"

And the robot replies: "Hello, world!"

That's what we're going to do—but with Python.

This chapter is all about `print()`—how Python shows output on the screen.

By the end, you'll know how to talk to Python—and make it talk back.

Running Your First Program

```
1 | print("Hello, world!")
```

Output:

```
1 | Hello, world!
```

→ This simple line tells Python to print a message to your screen.

What Is `print()`?

`print()` is a built-in function in Python.

It tells Python to display something on the screen.


Syntax:

```
1 | print(thing_to_display)
```

- Use quotes to print text.
 - Use commas to print multiple things.
 - Parentheses are required in Python 3.
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Understanding Python Syntax

Python is clean and simple, but it has rules:

-  `print()` is correct

- ❌ `Print()` is wrong (Python is case-sensitive)

Good Example:

```
1 | print("Python is awesome!")
```

Common Errors:

```
1 | Print("Hello")      # Wrong: capital P
2 | print("Hello)        # Wrong: missing quote
3 | print "Hello"        # Wrong: missing parentheses (Python 2 style)
```

Printing Numbers

You can print numbers directly:

```
1 | print(42)
```

Output:

```
1 | 42
```

→ Numbers don't need quotes unless you want them treated as text.

Printing Multiple Things

You can print multiple items using commas:

```
1 | print("My name is", "Naseem", "and I am", 25, "years old.")
```

Output:

```
1 | My name is Naseem and I am 25 years old.
```

→ Python adds spaces automatically between items.

Printing with Quotes or Symbols

To include quotes **inside** strings, use the backslash (`\`) escape character.

```
1 | print("She said, \"Python is cool!\"")
```

Output:

```
1 | She said, "Python is cool!"
```

Other escape sequences:

- `\n` → new line
- `\t` → tab

Comments in Python

Comments are ignored by Python. They help humans understand code.

Single-line comment:

```
1 | # This is a comment
2 | print("Hello")
```

Multi-line comment (docstring):

```
1 | """
2 | This program introduces me to the world.
3 | It uses print() to display information.
4 | """
5 | print("Done!")
```

Python Indentation Rules

Indentation shows structure in Python. It's not optional.

```
1 | if True:
2 |     print("This is indented")
```

→ Indentation must be consistent (usually 4 spaces).

If you forget, Python throws an `IndentationError`.

Reflection Prompt

Try these:

- What happens if you forget the closing quote?
 - What if you use `Print()` instead of `print()`?
 - What if you omit parentheses?
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Mini Quiz or Challenge







1. What will this print?

```
1 | print("5 + 3 =", 5 + 3)
```

2. Write a line of code that prints your favorite hobby.

3. What happens if you forget the parentheses in `print`?

Tips and Common Mistakes

-  Always use quotes for text
 -  Use `print()` with parentheses (Python 3 style)
 -  Use commas to print multiple items
 -  Add comments using `#`
 -  Don't use `Print()` with a capital P
 -  Don't forget to close quotes or parentheses
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Summary Recap

- `print()` displays output in Python
 - Use quotes to print text
 - Numbers don't need quotes
 - Escape characters like `\` and `\n` handle special formatting
 - Use comments (`#` or `"""`) to explain your code
 - Python requires correct indentation
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Mini-Project Exercise

Create a program that prints a short introduction about yourself.

Requirements:

- At least 3 `print()` statements
- Include name, age, and a fun fact
- Add a comment at the top

Example:

```
1 # This program introduces me
2
3 print("My name is Anu.")
4 print("I am 15 years old.")
5 print("I love solving puzzles!")
```

Practice Exercises

Basic

1. Print your favorite food
2. Print the result of `10 + 20`
3. Add a comment explaining your program
4. Use `print()` to show your name and age
5. Print a sentence that includes double quotes
6. Print a number without using quotes
7. Print your name and school on two lines using `\n`

Intermediate

- A1. Print a welcome message using text and math (`2025 - birth year`)
 - A2. Write a mini program with 3 print statements and one comment
 - A3. Print lyrics using quotes inside quotes
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