



# Python Comments - Lecture

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## What is a Comment in Python?

A **comment** in Python is a **note or message written in your code that the computer ignores**. It's only for **you** (the programmer) or for **others reading your code**.

Think of comments like **sticky notes** you leave in a notebook — they help you remember what your code is doing.

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## Why Do We Use Comments?

- ✓ To explain what your code does
  - ✓ To make your code easier to read
  - ✓ To help you remember what you did
  - ✓ To help others understand your code
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## Types of Comments in Python

### 1 Single-Line Comments

These are short comments written on **one line**.

👉 Starts with a **#** symbol.

📌 **Example:**

```
# This is a single-line comment  
print("Hello!") # This prints Hello!
```

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### 2 Multi-Line Comments

Sometimes, you need to write longer comments over **many lines**.

👉 You can use **triple quotes** `'''` or `"""`.

📌 **Example:**

```
"""  
This is a multi-line comment.  
It can be written on several lines.  
The computer will ignore it.  
"""  
print("Welcome to Python!")
```

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## 👤 Real-Life Example

Let's say you wrote a program that adds two numbers. A comment can explain it like this:

```
# This program adds two numbers  
a = 5  
b = 3  
sum = a + b  
print(sum) # This will print 8
```

Isn't that easier to understand?

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## 😊 Fun Fact!

Python ignores comments when running your code. So, even if you write a story in comments, Python will skip it!

```
# Once upon a time, in the land of Python...  
# There lived a happy variable named 'x'!  
x = 10  
print(x)
```

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## 🚧 What Happens Without Comments?

Imagine a math notebook with **no headings or explanations** — only numbers. Hard to understand, right? That's how code looks without comments.

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## Let's Practice!

### ♦ Task 1:

Write a Python program to print your name and add comments to explain each line.

```
# This program prints my name  
print("My name is Azhar")
```

### ♦ Task 2:

Write a program that adds 10 and 20, and write comments for each line.

```
# This program adds two numbers  
a = 10 # First number  
b = 20 # Second number  
sum = a + b # Add the numbers  
print(sum) # Print the result
```

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## Challenge for Smart Students!

Write a small program with **both single-line and multi-line comments** to explain what your program does.

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## Important Tips

- ♦ Always write comments to explain **what** your code is doing.
- ♦ Don't write obvious things like:

```
a = 5 # Assign 5 to a ❌ (too obvious)
```

Instead, write:

a = 5 # Number of apples in the basket ✓

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## Summary

Thing	What it does
#	Starts a single-line comment
' ' ' or " " "	Starts a multi-line comment
Comments	Help explain your code to humans
Python	Ignores comments when running code

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## Ending Note

 **Good coders write good comments!**

It makes your code look clean, smart, and easy to understand.

So always remember:

**“Write code for computers, write comments for humans!”**

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