

Course  
&  
Test Series

First Python Program, Console and Python Shell

First Python Program, Console and Python Shell

print(...)

- print is a built-in Python function.
- It is used to display information (text, numbers, etc.) on the screen.
- The print function takes what's inside the parentheses () and shows it in the output.

Example:

```
# This is my first Python program  
print("Hello, World!")
```

Output:

"Hello, world!"

Explanation Line by Line:

Line 1 → Comment

```
# This is my first Python program
```

- The # symbol is used to write comments in Python.
- Anything after # is ignored by the Python interpreter.
- Comments are used to explain your code for humans – not for the computer.

Example:

```
# This is a comment  
# Comments do not affect the program
```

Line 2 → The print() Function

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

- print() is a built-in Python function used to display output on the screen.
- The text inside the quotation marks (" " or ' ') is called a string.
- So "Hello, World!" is a string literal that gets displayed.

How it works:

- Python reads print("Hello, World!")
- It passes the text "Hello, World!" to the print() function.
- The function sends it to the console (the output screen).



CBSE



ICSE



NTSE



Banking &  
Insurance



Central Govt.  
Service



State Govt.  
Services



LAW  
Entrance



MBA  
Entrance



Railways & Metro  
Services

...many more

abhyasonline.in



Course  
&  
Test Series

First Python Program, Console and Python Shell

How to Run Your First Python Program

You can run Python code in 3 main ways

Method 1 – Using Python IDE (like IDLE, Thonny, or PyCharm)

1. Open IDLE (comes with Python installation).
2. Click on File → New File
3. Type your code:
4. `print("Hello, World!")`
5. Save it as `hello.py`
6. Run → Run Module (F5)
7.  Output appears in the Python shell:
8. Hello, World!

Method 2 – Using Command Prompt / Terminal

1. Open Command Prompt (Windows) or Terminal (Mac/Linux).
2. Navigate to your file location using:
3. `cd path_to_your_folder`
4. Run the program by typing:
5. `python hello.py`
6.  Output:
7. Hello, World!

Method 3 – Using an Online Python Interpreter

If you don't have Python installed, you can use websites which have online python interpreter:

Just paste this code and click "Run" 🖱️  
`print("Hello, World!")`

Output:

Hello, World!

Adding More to Your First Program

You can extend your "first program" to make it interactive 🖱️

Example:

```
# Ask for user input  
name = input("Enter your name: ")
```

```
# Print a greeting  
print("Hello,", name, "welcome to Python programming!")
```

Sample Output:

```
Enter your name: Aarav  
Hello, Aarav welcome to Python programming!
```

 CBSE

 ICSE

 NTSE

 Banking & Insurance

 Central Govt. Service

 State Govt. Services

 LAW Entrance

 MBA Entrance

 Railways & Metro Services

...many more

abhyasonline.in

**Course  
&  
Test Series**

**First Python Program, Console and Python Shell**

-  **CBSE**
-  **ICSE**
-  **NTSE**
-  **Banking & Insurance**
-  **Central Govt. Service**
-  **State Govt. Services**
-  **LAW Entrance**
-  **MBA Entrance**
-  **Railways & Metro Services**
- ...many more**

**abhyasonline.in**

**Explanation:**

- input() takes user input as a string.
- print() then displays it with a custom message.

**What is a Console?**

A console (also called a *command line* or *terminal*) is a window where you can type commands and run programs directly by writing text.

For example:

- In Windows, it's called **Command Prompt (cmd)** or **PowerShell**.
- In macOS and Linux, it's called **Terminal**.

You can use the console to:

- Run Python programs
- Navigate folders (using commands like cd, dir, ls)
- Install packages (pip install numpy)
- Execute system commands

**What is a Python Shell? (REPL)**

The **Python Shell** (or **Python Interactive Shell**) is a special console made just for Python.

It opens when you type python or python3 in your console (if Python is installed).

You'll see something like this:

```
Python 3.12.1 (default, Oct 24 2024, 10:00:00)
```

```
>>>
```

The >>> means Python is ready to take a command.

You can **type and run Python code one line at a time** here.

Example:

```
>>> print("Hello, world!")
```

```
Hello, world!
```

```
>>> 5 + 3
```

```
8
```

```
>>> name = "John"
```

```
>>> print("Hi", name)
```

```
Hi John
```

**Difference Between Console and Python Shell**

Feature	Console	Python Shell
Purpose	Runs all types of commands (system, program, Python, etc.)	Runs only Python code
Start it by	Opening Command Prompt/Terminal	Typing python in the console
Example	cd Documents or pip install pandas	print("Hello!") or 2 + 3

**Course  
&  
Test Series**

**First Python Program, Console and Python Shell**

Feature	Console	Python Shell
command		
Output	Depends on command	Shows Python output immediately

 **CBSE**

 **ICSE**

 **NTSE**

 **Banking & Insurance**

 **Central Govt. Service**

 **State Govt. Services**

 **LAW Entrance**

 **MBA Entrance**

 **Railways & Metro Services**

**...many more**

**abhyasonline.in**

**Example: Running Python from Console**

Let's say you have a file called test.py that contains:

```
print("Hello from a Python file!")
```

You can run it from the console like this:

```
C:\Users\You> python test.py
```

Hello from a Python file!

**Summary**

- **Console** = General command line tool for your computer.
- **Python Shell** = Special interactive environment to test and run Python code quickly.
- You can open the **Python Shell** from the **console** by typing python.
- You can also use the console to run **Python files** and **install libraries**.

**Assignment**

**Ques 1: What does the print() function do in Python?**

- A) Takes input from the user
- B) Displays output on the screen
- C) Runs the program
- D) Saves data to a file

**Ques 2. What symbol is used to write a comment in Python?**

- A) //
- B) <!-- -->
- C) #
- D) /\* \*/

**Ques 3. What is the output of the following code?**

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

- A) Hello, world!
- B) "Hello, World!"
- C) Hello, World!
- D) ('Hello, World!')

**Ques 4. What does the input() function do?**

- A) Displays output
- B) Reads user input as a string

Course  
&  
Test Series

First Python Program, Console and Python Shell

- C) Defines a variable
- D) Terminates the program

Ques 5. What is the correct statement about the Python Shell (REPL)?

- A) It can execute both Python and system commands
- B) It executes only Python code line by line
- C) It is used only for file execution
- D) It cannot display output immediately

Ques 6. Which of the following commands is used to run a Python file named hello.py from the console?

- A) run hello.py
- B) execute hello.py
- C) python hello.py
- D) start hello.py

Ques 7. What is the main difference between the Console and Python Shell?

- A) Console is for Python only; Python Shell is for all commands
- B) Console runs all types of commands, Python Shell runs only Python code
- C) Both are the same thing
- D) Console cannot open the Python Shell

 CBSE

 ICSE

 NTSE

 Banking & Insurance

 Central Govt. Service

 State Govt. Services

 LAW Entrance

 MBA Entrance

 Railways & Metro Services

...many more

abhyasonline.in