

python Day 1 (Beginner)

Topic:- printing, Debugging, String Manipulation & variables

(1) Introduction to python (Output - The print() function)

The print() function is the most basic and most frequently used function in python

It allows the Computer to display information on the Screen

Syntax

```
print("your message here")
```

Important points:-

- (*) Anything inside quotes is treated as text (called a String).
- (*) you can use Single (" ") or double (" ") quotes
- (*) python always requires parentheses with print().

Examples:-

```
print("Helloworld")
```

```
print("python is fun")
```

(2) String Manipulation

String manipulation means modifying text or changing how it appears.

(2.1) New line character (\n)

\n tells python to move to a new line
Example :-

```
print("Hello\nworld")
```

Output :-

Hello
world

Meaning :-

- Python prints "Hello"
- Then moves to new line
- Then prints "world"

(2.2) String Concatenation

Concatenation means joining two or more strings together

Example

```
print("Hello" + " " + "Mohit")
```

Why the space?

Strings don't add spaces automatically,
So " " is used

Important Rules:-

- Only strings can be concatenated
- if you try "Hello" + 5 it gives an error
because 5 is an integer

(3) Debugging Basics

Debugging means finding and fixing errors in code

Common Beginner Error

(1). Missing quotes

```
print(Hello)
```

Error Hello is not in quotes

(2). Missing parentheses

```
print "Hello"
```

python 3 requires parentheses

(3) Spelling mistake

(4) Indentation mistakes

python is indentation sensitive

wrong indentation causes Indentation Error

Debugging Rule:-

Always read the last line of the error message - it tells the real reason for the error.

(4) Taking User Input - The input() function

The input() function pauses the program and waits for the user to type something

Syntax

```
input("Question or prompt")
```

Example

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

```
print("Hello" + " " + name)
```


Important Notes:-

- input() always returns a String
- If you want numbers later, you must convert them

(5) Variables in Python

variable are containers used to store data

you can imagine them like labelled boxes where you keep information

Syntax

Variable name = value

Example

age = 20

City = "Delhi"

Rules for naming Variables:-

- (1) Cannot have Spaces
user name (✓)
user name (x)
- (2) Cannot start with a number
name1 (✓)
1name (x)
- (3) Case-Sensitive
Name and name are different
- (4) Use meaningful names
Student age (✓)
Sa (x)

Reassigning / Reassigning variable

Page No. _____
Date _____

python variable can change type anytime (dynamic typing)

x = 10

x = "ten"

this is allowed

(*)(*) Mini project - Band Name Generator (*)(*)

(*) This Small Project uses Everything learned
So for:-

- print()
- input()
- variables
- string joining

Concepts Used

- Asking questions using input()
- Storing answers in variables
- printing the final combined string

Key Concepts you must Remember (Day-1)

- Programming = giving instructions to the computer in a language it understands.
- print → Helps to check your work.
- input → always returns a string.
- Variables make your code useful and reusable.
- Debugging is not failure it is a part of learning process.