



**TOPSTechnologies**

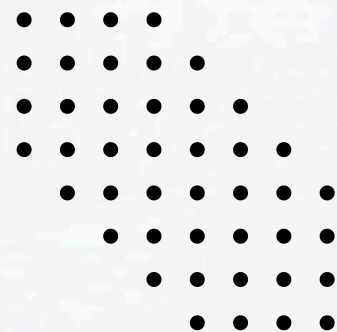
# **Reading Data from Keyboard**

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### *Que 1*

The input() function in Python is used to read user input from the keyboard. It allows the program to pause execution and wait for the user to type something, which is then returned as a string.

#### Basic Usage :

```
name = input("Enter your name: ")  
print("Hello, " + name + "!")
```

#### Explanation:

- The input() function displays the prompt message (optional).
- It waits for the user to type something and press Enter.
- The entered value is stored as a string

#### Reading Numeric Input

Since input() always returns a string, you need to convert it to a number if necessary:

```
age = int(input("Enter your age: ")) # Converts input to an integer  
print("You are", age, "years old.")
```

#### Handling Multiple Inputs

You can read multiple values using split():

```
x, y = input("Enter two numbers separated by space: ").split()  
x, y = int(x), int(y) # Convert to integers  
print("Sum:", x + y)
```

### Input Validation

You should always validate user input to avoid errors:

```
while True:
    try:
        num = int(input("Enter a number: "))
        break # Exit loop if input is valid
    except ValueError:
        print("Invalid input! Please enter a number.")
```

### Que. 2

In Python, user input from the `input()` function is always read as a string. To use it as a number or another data type, you must explicitly convert it.

#### 1. Converting to Integer (int)

If the user is expected to enter a whole number, convert the input using `int()`.

```
age = int(input("Enter your age: "))  
print("You will be", age + 1, "next year.")
```

#### 2. Converting to Floating Point (float)

For decimal values, use `float()`.

```
height = float(input("Enter your height in meters: "))  
print("Your height is", height, "meters.")
```

#### 3. Converting to Boolean (bool)

By default, Python considers empty strings as `False` and non-empty strings as `True`.





## **Advance Python Programming**

```
user_response = bool(input("Do you want to continue? (Press Enter for  
No, type anything for Yes): "))  
print("User response:", user_response)
```