



Computing Fundamentals using Python

SUBJECT CODE : UQ25CA151A

Samyukta D Kumta
Computer Applications

Formatted Input in Python

Input is always taken as a string using the `input()` function. You often need to convert it to other types (int, float, list, etc.).

1. Read string

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

2. Read integer

```
age = int(input("Enter your age: "))  
print("Next year you will be", age + 1)
```

3. Multiple inputs in one line

```
a, b = map(int, input("Enter two numbers: ").split())  
print("Sum:", a + b)
```

4. List from input

Syntax:

```
values = list(map(datatype, input().split()))
```

We can use for any datatype → int, float, str, complex, etc.

- `split()` → breaks the input string into tokens.
- `map()` → applies conversion to each token.
- `List()` → stores all values in a list.

```
nums = list(map(int, input("Enter numbers separated by space: ").split()))  
print("Numbers are:", nums)
```

Same applied for other datatypes

- `decimals = list(map(float, input("Enter decimal numbers: ").split()))`
`print(decimals)`
- `words = list(map(str, input("Enter words: ").split()))`
`print(words)`
- `cnums = list(map(complex, input("Enter complex numbers: ").split()))`
`print(cnums)`
- `pairs = [(int(x), float(y)) for x, y in (item.split(',') for item in input("Enter int,float pairs: ").split())]`
`print(pairs)`

Practice Programs

Write python code to read input: space-separated Celsius values

```
celsius = list(map(float, input("Enter temperatures in Celsius: ").split()))
```

```
fahrenheit = [(c * 9/5) + 32 for c in celsius]  
print("Temperatures in Fahrenheit:", fahrenheit)
```

Practice Programs

- Write a Python program that accepts marks of 5 subjects (space-separated integers) from the user and prints the average marks.
- Complex Numbers for Circuit Simulation. Read 2 complex numbers from the user and print their sum.
- Take 3 coordinate points as input in the format x,y (space-separated) and store them in a list of tuples.
- Employee Data Take input in the format name,salary (space-separated) for 3 employees and store it in a dictionary.



PES
UNIVERSITY

CELEBRATING 50 YEARS

THANK YOU

Samyukta D Kumta

Department of Computer Applications

samyuktad@pes.edu