In Python, a function with arguments allows you to pass data into the function for processing. Here’s the basic syntax:

def function\_name(argument1, argument2):

# Function body

result = argument1 + argument2

return result

# Calling the function with arguments

output = function\_name(5, 10)

print(output) # Output: 15

**Types of Function Arguments**

Python supports different types of function arguments:

1. **Positional Arguments** (Order matters)
2. def greet(name, age):
3. print(f"Hello, my name is {name} and I am {age} years old.")
4. greet("Alice", 25)
5. **Default Arguments** (Provide default values)
6. def greet(name="John"):
7. print(f"Hello, {name}!")
8. greet() # Output: Hello, John!
9. greet("Alice") # Output: Hello, Alice!
10. **Keyword Arguments** (Call function using parameter names)
11. def describe\_pet(animal, name):
12. print(f"I have a {animal} named {name}.")
13. describe\_pet(name="Buddy", animal="dog")
14. **Arbitrary Arguments (\*args)** (Pass multiple values as a tuple)
15. def add\_numbers(\*numbers):
16. return sum(numbers)
17. print(add\_numbers(1, 2, 3, 4, 5)) # Output: 15
18. **Arbitrary Keyword Arguments (\*\*kwargs)** (Pass multiple key-value pairs as a dictionary)
19. def person\_info(\*\*info):
20. for key, value in info.items():
21. print(f"{key}: {value}")
22. person\_info(name="Alice", age=30, city="New York")