**Default Parameters**

**Definition:**

* Default parameters allow you to define functions with default values for parameters.
* If an argument for a parameter with a default value is not provided, the default value is used.

**def function\_name(parameter1=default\_value1, parameter2=default\_value2):**

**# Function body**

**Multiple Arguments**

**Variable-length Arguments:**

* Used when you don’t know the number of arguments that will be passed to the function.
* There are two types: \*args and \*\*kwargs.

**Using args:**

* Allows a function to accept any number of positional arguments.
* args is a tuple of arguments.

**def function\_name(\*args):**

**for arg in args: print(arg)**

**Using kwargs:**

* Allows a function to accept any number of keyword arguments.
* kwargs is a dictionary of arguments.

**def function\_name(\*\*kwargs):**

**for key, value in kwargs.items():**

**print(f"{key}: {value}")**

**Python Try, Exception Handling & Lambda Functions**

**Exception Handling**

Allows you to handle errors gracefully without crashing the program.

**Try-Except Block**:

try:

# Code that may raise an exception except

ExceptionType:

# Code to handle the exception

**Finally Block**:

The finally block executes regardless of whether an exception occurs or not.

try:

# Code that may raise an exception except

ExceptionType:

# Code to handle the exception

finally:

# Code to execute no matter what

**Lambda Functions**

* A lambda function is a small anonymous function defined using the lambda keyword.
* Typically used for short, simple functions.

**lambda arguments: expression**