**EXERCISE-2**

1. **Write a program to define function with multiple return values**

def name():

return "john","armin"

print(name())

name\_1,name\_2=name()

print(name\_1,name\_2)

**Output:**

('john', 'armin')

john armin

1. **Write a program to define function using default arguments**

# Function with default arguments

def greet(name="Guest", message="Welcome to Python programming!"):

print(f"Hello {name}, {message}")

# Calling the function in different ways

greet() # Uses both default arguments

greet("Alice") # Uses default message

greet("Bob", "Hope you have a great day!") # Overrides both defaults

**output:**

Hello Guest, Welcome to Python programming!

Hello Alice, Welcome to Python programming!

Hello Bob, Hope you have a great day!

**Explanation:**

* name="Guest" and message="Welcome to Python programming!" are **default arguments**.
* If no value is passed for those parameters when calling the function, the default values will be used.

1. **Write a program to find the length of the string without using any library functions**

my\_string="Hi will"

print("The string is:")

print(my\_string)

my\_counter=0

for i in my\_string:

my\_counter=my\_counter+1

print("The length of the string is:")

print(my\_counter)

**Output:**

The string is :

Hi Will

The length of the string is

7

1. **Write a program to check if the substring is present in a given string or not**

my\_string="I love python"

print(my\_string[2:6])

print(my\_string[2:])

print(my\_string[:-1])

Output:

love

love python

I love pytho

1. **Write a program to perform the given operations on a list:**

def perform\_operations():

# Initial list

my\_list = [10, 20, 30, 40, 50]

print("original list:",my\_list)

# Addition operation

my\_list.append(60)

print("after addition:",my\_list)

# Insertion operation

my\_list.insert(2, 25) # Insert 25 at index 2

print("after insertion:",my\_list)

# Slicing operation

sliced\_list = my\_list[1:4] # Extract elements from index 1 to 3 (4 is excluded)

print("after sliced operation:",sliced\_list)

# Execute the function

perform\_operations()

**Output:**

original list: [10, 20, 30, 40, 50]

after addition: [10, 20, 30, 40, 50, 60]

after insertion: [10, 20, 25, 30, 40, 50, 60]

after sliced operation: [20, 25, 30]

1. **write a program to perform any 5 built in functions by taking any list**

def main():

# Sample list

numbers = [3, 1, 7, 4, 2, 5]

# 1. len() - Returns the length of the list

print("length:",len(numbers))

# 2. sum() - Returns the sum of all elements in the list

print("Sum of elements:",sum(numbers))

# 3. max() - Returns the maximum element in the list

print("Maximum value:",max(numbers))

# 4. min() - Returns the minimum element in the list

print("Minimum value:",min(numbers))

# 5. sorted() - Returns a sorted version of the list

print("Sorted list:",sorted(numbers))

main()

**Output:**

length: 6

Sum of elements: 22

Maximum value: 7

Minimum value: 1

Sorted list: [1, 2, 3, 4, 5, 7]