**Q1. . Write a Python program to sum all the items in a list.**

def sum\_of\_list(lst):

total = 0 Start with 0

for item in lst: Loop through each item in the list

total += item Add each item to the total

return total Return the final sum

Example

my\_list = [1, 2, 3, 4, 5]

print("Sum of all items:", sum\_of\_list(my\_list))

OUTPUT:

Sum of all items: 15

**Q2. Write a Python program to get the largest and smallest number from a list without builtin functions.**

def largest\_and\_smallest(lst):

smallest = lst[0] Assume the first number is the smallest largest = lst[0] Assume the first number is the largest

for num in lst: Go through each number in the list

if num < smallest: If the number is smaller, update smallest

smallest = num

if num > largest: If the number is bigger, update largest

largest = num

return largest, smallest

Return both the largest and smallest

Example

my\_list = [10, 20, 5, 40, 1]

largest, smallest = largest\_and\_smallest(my\_list)

print("Largest:", largest, "Smallest:", smallest)

OUTPUT

Largest: 40 Smallest:1

**Q3. Write a Python program to find duplicate values from a list and display those.**

def find\_duplicates(lst):

duplicates = [] Empty list to store duplicates

for item in lst: Go through each item in the list

if lst.count(item) > 1 and item not in duplicates:

duplicates.append(item) Add it to duplicates

return duplicates

Example

my\_list = [1, 2, 3, 4, 1, 2, 5]

print("Duplicate values:", find\_duplicates(my\_list))

OUTPUT:

Duplicate values: [1, 2]

**Q4. . Write a Python program to split a given list into two parts where the length of the first part of the list is given. Original list: [1, 1, 2, 3, 4, 4, 5, 1] Length of the first part of the list: 3 Splitted the said list into two parts: ([1, 1, 2], [3, 4, 4, 5, 1])**

def split\_list(lst, length\_of\_first\_part):

part1 = lst[:length\_of\_first\_part]

part2 = lst[length\_of\_first\_part:] The second part is the rest of the list

return part1, part2

Example

my\_list = [1, 1, 2, 3, 4, 4, 5, 1]

first\_part\_length = 3

part1, part2 = split\_list(my\_list, first\_part\_length)

print("Splitted list:", part1, part2)

OUTPUT:

Splitted list: [1, 1, 2] [3, 4, 4, 5, 1]

Q5. **Write a Python program to traverse a given list in reverse order, and print the elements with the original index. Original list: ['red', 'green', 'white', 'black'] Traverse the said list in reverse order: black white green red**

def traverse\_reverse(lst):

for i in range(len(lst) - 1, -1, -1): Loop backward using range() print(lst[i]) Print each element

Example

my\_list = ['red', 'green', 'white', 'black']

print("Traverse the list in reverse order:")

traverse\_reverse(my\_list)

OUTPUT:

Traverse the list in reverse order: black

white

green

red