Exercise 1: Perform CRUD Operations in an Array

arr = []

n = int(input("Enter the number of elements: "))

print("Enter the elements:")

for i in range(n):

arr.append(int(input(f"Element {i+1}: ")))

print("\nCurrent Array:", arr)

index = int(input("\nEnter the index to update: "))

new\_value = int(input("Enter new value: "))

if 0 <= index < len(arr):

arr[index] = new\_value

print("Updated Array:", arr)

else:

print("Invalid index!")

del\_value = int(input("\nEnter the value to delete: "))

if del\_value in arr:

arr.remove(del\_value)

print("Array after deletion:", arr)

else:

print("Value not found!")

Exercise 2: Linear Search in an Array or List

arr = []

n = int(input("Enter the number of elements: "))

print("Enter the elements:")

for i in range(n):

arr.append(int(input(f"Element {i+1}: ")))

key = int(input("\nEnter the number to search: "))

found = False

for i in range(len(arr)):

if arr[i] == key:

print(f"Element {key} found at index {i}")

found = True

break

if not found:

print("Element not found in the array.")