**ASSIGNMENT- DAY 2- 11/03/2025**

1. **Perform Crud operation in an array**

arr = []

def create(element):

arr.append(element)

def read():

print(arr)

def update(index, new\_value):

if 0 <= index < len(arr):

arr[index] = new\_value

else:

print("Invalid index")

def delete(index):

if 0 <= index < len(arr):

arr.pop(index)

else:

print("Invalid index")

create(5)

create(10)

create(20)

read()

print("Updated Array:")

update(1, 15)

read()

update(4, 30) # Trying to update an invalid index

delete(5) # Trying to delete an invalid index

print("Array after deletion:")

delete(2)

read()

**Output:**

[5, 10, 20]

Updated Array:

[5, 15, 20]

Invalid index

Invalid index

Array after deletion:

[5, 15]

1. **Take user input of numbers to perform linear search in an array or list**

arr = list(map(int, input("Enter numbers: ").split()))

match = int(input("Enter number to search: "))

def linear\_search(arr, match):

for i in range(len(arr)):

if arr[i] == match:

return i

return -1

print(linear\_search(arr, match))

**Output:**

1.Enter Elements: 5 6 3 4 8

Enter number to search: 8

4

2. Enter Elements: 5 7 8 3 2

Enter number to search: 9

-1

**Algorithm:**

1. Take input from the user and store it in an array (arr).
2. Take the number to search as input from use.
3. Define a function linear\_search(arr, match):
4. Iterate through the array using a loop.
5. If the current element matches with the search then return its index.
6. If the element does not match then move to the next element in an array.
7. If no match is found after the loop, return -1.
8. Call the function and print the result.