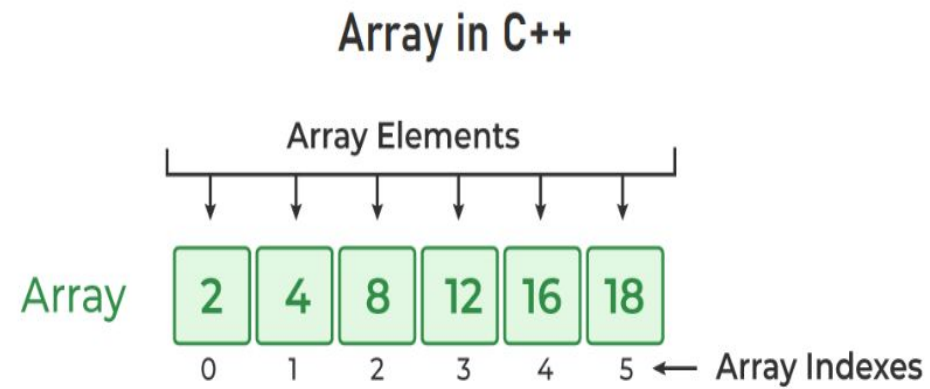# Arrays

Sajjad Ali Rajper

► Data Structure that is used to store multiple values of similar type in a contiguous memory location, an array is also called as homogenous collection of data.

Array in C++

Array Elements

Array | 2 | 4 | 8 | 12 | 16 | 18 |
        0   1   2   3   4   5 ← Array Indexes

Task-1

- Create a program that asks the user to enter **5 integers**, stores them in a 1D array, and then prints all the values.

Task-2

► Ask the user to enter **N (size)** and then input N integers. Find and print the **largest number** in the array.

Task-3

- Take an array of 8 integers and count how many of them are **positive, negative, and zero**. Display the count for each category.

Task-4

- Input 6 integers in an array and print them in **reverse order** using a loop (without using built-in reverse functions).

Task-5

- Write a C++ program to input a 3×3 matrix from the user and print it in matrix form.

Task-6

- Write a C++ program to calculate the sum of all elements of a 3×3 matrix.

Task-7

► Write a program to input a 3×3 matrix and print the sum of each row separately.

Task-8

- Write a program to input a 3×3 matrix and print the sum of each column.

Task-9

- ► Write a C++ program to find the maximum element in a 3×3 matrix.

Task-10

- Write a program to input two 3×3 matrices and print their sum.

Task-11

- Write a program to find and print the transpose of a 3×3 matrix.