1D Array Basic

Most 1D array task
- sum, average, min/max
- Reverse array in place, check sorted, Search element
- Remove duplicates, move zero to end.
→ Second largest, kth largest, median.
→ Marge two sorted arrays -

Problem

sum of elements
Reverse in place.
check sorted
Find 2nd largest

Array :- Array is collection of similar data types stored in contiguous memory location.

Contiguous memory means that all the elements of an a are stored next to each other in memory, without an gap.

→ Advantage

Fast access
Better Cache performance

Disadvantage

- Fixed size
→ Fragmentation
→ Insertion / Deletion is slo

If you want to insert o delete an element in the middle, you have to shift

other elements. this takes extra time.

- only homogeneous data

1) Sum of Array element

A = { 5, 10, 15, 20, 25 };

0	1	2	3	4
5	10	15	20	25

```
int main ()
{
  int arr[ ] = { 5, 10, 15, 20, 25 };
  int n = size of (arr) / size of (arr[0]);
                          20/5    4  20 4  5
  int Sum = 0;            int
  for (int i = 0; i<n; i++)
    {
      sum += arr[i];
    }
  Count <<"Sum of array elements: "<< sum <<endl;
  return 0;
}.
```

2) Find the Average of all elements

```
int main ()
{
int arr[ ] = { 1, 2, 3, 4, 4, 5, 1 };
int n = size of(arr) / size of (arr[0]);
  int sum = 0;
```