

Assignment 5: Array

1. WAP to add corresponding elements of two 1-Dimensional array and store in third array, also calculate the average of the 2nd third array.
2. WAP to count total no of odd and even numbers from the 1-D array.
3. WAP to sort an array in descending order.
4. WAP to exchange the smallest and largest values in 1-D array.
5. WAP to delete an element of an array given by the user.
6. WAP to insert an element in an array specified by the user.
7. Given an array `arr[]` of size `N`. The task is to find the sum of `arr[i] % arr[j]` for all valid pairs.

Answer can be large. So, output answer modulo 1000000007

Input: `arr[] = {1, 2, 3}`

Output: 5

$$(1 \% 1) + (1 \% 2) + (1 \% 3) + (2 \% 1) + (2 \% 2) \\ + (2 \% 3) + (3 \% 1) + (3 \% 2) + (3 \% 3) = 5$$

8. WAP to perform matrix multiplication of 3*3 matrixes.
9. Given an array of integers of size `n`, find out if the numbers in the array appear in a palindromic order. A palindrome is a sequence that reads the same when you flip it. For example, 121 is a palindrome, 3 is a palindrome, and 234432 is also a palindrome
10. Given two sorted arrays of sizes `m` and `n`, write a program that merges the two into another array of size `m + n` such that this new array also remains sorted.
11. WAP to subtract 2-D Matrices.