Assignment 5: Arrays

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1. WAP to add corresponding elements of two 1-Dimensional arrays and store in the third array, also calculate the average of the third array.

```
#include<stdio.h>


int main(){
    int n,i;
    scanf("%d",&n);
    int a[n],b[n],c[n];
    float avg,sum=0;
    for(i=0;i<n;i++){
        printf("a[%d]= ",i);
        scanf("%d",&a[i]);
    }
    for(i=0;i<n;i++){
        printf("b[%d]= ",i);
        scanf("%d",&b[i]);
            }

    printf("Now printing the array c[i]=a[i]+b[i]: \n \n");

    for(i=0;i<n;i++){
        c[i]=a[i]+b[i];
        printf("c[%d]=%d \n",i,c[i]);
    }
```

```
    for(i=0;i<n;i++){
        sum=sum+c[i];
    }


    printf("Now printing average. :");
    avg=sum/n;
    printf("%0.2f",avg);


    return 0;
}
```

2. WAP to sort an array in descending order.
3. WAP to count total no of odd and even numbers from the 1-D array.
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)
8. W AP to perform matrix multiplication of 3+ (2 % 3) + (3 % 1) + (3 % 2) + (3 % 3) = 5

*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.