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// Sum of all elements stored in a array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    // int arr[] = {1,2,3};
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    // int size = sizeof(arr)/sizeof(int);
    int sum = 0;
    for(int i=0; i<n; i++){
        sum = sum + arr[i];
    }
    printf("Sum = %d",sum);
    return 0;
}
// //////////////////////////////////////

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//Sum of even and odd elements in an Array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    int esum=0, osum=0;
    for(int i=0; i<n; i++){
        if(arr[i]%2==0){
            esum += arr[i];
        }
        else{
            osum += arr[i];
        }
    }
    printf("Sum of even elements are = %d\n",esum);
    printf("Sum of odd elements are = %d",osum);
    return 0;
}
// //////////////////////////////////////

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// To find maximum in a array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
}

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    }
    int max = arr[0];
    for(int i=0; i<n; i++){
        if(max>=arr[i]){
            continue;
        }
        else{
            max = arr[i];
        }
    }
    printf("%d",max);
    return 0;
}
// //////////////////////////////////////

// To find maximum and second maximum in a array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    int max = 0;
    int smax = 0;
    for(int i=0; i<n; i++){
        if(arr[i]>=max){
            smax = max;
            max = arr[i];
            continue;
        }
        else if(arr[i]>=smax){
            smax = arr[i];
        }
    }
    printf("%d  %d",max,smax);
    return 0;
}
// //////////////////////////////////////

// To reverse elements in an array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    for(int i=0; i<n; i++){
        for(int j=0; j<=i; j++){
            int t;
            t = arr[i];

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        arr[i] = arr[j];
        arr[j] = t;
    }
}
for(int i=0; i<n; i++){
    printf("%d  ",arr[i]);
}
return 0;
}
// //////////////////////////////////////

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// To insert any element at any location.

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#include<stdio.h>
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int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n+1];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    printf("{");
    for(int i=0; i<n; i++){
        if(i==n-1)
            printf("%d",arr[i]);
        else
            printf("%d, ",arr[i]);
    }
    printf("\n");
    int e,in;
    printf("Enter the element and the index value: ");
    scanf("%d,%d",&e,&in);
    in++;
    if(in<=n+1){
        for(int i=n; i>=in;i--){
            arr[i+1] = arr[i];
        }
        arr[in] = e;
        printf("After insertion: \n");
        printf("{");
        for(int i=0; i<n+1; i++){
            if(i==n)
                printf("%d",arr[i]);
            else
                printf("%d, ",arr[i]);
        }
    }
    else{
        printf("Out of range INDEX");
    }
    return 0;
}
// //////////////////////////////////////

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// To delete any element at any location.

```
#include<stdio.h>
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int main(){
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    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    printf("{");
    for(int i=0; i<n; i++){
        if(i==n-1)
            printf("%d",arr[i]);
        else
            printf("%d, ",arr[i]);
    }
    printf("\n");
    int in;
    printf("Enter the index value: ");
    scanf("%d",&in);
    in++;
    if(in<=n){
        for(int i=in; i<n;i++){
            arr[i-1] = arr[i];
        }
        printf("After deletion: \n");
        printf("{");
        for(int i=0; i<n-1; i++){
            if(i==n-2)
                printf("%d",arr[i]);
            else
                printf("%d, ",arr[i]);
        }
    }
    else{
        printf("Out of range INDEX");
    }
    return 0;
}
// //////////////////////////////////////

// To find duplicate elements in a array.
#include<stdio.h>
int main(){
    int n;
    printf("Enter number of elements you want to stored: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter elements:\n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    int darr[n];
    for(int i=0; i<n; i++){
        darr[i] = 0;
    }
    int flag = 0;
    for(int i=0; i<n; i++){
        for(int j=i+1; j<n; j++){

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        if(arr[i]==arr[j]){
            for(int k=0; k<i; k++){
                if(darr[k]==arr[i]){
                    flag = 1;
                    continue;
                }
            }
            if(flag==0){
                darr[i] = arr[i];
            }
        }
        flag = 0;
    }
    printf("Duplicate elements are:\n");
    for(int k=0; k<n; k++){
        if(darr[k]!=0){
            printf("%d  ",darr[k]);
        }
    }
    return 0;
}

```