1.Read and print array elements

```c
#include <stdio.h>
int main() {
int n;
int arr[100];
int i;
printf("Enter the size of an array\n");
scanf("%d",&n);
for(int i=0;i<n;i++)
{
    scanf("%d",&arr[i]);
}
printf("The size of the array is %d\n",n);
 printf("Array elements are:");
 for(int i=0;i<n;i++)
 {
     printf("%d",arr[i]);
 }
return 0;
}
```

2. Find 2nd maximum element in an array

```c
#include <stdio.h>

int main() {
    int n;
    int arr[100];
    int i;
    printf("Enter the size of an array\n");
    scanf("%d", & n);
    for (int i = 0; i < n; i++)
    {
        scanf("%d", & arr[i]);
    }
    printf("The size of the array is %d\n", n);
    printf("Array elements are:");
    for (int i = 0; i < n; i++)
    {
        printf("%d", arr[i]);
```

```
    }
    int max=arr[0];
    for(i=0;i<n;i++)
    {
        if(arr[i]>max)
        {
            max=arr[i];
        }
    }
        int max2=arr[0];
     for(i=0;i<n;i++)
    {
    if(arr[i]!=max && arr[i]>max2)
    {
        max2=arr[i];
    }
    }
    printf("%d",max2);
    return 0;
}
```

3. Program to print sum of array elements

```
#include<stdio.h>

int main() {
    int n, i, arr[100], sum = 0;
    printf("enter the number of elements\n");
    scanf("%d", & n);
    printf("Enter the elements in array:\n");
    for (i = 0; i < n; i++) {
        scanf("%d", & arr[i]);
    }
    printf("The array elements are:\n");
    for (i = 0; i < n; i++)
    {
        printf("%d\n", arr[i]);
    }
    for (i = 0; i < 5; i++) {
        sum += arr[i];
    }
    printf("Sum of the array elements is: %d\n", sum);
```

```
    return 0;
}
```

4. Display unique elements in an array

```
#include <stdio.h>
#include<stdlib.h>
int main()
{
    int n,i,arr[100];
    int j;
    printf("Enter the size of an array\n");
    scanf("%d",&n);
    printf("Enter the elements in array:\n");
    for(i=0;i<n;i++)
    {
    scanf("%d",&arr[i]);
    }
    printf("The size of the array is %d\n",n);
    printf("The array elements are:\n");
    for(i=0;i<n;i++)
    {
    printf("%d\n",arr[i]);
    }
     printf("Unique numbers: ");
    for (i = 0; i < n; i++) {
        int isUnique = 1;
        for (j = 0; j < n; j++) {
            if (i != j && arr[i] == arr[j]) {
                isUnique = 0;
                break;
            }
        }
        if (isUnique) {
            printf("%d ", arr[i]);
        }
    }
    printf("\n");
    return 0;
}
```

5.Reversing array elements

```c
#include <stdio.h>
int main()
{
    int n,i,arr[100];
    int temp;
    printf("Enter the size of an array\n");
    scanf("%d",&n);
    printf("Enter the elements in array:\n");
    for(i=0;i<n;i++)
    {
    scanf("%d",&arr[i]);
    }
    printf("The size of the array is %d\n",n);
    printf("The array elements are:\n");
    for(i=0;i<n;i++)
    {
    printf("%d\n",arr[i]);
    }
    for (i = 0; i < n / 2; i++) {
        temp = arr[i];
        arr[i] = arr[n - i - 1];
        arr[n - i - 1] = temp;
    }
    printf("Reversed array: ");
    for (i = 0; i < n; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");

    return 0;
}
```

6. Merging two arrays

```c
#include <stdio.h>
int main()
{
```

```c
    int arr1[5]={1,2,3,5,4};
    int arr2[3]={7,8,9};
    int merged[8];
    int i;
    for (i = 0; i < 5; i++) {
        merged[i] = arr1[i];
    }
    for (i = 0; i < 3; i++) {
        merged[5 + i] = arr2[i];
    }
    printf("Merged array: ");
    for (i = 0; i < 8; i++) {
        printf("%d ", merged[i]);
    }
    printf("\n");
    return 0;
}
```