1️⃣ Program to Read and Print Elements of an Array

include <stdio.h>

void main()

{

int n, i, arr[100];

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Array elements are:\n");

for(i=0; i<n; i++)

printf("%d ", arr[i]);

}

Input:

5

1 2 3 4 5

Output:

Array elements are:

1 2 3 4 5

2️⃣ Program to Find the Sum of Elements of an Array

#include <stdio.h>

void main() {

int n, i, arr[100], sum = 0;

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++){

scanf("%d", &arr[i]);

sum += arr[i];

}

printf("Sum of elements = %d", sum);

}

Input:

5

1 2 3 4 5

Output:

Sum of elements = 15

3️⃣ Program to Find Maximum and Minimum Element

#include <stdio.h>

void main() {

int n, i, arr[100], max, min;

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

max = min = arr[0];

for(i=1; i<n; i++){

if(arr[i]>max) max=arr[i];

if(arr[i]<min) min=arr[i];

}

printf("Maximum = %d\nMinimum = %d", max, min);

}

Input:

5

10 3 45 6 2

Output:

Maximum = 45

Minimum = 2

4️⃣ Program to Reverse an Array

#include <stdio.h>

void main() {

int n, i, arr[100];

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Reversed array:\n");

for(i=n-1; i>=0; i--)

printf("%d ", arr[i]);

}

Input:

5

1 2 3 4 5

Output:

Reversed array:

5 4 3 2 1

5️⃣ Program for Linear Search

#include <stdio.h>

void main() {

int n, i, arr[100], key, found=0;

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Enter element to search: ");

scanf("%d", &key);

for(i=0; i<n; i++){

if(arr[i]==key){

printf("Element found at position %d", i+1);

found=1;

break;

}

}

if(!found) printf("Element not found");

}

Input:

5

10 20 30 40 50

30

Output:

Element found at position 3

6️⃣ Program to Sort an Array in Ascending Order

include <stdio.h>

void main() {

int n, i, j, temp, arr[100];

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

for(i=0; i<n-1; i++){

for(j=i+1; j<n; j++){

if(arr[i]>arr[j]){

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

}

printf("Array in ascending order:\n");

for(i=0; i<n; i++)

printf("%d ", arr[i]);

}

Input:

5

5 3 1 4 2

Output:

Array in ascending order:

1 2 3 4 5

7️⃣ Program to Insert an Element in an Array

#include <stdio.h>

void main() {

int n, i, pos, value, arr[100];

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Enter position to insert: ");

scanf("%d", &pos);

printf("Enter value to insert: ");

scanf("%d", &value);

for(i=n; i>=pos; i--)

arr[i]=arr[i-1];

arr[pos-1]=value;

n++;

printf("Array after insertion:\n");

for(i=0; i<n; i++)

printf("%d ", arr[i]);

}

Input:

5

1 2 4 5 6

3

3

Output:

Array after insertion:

1 2 3 4 5 6

8️⃣ Program to Delete an Element from an Array

#include <stdio.h>

void main() {

int n, i, pos, arr[100];

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Enter position to delete: ");

scanf("%d", &pos);

for(i=pos-1; i<n-1; i++)

arr[i]=arr[i+1];

n--;

printf("Array after deletion:\n");

for(i=0; i<n; i++)

printf("%d ", arr[i]);

}

Input:

5

1 2 3 4 5

3

Output:

Array after deletion:

1 2 4 5

9️⃣ Program to Find Frequency of Elements in an Array

#include <stdio.h>

void main() {

int n, i, j, count, arr[100], visited[100]={0};

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i=0; i<n; i++)

scanf("%d", &arr[i]);

printf("Frequency of each element:\n");

for(i=0; i<n; i++){

if(visited[i]==1) continue;

count=1;

for(j=i+1; j<n; j++){

if(arr[i]==arr[j]){

count++;

visited[j]=1;

}

}

printf("%d occurs %d times\n", arr[i], count);

}

}

Input:

6

1 2 2 3 1 4

Output:

1 occurs 2 times

2 occurs 2 times

3 occurs 1 times

4 occurs 1 times

➡️10.Program to merge two arrays

include <stdio.h>

void main() {

int n1, n2, i, arr1[100], arr2[100], merge[200];

printf("Enter number of elements in first array: ");

scanf("%d", &n1);

printf("Enter %d elements:\n", n1);

for(i=0; i<n1; i++)

scanf("%d", &arr1[i]);

printf("Enter number of elements in second array: ");

scanf("%d", &n2);

printf("Enter %d elements:\n", n2);

for(i=0; i<n2; i++)

scanf("%d", &arr2[i]);

for(i=0; i<n1; i++)

merge[i]=arr1[i];

for(i=0; i<n2; i++)

merge[n1+i]=arr2[i];

printf("Merged array:\n");

for(i=0; i<n1+n2; i++)

printf("%d ", merge[i]);

}

Input:

3

1 2 3

3

4 5 6

Output:

Merged array:

1 2 3 4 5 6.