```c
/*

Que : 1. Write a C program to find the sum of all the elements of an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[100], n, sum = 0; // Initialize required variables

	printf("How many elements do you want in array? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.

	printf("Enter array Elements\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	printf("\nThe sum of all the elements of an array is: ");

	// Logic to find sum of all the elements of an array
	for (int i = 0; i < n; i++)
	{
		sum = sum + arr[i];
	}

	printf("%d\n", sum);
}




/*

Que : 2. An array consist of Integers. Write a C program to count the number of
elements less than, greater than and equal to zero.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
```

```
	int arr[100], n, P_Count = 0, N_Count = 0, Z_Count = 0; // Initialize required
variables

	printf("How many elements do you want in array? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.

	printf("Enter array Elements\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	// Logic to find sum of all the elements of an array
	for (int i = 0; i < n; i++)
	{
		if (arr[i] > 0) {
			P_Count++;
		}
		else if (arr[i] < 0) {
			N_Count++;
		}
		else {
			Z_Count++;
		}
	}

	printf("\nNumber of elements less than zero are: %d", N_Count);
	printf("\nNumber of elements equal to zero are: %d", Z_Count);
	printf("\nNumber of elements greater than zero are: %d", P_Count);

}




/*

Que : 3. Write a C program that return the positions of the pallindrome element in
array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[100], n; // Initialize required variables

	printf("How many elements do you want in array? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.
```

```
	printf("Enter array Elements\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	printf("\nThe positions of the pallindrome elements in array are: ");

	// For loop to return the positions of the pallindrome element in array.
	for (int i = 0; i < n; i++)
	{
		int number = arr[i];
		int temp_number = number;
		int result = 0;

		// Logic to find Pallindrome of number
		while (number > 0) {
			int extra = number % 10;
			result = (result * 10) + extra;
			number = number / 10;
		}

		if (temp_number == result) {
			printf("%d ", i);
		}
	}

}




/*

Que : 4. Write a C program to sort first half of array in ascending order and second
half of array in descending order.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[100], n, mid; // Decleration of required variables

	printf("How many elements do you want in array? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.

	mid = n / 2; // Divide given array in two halfs.
```

```
	printf("Enter array Elements\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	// Logic to sort array in ascending order
	for (int i = 0; i < mid; i++)
	{
		for (int j = i + 1; j < mid; j++)
		{
			if (arr[i] > arr[j]) {
				int temp = arr[i];
				arr[i] = arr[j];
				arr[j] = temp;
			}
		}
	}

	// Logic to sort array in descending order
	for (int i = mid; i < n; i++)
	{
		for (int j = i + 1; j < n; j++)
		{
			if (arr[i] < arr[j]) {
				int temp = arr[i];
				arr[i] = arr[j];
				arr[j] = temp;
			}
		}
	}

	printf("\nResultant array is: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}
}




/*

Que : 5. Write a C program to copy the elements of one array into another array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********
```

```c
#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr1[100], arr2[100], n; // Decleration of required variables

	printf("How many elements do you want in array(array1)? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.

	printf("Enter array Elements:\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr1[i]);
	}

	for (int i = 0; i < n; i++) // For loop to copy array elements.
	{
		arr2[i] = arr1[i];
		//printf("%d ", arr1[i]);
	}

	printf("\nThe resultant array(array2) is: ");
	for (int i = 0; i < n; i++)
	{
		printf("%d ", arr2[i]);
	}

}




/*

Que : 6. Write a C program to sort only even numbers in given array.
		Eg.
			Input: 45 8 75 29 5 49 56 22 14 497 288 18 2
			Output: 45 2 75 29 5 49 8 14 18 497 22 56 288
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, min; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}
```

```
	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	printf("\nSorted Array In Ascending Order Of Only Even Numbers: ");


	// Logic for sorting of array of even elements
	for (int i = 0; i < n; i++)
	{
		if (arr[i]%2 == 0)
		{
			for (int j = i + 1; j < n; j++)
			{
				if (arr[j]%2 == 0)
				{
					if (arr[i] > arr[j]) {
						int temp = arr[i];
						arr[i] = arr[j];
						arr[j] = temp;
					}
				}
			}
		}
	}

	for (int i = 0; i < n; i++) // Print sorted array...
	{
		printf("%d ", arr[i]);
	}
	printf("\n");
}




/*

Que : 7. Write a program in C to separate odd and even integers in same array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
```

```
			scanf_s("%d", &arr[i]);
		}

		printf("Array Elements are: ");

		for (int i = 0; i < n; i++) // For loop to print array elements.
		{
			printf("%d ", arr[i]);
		}

		// Logic to seperate odd and even integers in an array
		for (int i = 0; i < n-1; i++)
		{
			if (arr[i] % 2 == 0)
			{
				for (int j = i + 1; j < n; j++)
				{
					if (arr[j] % 2 != 0)
					{
						int temp = arr[i];
						arr[i] = arr[j];
						arr[j] = temp;
						break;
					}
				}
			}

		}

		printf("\nThe seperate odd and even integers in given array are: ");
		for (int i = 0; i < n; i++) // For loop to print array elements.
		{
			printf("%d ", arr[i]);
		}
}




/*

Que : 8. Write a program in C to count the frequency of each element of an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

		int arr[100], freq[100], n; // Declaration of Required Variables

		printf("How many Elements do you want in array?\n");
		scanf_s("%d", &n); // Take Input - Number of array elements.

		printf("Enter Array Elements: \n");
		for (int i = 0; i < n; i++) // For loop to take input array elements.
		{
```

```
		scanf_s("%d", &arr[i]);
		freq[i] = 0;
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	// Logic to find frequency count of each element of an array.
	for (int i = 0; i < n; i++)
	{
		int count = 1;
		for (int j = i+1; j < n; j++)
		{
			if (arr[i] == arr[j]) {
				count++;
				freq[j] = -1;
			}
		}
		if (freq[i] != -1) {
			freq[i] = count;
		}

	}

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		if (freq[i] != -1) {
			printf("\nThe count of %d is %d", arr[i], freq[i]);
		}
	}
}




/*

Que : 9. Write a program in C to print all unique elements in an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], freq[100], n; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
```

```
			scanf_s("%d", &arr[i]);
			freq[i] = 0;
		}

		printf("Array Elements are: ");

		for (int i = 0; i < n; i++) // For loop to print array elements.
		{
			printf("%d ", arr[i]);
		}

		// Logic to find frequency count of each element of an array.
		for (int i = 0; i < n; i++)
		{
			int count = 1;
			for (int j = i + 1; j < n; j++)
			{
				if (arr[i] == arr[j]) {
					count++;
					freq[j] = -1;
				}
			}
			if (freq[i] != -1) {
				freq[i] = count;
			}

		}

		printf("\nAll Unique elements in an array are: ");

		for (int i = 0; i < n; i++) // For loop to print array elements.
		{
			if (freq[i] == 1) // Condition to check unique element in frequency
array.
			{
				printf("%d ", arr[i]);
			}
		}
}




/*

Que : 10. Write a program in C to insert New value in the array (sorted list ).
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

		int arr[100], n, num; // Declaration of Required Variables

		printf("How many Elements do you want in array?\n");
		scanf_s("%d", &n); // Take Input - Number of array elements.
```

```
	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	// Logic to sort array in ascending order.
	for (int i = 0; i < n; i++)
	{
		for (int j = i + 1; j < n; j++)
		{
			if (arr[i] > arr[j]) {
				int temp = arr[i];
				arr[i] = arr[j];
				arr[j] = temp;
			}
		}
	}

	printf("\nEnter a number to insert in array: ");
	scanf_s("%d", &num); // Take input number to insert in array.

	// Logic to insert new element in an array.
	int position = n;
	for (int i = 0; i < n; i++)
	{
		if (arr[i] > num)
		{
			position = i;
			break;
		}
	}

	for (int i = n; i >= position; i--) // For loop for shifting of elements
	{
		arr[i + 1] = arr[i];
	}
	arr[position] = num;

	printf("Array Elements after inserting new element in array: ");
	for (int i = 0; i < n+1; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}


}



/*

Que : 11. Write a program in C to delete an element at desired position from an array.
```

```
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, position; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	printf("\nEnter the position of array element which you want to delete: ");
	scanf_s("%d", &position); // Take input position to delete an array element.

	// Logic to delete an element from an array at desired position.
	for (int i = position; i < n; i++)
	{
		arr[i] = arr[i + 1];
	}


	printf("Array Elements after deleting an position %d element from array: ",
position);
	for (int i = 0; i < n - 1; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}


}




/*

Que : 12a. Write a program in C to find the maximum / minimum element in an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********
```

```c
#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, max; // Initialize required variables.

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	max = arr[0]; // Conside maximum value is first element of array.

	// Logic to get maximum element of array..
	for (int i = 0; i < n; i++)
	{
		printf("%d ", arr[i]);

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

	printf("\nThe Maximum Element In Given Array is: %d \n", max);

}




/*

Que : 12b. Write a program in C to find the maximum / minimum element in an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, min; // Declaration of required variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take input - Number of array elements

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // for loop to take input array elements
	{
		scanf_s("%d", &arr[i]);
```

```
	}

	printf("Array Elements are: ");

	min = arr[0]; // Consider minimum element is first element of array..

	// Logic to find minimum element of array...
	for (int i = 0; i < n; i++)
	{
		printf("%d ", arr[i]);

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

	printf("\nThe Minimum Element In Given Array is: %d \n", min);

}




/*

Que : 13. Write a program in C to find the second largest element in an array.
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, high, sec_high; // Declaration of required variables.

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); //Take Input - Number of array elements

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	high = arr[0]; // Consider highest element is first element of array

	// Logic to find highest element of array
	for (int i = 0; i < n; i++)
	{
		printf("%d ", arr[i]);

		if (arr[i] > high) {
			high = arr[i];
		}
	}
```

```
	sec_high = arr[0]; // Consider second highest element is first element of array

	// Logic to find second highest element of array...
	for (int i = 0; i < n; i++)
	{
		if (arr[i] == high)
		{
			continue;
		}
		else if (arr[i] > sec_high)
		{
			sec_high = arr[i];
		}
	}

	printf("\nThe Second Highest Element In Given Array is: %d \n", sec_high);

}




/*

Que : 14. Write a C Program to Find the Number of Elements in an Array
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[10] = {1,2,3,4,5,6,7,8,9,10}; // Initialization of array

	int arr_size = sizeof(arr); // get the size of array
	printf("size of arr: %d\n", arr_size);

	int int_size = sizeof(int); // get the size of data type
	printf("size of int: %d\n", int_size);

	int number = arr_size / int_size; // Calculate the number of elements in an
array

	printf("The total number of elements in given array are: %d\n", number);

}




/*

Que : 15. Write a C Program to Check Array bounds while Inputing Elements into the
Array
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9
```

```
*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[10], n; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	int no_of_elements = sizeof(arr) / sizeof(int);

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		if (i >= no_of_elements) // Condition to check array bounds...
		{
			printf("Error: Array Elements Out Of Bound...\n");
			//break;
			exit(0);
		}
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}


}




/*

Que : 16. Write a C Program to Print the Alternate Elements in an Array
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[100], n; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
```

```
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Alternate Array Elements are: ");

	for (int i = 0; i < n; i = i+2) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

}




/*

Que : 17. Write a C Program to Find 2 Elements in the Array such that Difference
between them is Largest
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, max, min; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	max = arr[0]; // Conside maximum value is first element of array.

	// Logic to get maximum element of array..
	for (int i = 0; i < n; i++)
	{
		if (arr[i] > max) {
			max = arr[i];
		}
	}
	min = arr[0]; // Conside minimum value is first element of array.
```

```
	// Logic to get minimum element of array..
	for (int i = 0; i < n; i++)
	{
		if (arr[i] < min) {
			min = arr[i];
		}
	}

	printf("\nThe two elements from array whose difference is largest are: %d
and %d", min, max);
}




/*

Que : 19. Write a C program to store squares of the elements in the same array
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {
	int arr[100], n; // Decleration of required variables

	printf("How many elements do you want in array? \n");
	scanf_s("%d", &n); // Take input - Number of array elements.

	printf("Enter array Elements\n");

	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	for (int i = 0; i < n; i++) // For loop to get squares of array elements.
	{
		arr[i] = arr[i] * arr[i];
	}

	printf("\nThe Squares of array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

}
```

```c
/*

Que : 21. Write C Program to Find if a given Integer X appears more than N/2 times in
a Sorted Array of N Integers
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                      *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr[100], n, num; // Declaration of Required Variables

	printf("How many Elements do you want in array?\n");
	scanf_s("%d", &n); // Take Input - Number of array elements.

	printf("Enter Array Elements: \n");
	for (int i = 0; i < n; i++) // For loop to take input array elements.
	{
		scanf_s("%d", &arr[i]);
	}

	// Logic to sort array in ascending order.
	for (int i = 0; i < n; i++)
	{
		for (int j = i + 1; j < n; j++)
		{
			if (arr[i] > arr[j]) {
				int temp = arr[i];
				arr[i] = arr[j];
				arr[j] = temp;
			}
		}
	}

	printf("Array Elements are: ");

	for (int i = 0; i < n; i++) // For loop to print array elements.
	{
		printf("%d ", arr[i]);
	}

	printf("\nEnter a number to check: ");
	scanf_s("%d", &num); // Take input number to check if it occures more than n/2
times or not.

	int count = 0;

	for (int i = 0; i < n; i++) // For loop to get the count of number
	{
		if (arr[i] == num) {
			count++;
		}
	}
```

```
	if (count >= n / 2)
	{
		printf("Integer %d appears more than N/2 times in a given Sorted
Array.", num);
	}
	else {
		printf("Integer %d not appears more than N/2 times in a given Sorted
Array.", num);
	}
}




/*

Que : 22. Write C Program to Find Union & Intersection of 2 Arrays
Owner: Rushikesh Sanjay Pokharkar
Batch: PPA9

*/

//                                        *********  Solution  *********


#include<stdio.h> //Include Necessary Header Files.

void main() {

	int arr1[100], arr2[100], n1, n2, arr_union[100], arr_intersection[100], n3; //
Declaration of required variables

	printf("How many Elements do you want in array1?\n");
	scanf_s("%d", &n1); // Take input - Number of array elements in array1

	printf("Enter Array1 Elements: \n");
	for (int i = 0; i < n1; i++) // For loop to take input array elements of
array1.
	{
		scanf_s("%d", &arr1[i]);
	}

	printf("Array1 Elements are: ");
	for (int i = 0; i < n1; i++) // For loop to print array elements of array1
	{
		printf("%d ", arr1[i]);
	}

	printf("\nHow many Elements do you want in array2?\n");
	scanf_s("%d", &n2); // Take input - Number of array elements in array2.

	printf("Enter Array2 Elements: \n");
	for (int i = 0; i < n2; i++) // For loop to take input array elements of
array2.
	{
		scanf_s("%d", &arr2[i]);
	}

	printf("Array2 Elements are: ");
	for (int i = 0; i < n2; i++) // For loop to print array elements of array2.
	{
```

```
		printf("%d ", arr2[i]);
	}

	// Logic to get the union of two arrays.
	printf("\nThe Union of Array1 and Array2 is: ");
	int i = 0, j = 0;
	while (i < n1 && j < n2) {
		if (arr1[i] < arr2[j])
			printf("%d ", arr1[i++]);
		else if (arr2[j] < arr1[i])
			printf("%d ", arr2[j++]);
		else {
			printf("%d ", arr2[j++]);
			i++;
		}
	}
	//Print remaining elements of the larger array
	while (i < n1)
		printf("%d ", arr1[i++]);
	while (j < n2)
		printf("%d ", arr2[j++]);


	// Logic to get the intersection of two arrays
	printf("\nThe Intersection of Array1 and Array2 is: ");
	for (int i = 0; i < n1; i++)
	{
		for (int j = 0; j < n2; j++)
		{
			if (arr1[i] == arr2[j]) {
				printf("%d ", arr1[i]);
			}
		}
	}
}
```