Assignment - 14 A Job Ready Bootcamp in C++, DSA and IOT MySirG

Array in C Language

1. Write a program to calculate the sum of numbers stored in an array of size 10. Take

array values from the user.

#include<stdio.h>

int main()

{

int arr[10],sum=0;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

sum = sum + arr[i];

}

printf("\nSum of All arrays number: %d",sum);

return 0;

}

2. Write a program to calculate the average of numbers stored in an array of size 10.

Take array values from the user.

#include<stdio.h>

int main()

{

int arr[10],sum=0;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

sum = sum + arr[i];

}

printf("\nAverage all Element in Array is: %.2f",sum/10.0f);

return 0;

}

3. Write a program to calculate the sum of all even numbers and sum of all odd

numbers, which are stored in an array of size 10. Take array values from the user.

#include<stdio.h>

int main()

{

int arr[10],evenSum=0,oddSum=0;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

if(arr[i]%2==0)

evenSum+=arr[i];

else

oddSum+=arr[i];

}

printf("\nEven sum of All even element present in array: %d",evenSum);

printf("\nOdd sum of All odd element present in array: %d",oddSum);

return 0;

}

4. Write a program to find the greatest number stored in an array of size 10. Take array

values from the user.

#include<stdio.h>

int main()

{

int arr[10],gSum;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

}

gSum = arr[0];

for(int i=1; i<=9; i++)

{

if(gSum<arr[i])

gSum = arr[i];

}

printf("\nGreatest number in Array is: %d",gSum);

return 0;

}

5. Write a program to find the smallest number stored in an array of size 10. Take array

values from the user.

#include<stdio.h>

int main()

{

int arr[10],gSum;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

}

gSum = arr[0];

for(int i=1; i<=9; i++)

{

if(gSum>arr[i])

gSum = arr[i];

}

printf("\nSmallest number in Array is: %d",gSum);

return 0;

}

6. Write a program to sort elements of an array of size 10. Take array values from the

user.

#include<stdio.h>

int main()

{

int arr[10],gSum;

printf("Enter 10 number: \n");

for(int i=0; i<=9; i++)

{

printf("Enter %d number: ",i+1);

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

}

printf("\nBeforeḥ sorted array: ");

for(int i=0; i<=9; i++)

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

for(int i=0; i<=9; i++)

{

for(int j=i+1; j<=9; j++)

{

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

{

int temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

printf("\nAfter sorted array: ");

for(int i=0; i<=9; i++)

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

return 0;

}

7. Write a program to find second largest in an array.Take array values from the user.

#include<stdio.h>

int main()

{

int size;

printf("How many number u want to enter: ");

scanf("%d",&size);

int arr[size];

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

for(int i=0; i<size; i++)

{

printf("Enter %d number: ",i+1);

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

}

for(int i=0; i<size; i++)

{

for(int j=i+1; j<size; j++)

{

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

{

int temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

printf("\nSecond largest element is: %d",arr[size-2]);

return 0;

}

8. Write a program to find the second smallest number in an array.Take array values

from the user.

#include<stdio.h>

int main()

{

int size;

printf("How many number u want to enter: ");

scanf("%d",&size);

int arr[size];

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

for(int i=0; i<size; i++)

{

printf("Enter %d number: ",i+1);

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

}

for(int i=0; i<size; i++)

{

for(int j=i+1; j<size; j++)

{

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

{

int temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

printf("\nSecond smallest element is: %d",arr[1]);

return 0;

}

9. Write a program in C to read n number of values in an array and display it in reverse

order. Take array values from the user.

#include<stdio.h>

int main()

{

int n;

printf("How many number u want to enter: ");

scanf("%d",&n);

int arr[n];

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

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

{

printf("Enter %d number: ",i+1);

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

}

printf("\nIn Noramal Order: ");

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

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

printf("\nIn Reverse Order: ");

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

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

return 0;

}

10. Write a program in C to copy the elements of one array into another array.Take array

values from the user.

#include <stdio.h>

int main()

{

int n;

printf("How many number u want to enter: ");

scanf("%d", &n);

int firstArray[n], secondArray[n];

printf("Enter %d number in firstArray: \n", n);

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

{

printf("Enter %d number: ", i + 1);

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

}

printf("\nBefore copy element second array contain garbage value: ");

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

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

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

{

secondArray[i] = firstArray[i];

}

printf("\nAfter copy element second array will be: ");

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

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

return 0;

}