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| //1. Write a program in C to store elements in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) and print it |
| #include<stdio.h>  int main(){  int arr[10] = {10, 20, 30, 40, 50, 60, 70, 80, 90, 78};  for (int i = 0; i < 10; i++)  {  printf("%d ", arr[i]);  }    return 0;  } |
| //2. Write a program in C to read n number of values in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) and display it in reverse order. |
| #include<stdio.h>  int main(){  int num;  printf("Please input the size : ");  scanf("%d", &num);  int arr[num];  for (int i = 0; i < num; i++)  {  scanf("%d", &arr[i]);  }  for (int i = num-1; i >=0 ; i--)  {  printf("%d ", arr[i]);  }      return 0;  } |
| //3. Write a program in C to find the sum of all elements of the [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) |
| #include<stdio.h>  int main(){  int arr[10] = {10, 10, 20, 30, 40, 50, 60, 70, 80, 90};  int sum = 0;  for (int i = 0; i < 10; i++)  {  sum = sum + arr[i];  }  printf("Sum = %d", sum);  return 0;  } |
| //4.  Write a program in C to copy the elements of one [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) into another [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) |
| #include<stdio.h>  int main(){  int arr[10] = {1, 2, 5, 3, 4, 5, 6, 7, 8, 9};  int arr2[10];  printf("First Array : ");  for (size\_t i = 0; i < 10; i++)  {  arr2[i] = arr[i];  }  for (int i = 0; i < 10; i++)  {  printf("%d ", arr[i]);  }  printf("\n");  printf("Second Array : ");  for (int i = 0; i < 10; i++)  {  printf("%d ", arr2[i]);  }    return 0;  } |
| //5.  Write a program in C to count a total number of duplicate elements in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237). |
| #include<stdio.h>  int main(){  int arr[10]={2,2,4,4,6,1,3,5,8,9};  int count =0;  for(int i =0;i<10;i++){  for(int j=i+1;j<10;j++){  if(arr[i]==arr[j]){  count++;  }    }  }  printf("There are %d duplicate value",count);;  return 0;  } |
| //6. Write a program in C to print all unique elements in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) |
| #include<stdio.h>  int main(){  int arr[10] = {5, 10, 20, 10, 30, 10, 20, 40, 50, 60};    for(int i = 0; i < 10; i++){  int j;  for (j = 0; j < 10; j++)  {  if (arr[i] == arr[j] && i != j)  break;  }  if(j == 10 ){  printf("\nunique elements in an array is : %d ",arr[i]);  }  }  return 0;  } |
| //7. Write a program in C to merge two arrays of same size sorted in decending order |
| #include<stdio.h>  int main(){  int arr1[5] = {3, 4,1, 2, 5};  int arr2[5] = { 8, 9,6, 7, 10};  int margeArr[10]={0};  // marge array  for(int i = 0; i < 5; i++)  {  margeArr[i] = arr1[i];  }  for(int i = 0, j = 5; j < 10 && i < 5; i++, j++)  {  margeArr[j] = arr2[i];  }  //descending array  int temp = 0;  for (int i = 0; i < 10; i++)  {  for (int j = 0; j <10; j++)  {  if (margeArr[i]>margeArr[j])  {  temp = margeArr[i];  margeArr[i] = margeArr[j];  margeArr[j] = temp;  }  }    }  for (int i = 0; i < 10; i++)  {  printf("%d ", margeArr[i]);  }      return 0;  } |
| //8. Write a program in C to find the maximum and minimum element in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237). |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  int minNum = 0;  for (int i = 0; i < 10; i++)  {  if (arr[i]<minNum)  {  minNum = arr[i];  }  }  int maxNum = 0;  for (int i = 0; i < 10; i++)  {  if (arr[i]>minNum)  {  minNum = arr[i];  }  }  printf("Minimum number is %d\n Maximum number is %d", minNum,maxNum);      return 0;  } |
| //9. Write a program in C to separate odd and even integers in separate arrays |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  printf("Even numbers : \n");  for (int i = 0; i < 10; i++)  {  if (arr[i]%2==0)  {  printf("%d ", arr[i]);  }    }  printf("\nOdd numbers : \n");  for (int i = 0; i < 10; i++)  {  if (arr[i]%2!=0)  {  printf("%d ", arr[i]);  }    }  return 0;  } |
| //10. Write a program in C to sort elements of [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) in ascending order. |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  int temp = 0;  for (int i = 0; i < 10; i++)  {  for (int j = 0; j <10; j++)  {  if (arr[i]<arr[j])  {  temp = arr[i];  arr[i] = arr[j];  arr[j] = temp;  }    }    }  for (int i = 0; i <10; i++)  {  printf("%d ", arr[i]);  }      return 0;  } |
| //11. Write a program in C to sort elements of the [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) in descending order. |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  int temp = 0;  for (int i = 0; i < 10; i++)  {  for (int j = 0; j <10; j++)  {  if (arr[i]>arr[j])  {  temp = arr[i];  arr[i] = arr[j];  arr[j] = temp;  }  }    }  for (int i = 0; i <10; i++)  {  printf("%d ", arr[i]);  }      return 0;  } |
| //12. Write a program in C to insert New value in the [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) (unsorted list ). |
| #include <stdio.h>    int main()  {  int arr[100] = { 0 };  int i, insertedValue, pos, n = 20;    // initial array of size 10  for (i = 0; i < n; i++){  arr[i] = i + 1;  }    // print the original array  printf("Original Array : \n");  for (i = 0; i < n; i++){  printf("%d ", arr[i]);}  printf("\n");    // element to be inserted  printf("Please insert your number: ");  scanf("%d", &insertedValue);  // position at which element  // is to be inserted  printf("Please input the position: ");  scanf("%d", &pos);    // increase the size by 1  n++;    // shift elements forward  for (i = n-1; i >= pos; i--){  arr[i] = arr[i - 1];}    // insert x at pos  arr[pos - 1] = insertedValue;  // print the updated array  for (i = 0; i < n; i++){  printf("%d ", arr[i]);}  printf("\n");    return 0;  } |
| //13. Write a program in C to delete an element at desired position from an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237). |
| #include <stdio.h>  int main()  {  int array[100], position, c, n;    printf("Enter number of elements in array\n");  scanf("%d", &n);    printf("Enter %d elements\n", n);    for ( c = 0 ; c < n ; c++ )  scanf("%d", &array[c]);    printf("Enter the location where you wish to delete element\n");  scanf("%d", &position);    if ( position >= n+1 )  printf("Deletion not possible.\n");    else  {  for ( c = position - 1 ; c < n - 1 ; c++ )  array[c] = array[c+1];    printf("Resultant array is\n");    for( c = 0 ; c < n - 1 ; c++ )  printf("%d ", array[c]);  }  return 0;  } |
| //14. Write a program in C to find the second largest element in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237). |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  int maxNum = 0;  for (int i = 0; i < 10; i++)  {  if (arr[i]>maxNum)  {  maxNum = arr[i];  }  }  int max2 = 0;  for (int i = 0; i < 10; i++)  {  if (arr[i]>max2&& arr[i]!=maxNum)  {  max2 = arr[i];  }  }  printf("Second max number is = %d", max2);  return 0;  } |
| //15. Write a program in C to find the second smallest element in an [array](https://elearn.daffodilvarsity.edu.bd/mod/resource/view.php?id=948237) |
| #include<stdio.h>  int main(){  int arr[10] = {1, 8, 7, 2, 9, 3, 5,10, 6,4 };  int minNum =arr[1];  for (int i = 0; i < 10; i++)  {  if (arr[i]<minNum)  {  minNum = arr[i];  }  }  int min2=arr[1];  for (int i = 0; i < 10; i++)  {  if (arr[i]<min2&& arr[i]!=minNum)  {  min2 = arr[i];  }  }  printf("Second min number is = %d", min2);  return 0;  } |