

Arrays :-

Arrays refer to a named list of finite number of similar data elements.

Arrays are a way to group a number of homogeneous elements into a larger unit.

Arrays can have data items of simple types like int or float, or even of user-defined types like structures and objects.

Syntax :

return-type array-name[no-of-elements];

Array representation in memory always starts from [0].

Thus, a[50] actually means a[0], a[1],..., a[49].

Arrays can be single as well as multi-dimensional. There is no limit specified for the number of dimensions that an array can have.

Character Arrays (Strings) :-

Just like integers arrays, strings/word/character-arrays can be declared as **arr[20]**.

There is only one difference. At the end of each word, the string is terminated by a null character, '**\0**'. Thus, character arrays are declared one character longer than the largest string they can hold.

Example, to hold 5 characters, the array can be declared as **name[6]**;

Practice Problems :-

1. Write a program to read the marks of 5 students and calculate their sum.
2. Write a function to check whether the given set of integers is a palindrome or not.

Hint : The number 4321234 is a palindrome as it reads the same from left to right and from right to left.