# Arrays

If we declare an array like “ int n[25]; “ , what does it mean?

It means that a memory block of 25 (size of array) x 2 (size of int) = 50 bytes will be allocated in main memory. This memory block is known as array n. We can also draw a diagram for this array as shown below:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| n= | [0] | [1] | [2] | [3] | [4] | [5] |  | [21] | [22] | [23] | [24] |

The array n is further divided into 25 parts (as the size of each part being 2 bytes). These 25 parts are also known as scripted variables namely n[0], n[1], ……. , n[24] where 0,1,2,3,4, …….. 24 are known as index or script (sometimes subscript).

We can directly assign values to these scripted variables such as:

n[0] = 44; n[1] = 54; . . . n[24] = 66;

Alternatively, we can use a loop to input the values of these scripted variables:

for(i=0; i<=24; i++) {

scanf(“%d”, &n[i]);

}