Arrays

Consider a situation where we need to store five integer numbers. If we use programming's simple variable and data type concepts, then we need five variables of int data type and the program will be as follows

ضع في اعتبارك موقفًا نحتاج فيه إلى تخزين خمسة أعداد صحيحة. إذا استخدمنا مفاهيم البرمجة البسيطة ونوع البيانات ، فسنحتاج إلى خمسة متغيرات من نوع البيانات integer وسيكون البرنامج على النحو التالي

```
dim number1 as integer
dim number2 as integer
dim number3 as integer
dim number4 as integer
Dim number5  as integer
```

It was simple, because we had to store just five integer numbers. Now let's assume we have to store 5000 integer numbers. Are we going to use 5000 variables?

Create Arrays

To create an array variable in VB, a programmer specifies the type of the elements and the number of elements to be stored in that array. Given below is a simple syntax to create an array in VB programming –

```
Dim  arrayName (arraySize)as arrayType
```

Dim A(3) as integer

This is called a single-dimensional array. The arraySize must be an integer constant greater than zero and type can be any valid VB data type. For example, now to declare a 5-element array called number of type int, use this statement

```
Dim A(4)as Double
```

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Index of array in memory	0	1	2	3	4	5
Content(Values)of array	95	80	77	65	55	40

The above statement assigns element number 6th in the array with a value of 40. All arrays have 0 as the index of their first element which is also called the base index and the last index of an array will be the total size of the array minus 1.

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Accessing Array Elements

An element is accessed by indexing the array name

```
Dim a(3) As Double

Dim i As Integer
For i = 0 To 3
a(i) = Val(InputBox("enter elements of array"))
Next i
```

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