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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Short Name** | .NET Class | **Type** | **Width** | **Range (bits)** |
| **byte** | [Byte](https://msdn.microsoft.com/en-us/library/system.byte(v=vs.90).aspx) | Unsigned integer | 8 | 0 to 255 |
| **sbyte** | [SByte](https://msdn.microsoft.com/en-us/library/system.sbyte(v=vs.90).aspx) | Signed integer | 8 | -128 to 127 |
| **int** | [Int32](https://msdn.microsoft.com/en-us/library/system.int32(v=vs.90).aspx) | Signed integer | 32 | -2,147,483,648 to 2,147,483,647 |
| **uint** | [UInt32](https://msdn.microsoft.com/en-us/library/system.uint32(v=vs.90).aspx) | Unsigned integer | 32 | 0 to 4294967295 |
| **short** | [Int16](https://msdn.microsoft.com/en-us/library/system.int16(v=vs.90).aspx) | Signed integer | 16 | -32,768 to 32,767 |
| **ushort** | [UInt16](https://msdn.microsoft.com/en-us/library/system.uint16(v=vs.90).aspx) | Unsigned integer | 16 | 0 to 65535 |
| **long** | [Int64](https://msdn.microsoft.com/en-us/library/system.int64(v=vs.90).aspx) | Signed integer | 64 | -9223372036854775808 to 9223372036854775807 |
| **ulong** | [UInt64](https://msdn.microsoft.com/en-us/library/system.uint64(v=vs.90).aspx) | Unsigned integer | 64 | 0 to 18446744073709551615 |
| **float** | [Single](https://msdn.microsoft.com/en-us/library/system.single(v=vs.90).aspx) | Single-precision floating point type | 32 | -3.402823e38 to 3.402823e38 |
| **double** | [Double](https://msdn.microsoft.com/en-us/library/system.double(v=vs.90).aspx) | Double-precision floating point type | 64 | -1.79769313486232e308 to 1.79769313486232e308 |
| **char** | [Char](https://msdn.microsoft.com/en-us/library/system.char(v=vs.90).aspx) | A single Unicode character | 16 | Unicode symbols used in text |
| **bool** | [Boolean](https://msdn.microsoft.com/en-us/library/system.boolean(v=vs.90).aspx) | Logical Boolean type | 8 | True or false |
| **object** | [Object](https://msdn.microsoft.com/en-us/library/system.object(v=vs.90).aspx) | Base type of all other types |  |  |
| **string** | [String](https://msdn.microsoft.com/en-us/library/system.string(v=vs.90).aspx) | A sequence of characters |  |  |
| **decimal** | [Decimal](https://msdn.microsoft.com/en-us/library/system.decimal(v=vs.90).aspx) | Precise fractional or integral type that can represent decimal numbers with 29 significant digits | 128 | ±1.0 × 10e−28 to ±7.9 × 10e28 |

**C# Data Types:-**

|  |  |  |
| --- | --- | --- |
| **PROPERTIES** | **EXPLANATION** | **EXAMPLE** |
| Length | Returns the length of array. Returns integer value. | int i = arr1.Length; |
| Rank | Returns total number of items in all the dimension. Returns integer value. | int i = arr1.Rank; |
| IsFixedSize | Check whether array is fixed size or not. Returns Boolean value | bool i = arr.IsFixedSize; |
| IsReadOnly | Check whether array is ReadOnly or not. Returns Boolean value | bool k = arr1.IsReadOnly; |

### Most common functions of Array class

|  |  |  |
| --- | --- | --- |
| **FUNCTION** | **EXPLANATION** | **EXAMPLE** |
| Sort | Sort an array | Array.Sort(arr); |
| Clear | Clear an array by removing all the items | Array.Clear(arr, 0, 3); |
| GetLength | Returns the number of elements | arr.GetLength(0); |
| GetValue | Returns the value of specified items | arr.GetValue(2); |
| IndexOf | Returns the index position of value | Array.IndexOf(arr,45); |
| Copy | Copy array elements to another elements | Array.Copy(arr1,arr1,3); |