# Operators and Casts

Operators are categorized in the following types as shown in Table.1.

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Operator Type | Operators | Comments |
| 1 | Arithmetic | + - \* / % | Arithmetic Operators Sampledownload |
| 2 | Logical | & | ^ ~ && || ! | Arithmetic Operators download |
| 3 | String concatenation | + |  |
| 4 | Increment and Decrement | ++ -- | Increment- Decrement download  String Concatenation download |
| 5 | Bit shifting | << >> | Bit shifting operators download |
| 6 | Comparison | == != < > <= >= | Comparison operators download |
| 7 | Assignment | = += -= \*= /= %=  &= |= ^= <<= >>= | Assignment operators download |
| 8 | Member Access (for class and structs) | . | Member access operators download |
| 9 | Indexing (for array and indexers) | [] | Indexers operators download |
| 10 | Cast | () | Casting operators download |
| 11 | Conditional (The ternary operator) | ?: | Conditional operators download |
| 12 | Delegate concatenation and removal | +- | Delegate operators download |
| 13 | Object creation | new | Bit shifting operators download |
| 14 | Type information | sizeof(unsafe code only), is, typeof, as, checked, unchecked | Bit shifting operators download |
| 15 | Overflow exception control | checked , unchecked | Bit shifting operators download |
| 16 | Indirection and address | \*, ->, &(unsafe code only ) [] | Bit shifting operators download |
| 17 | Namespace alias qualifier | :: |  |
| 18 | NULL coalescing operator | ?? | Bit shifting operators download  Bit shifting operators download |

**Table.1.** Operators Types and members