

Beginner C++

Data Types

| | |
|--------|---|
| int | Whole numbers |
| float | Decimal numbers |
| double | Double precision decimals (used for money) |
| char | Single characters (denoted by ‘ ’) |
| string | String of characters (denoted by “ ”) |
| void | Function type for use if a function does not return a value |

Operators

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|----|---|
| + | Adds two values |
| - | Subtracts two values |
| = | Assigns a value |
| << | Insertion into an object |
| >> | Extraction from an object |
| ++ | Increments a number* (unary) |
| -- | Decrements a number* (unary) |
| % | Modulus, gives the remainder of division of two numbers |
| == | Tests equivalency |
| | Or, evaluates to true if either side is true |
| && | And, evaluates to true if both sides are true |

* Happens before other operations if placed before a variable, or after all other operations if placed on the end

If Statement

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|---|--|
| <pre>if (condition1) { code1; } else if (condition2) { code2; } else { code3; }</pre> | |
| condition 1 & 2 | A logical statement to be evaluated |
| code1 | Code to be run if the condition1 is true |
| code2 | Code to be run if condition1 is false but condition2 is true |
| code3 | Code to be run if all other conditions are false |

Loops

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|---|---|
| <pre>while (condition) {...} for (init; condition; operation) {...} do { ... } while (condition);</pre> | |
| condition | Logical statement that must be true to continue loop |
| init | Place to initialize variable only in the scope of the loop |
| operation | Place for operation, usually to increment/decrement counter |

Functions

| | |
|---|--------------------------------------|
| <pre>type name(parameters) { code; return data; }</pre> | |
| type | Function's return type |
| parameters | Variables to be sent to the function |
| code | Code to be run inside function |
| data | Data to be returned by the function |