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

+	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

```
if (condition1) {
    code1;
} else if (condition2) {
    code2;
} else {
    code3;
}
```

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

```
while (condition) {…}
for (init; condition; operation) {…}
do { …
} while (condition);
```

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

```
type name(parameters) {
    code;
    return data;
}
```

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