

Lecture 7

Devendra Ghatе

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Code for a successful life...

```
while(life != Dead){  
    workHard();  
    stayFocused();  
    cherishFriendships();  
    rememberToLaugh();  
    sometimes...sayHelloToProfGhate();  
    life++;  
}
```

Relational Operators

Symbol	Operation
<	Less than
<=	Less than or equal to
==	Equal to
>=	Greater than or equal to
>	Greater than
!=	Not equal to

(./20-relationalOperators.cpp)

Logical Operators

Symbol	Logical Operators
&&	Logical And
	Logical OR
!	Not

- Works on boolean variables

(./21-logicalOperators.cpp)

Unary Operators

Symbol	Unary Operators
++	Increment Operator
--	Decrement Operator

```
int x=1;
```

```
x++;
```

```
x--;
```

```
(./22-unaryOperators.cpp)
```

Assignment Operators

Symbol	Assignment Operators
+=	Addition
-=	Subtraction
*=	Multiplication
\=	Division
%=	Modulus

```
double x;  
x = 1; x += 2; // x = x + 2;  
x = 1; x -= 4; // x = x - 4;  
x = 1; x *= 2; // x = x * 2;  
x = 1; x /= 2; // x = x / 2;  
x = 1; x %= 2; // x = x % 2;
```

(./23-assignmentOperators.cpp)

Math Operators

- ▶ Header file `#include <cmath>`

(./19-mathFunctions.cpp)

Looping

- ▶ `for(){},`
- ▶ `while(){},`
- ▶ `do{}while();`

Looping

- ▶ for-loop syntax (./12-forLoop.cpp)
- ▶ Variable for-loop (./13-variableForLoop.cpp)
- ▶ Wrong for-loop (./14-wrongForLoop.cpp)
- ▶ New loop syntax (./15-newForLoops.cpp)
- ▶ Infinite for-loop (./16-infiniteLoop.cpp)