

4.9 — Boolean values

1 ALEX 4 APRIL 7, 2021

Hi epc_jijgdc kêgr Najeam ki mi eymeş qi empe`ceş qi c bep scopromi qeyf_rea_le`ceş liqu c pc beu grf ıyıvc qiNaymayılı miNatın Hışılışının jeç expsor kiNayco qayına ejgiceş qn_p_esqkiNaylım H

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Boolean variables

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```

```
1 | bool b;
```

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```
bool b1 { true };
bool b2 { false };
b1 = false;
bool b3 {}; // default initialize to
false
```

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```
bool b1 { !true }; // b1 will be initialized with the value
false
bool b2 { !false }; // b2 will be initialized with the value
true
```

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Printing Boolean variables

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```
#include <iostream>
int main()
{
    std::cout << true << '\n'; // true evaluates to 1
    std::cout << !true << '\n'; // !true evaluates to 0

    bool b{false};
    std::cout << b << '\n'; // b is false, which evaluates to
0
    std::cout << !b << '\n'; // !b is true, which evaluates
to 1
    return 0;
}</pre>
```

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```
1
0
0
1
```

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```
#include <iostream>
int main()
{
    std::cout << true << '\n';
    std::cout << false << '\n';

    std::cout << std::boolalpha; // print bools as true or
    false

    std::cout << true << '\n';
    std::cout << false << '\n';
    return 0;
}</pre>
```

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```
1
0
true
false
```

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Integer to Boolean conversion

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```
#include <iostream>
int main()
{
   bool b{ 4 }; // error: narrowing conversions
   disallowed
   std::cout << b;
   return 0;
}</pre>
```

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```
#include <iostream>
int main()
{
    std::cout << std::boolalpha; // print bools as true or false
    bool b1 = 4; // copy initialization allows implicit conversion from int to
    bool
    std::cout << b1 << '\n';

bool b2 = 0; // copy initialization allows implicit conversion from int to
    bool
    std::cout << b2 << '\n';
    return 0;
}</pre>
```

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```
true
false
```

Inputting Boolean values

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```
Enter a Boolean value: true
You entered: 0
```

Hręspicytopi

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```
#include <iostream>
int main()
{
bool b{};
std::cout << "Enter a boolean value: ";
// Treat "false" and "true" as booleans
std::cin >> std::boolalpha;
std::cin >> b;
std::cout << "You entered: " << b <<
'\n';
return 0;
}</pre>
```

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Boolean return values

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```
#include <iostream>
     // returns true if x and y are equal, false otherwise
    bool isEqual(int x, int y)
         return (x == y); // operator== returns true if x equals y, and false
     otherwise
     int main()
 5
         std::cout << "Enter an integer: ";</pre>
 6
         int x{};
         std::cin >> x;
         std::cout << "Enter another integer: ";</pre>
         int y{};
         std::cin >> y;
         std::cout << std::boolalpha; // print bools as true or false</pre>
10
         std::cout << x << " and " << y << " are equal? "; std::cout << isEqual(x, y); // will return true or false
12
         return 0;
13
```

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```
Enter an integer: 5
Enter another integer: 5
5 and 5 are equal? true
```

```
Enter an integer: 6
Enter another integer: 4
6 and 4 are equal? false
```

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Leave a comment... Put C++ code between triple-backticks (markdown style):```Your C++ code





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589 COMMENTS

