

# Boolean

This lesson discusses the boolean data type.

## We'll cover the following



- Boolean
  - Example
    - Explicit Definition
    - Implicit Definition
    - Result of an Expression
- Quiz

## Boolean #

The boolean variable can take a value either **true** or **false**.

✔ **True**

❑ **False**

## Example #

The following code explains how to define a boolean variable in three different ways:

### Explicit Definition #

The following code explicitly defines the variable using the `bool` keyword:

```
fn main() {  
    //explicitly define a bool  
    let is_bool:bool = true;  
    println!("explicitly_defined: {}", is_bool);  
}
```



## Implicit Definition #

The following code implicitly defines the boolean type of a variable by assigning the value `true` or `false` to the variable.

```
fn main() {  
    // assign a boolean value  
    let a = true;  
    let b = false;  
    println!("a: {}", a);  
    println!("b: {}", b);  
}
```



## Result of an Expression #

The result of an expression that evaluates to either true or false (for example a comparison of two values) can be assigned to an implicit boolean variable.

```
fn main() {  
    // get a value from an expression  
    let c = 10 > 2;  
    println!("c: {}", c);  
}
```



## Quiz #

Test your understanding of boolean data type in Rust!

### Quick Quiz on Boolean!



What is the output of the following code?

```
let value = 13 > 20;  
println!("{}", value);
```

[Retake Quiz](#)

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Now that you have learned about boolean data type, let's learn about character and string data type in Rust in the next lesson.