



Decision Making

Decision-making structures require that the programmer specify one or more conditions to be evaluated or tested by the program, along with a statement or statements to be executed if the condition is determined to be true, and optionally, other statements to be executed if the condition is determined to be false.

Types of Decision-making statements

1. If....else
2. else....if
3. match statement

if....else

An if statement can be followed by an optional else statement, which executes when the Boolean expression is false. If the Boolean expression evaluates to true, then the if block will be executed, otherwise, the else block will be executed.

```
fn main(){
    let num = 10;
    let num2 = 20;
    if num == num2 {
        println!("Yes this is correct");
    }
    else{
        println!("No not at all");
    }
}
```

else....if

The else...if ladder is useful to test multiple conditions.

```
fn main(){
    let num = 10;
    let num2 = 20;
    if num == num2 {
        println!("Yes this is correct");
    }
    else if num < num2 {
        println!("ok");
    }
    else{
        println!("No not at all");
    }
}
```

Match statement

The match statement checks if a current value is matching from a list of values

```
fn main(){
    let number = 4;
    match number{
        // match a single value
        1 => println!("one"),
        // match several value
        2 | 3 | 4 | 5 => println!("value is between 2 to 5"),
        // match an inclusive range
        6..=10 => println!("13..19"),
        // handle the rest of a case
        _ => println!("Ain't special"),
    }
}
```