

if..else

01

Flow Control

02

Usage w/Operators

03

Statement Initialization

Flow Control

- | Program code executes line-by-line
- | Flow control is a way to interrupt this process
 - | Different lines of code can be executed based on conditions
- | Conditions are programmer-defined and can be as many as needed

if..else

```
if condition {  
    // do something  
}
```

```
if condition {  
    // do something  
} else {  
    // do something else  
}
```


if..else: Example

```
if userName != "" {  
    // process user name  
} else {  
    // display error message  
}
```

```
if userName != "" {  
    // process user name  
}
```

if..else if

```
if age >= 21 {  
    // permit entry  
} else if parentalApproval {  
    // permit entry  
} else {  
    // cannot enter  
}
```

Logical Operators

```
if hasTicket && ticketValid {  
    // permit entry  
}  
  
if funds > cost && accountActive {  
    // allow transation  
}  
  
if usingDebitCard || usingCreditCard {  
    // display card # entry screen  
}  
  
if !quizComplete {  
    // display incomplete submission  
    // warning  
}
```


Usage With Functions

```
if temperature("freezer") > 0  
    // display alert  
}
```

```
if temp("freezer") > preferredTemp("freezer") {  
    // display alert  
}
```

Statement Initialization

```
if i := 5; i < 10 {  
    // do something with i  
} else {  
    // do something else with i  
}
```

```
if rank := getUserRank(); rank == "admin" {  
    // do admin stuff here  
} else if rank == "manager" {  
    // do manager stuff here  
} else {  
    // display error message  
}
```


Early Return

- | Use "early return" to stop processing within a function as soon as possible
- | Maximizes performance
- | All data needed for the function is ready after error checking
- | Clean code

Early Return: Example

```
token, err := getSession("alice")  
if err != nil {  
    return  
}
```

```
cart, err := getCart(token)  
if err != nil {  
    return  
}
```

```
// ok to process shopping cart
```

Recap

- | Flow control is a way to change which lines of code execute
- | **if..else** can be used to conditionally execute code
 - | Using **else if** allows for testing multiple different conditions
- | **if** can be used with the return values from function calls
- | Logical and equality operators can be used with **if**
- | **Statement initialization** allows for a variable to be created and tested within the scope of an **if..else** block
- | **Early returns** should be used when possible for efficiency and code clarity