



More Conditionals

Else if and else..

Duration: 30 minutes

Q&A: 5 minutes by the end of the lecture

```
function signin(username, password) {  
  // todo: write some code...  
  
}
```

Let's explore the concept of **conditional statements** by writing a function that will welcome a user when given the correct username and password.

```
function signin(username, password) {  
  if (username === 'jalehman') {  
  
  }  
  
}
```

We've encountered the if statement before. We'll evaluate a conditional expression and execute the code contained therein. But in this case, we have two conditions we'll need to evaluate. How can we handle this case?

```
function signin(username, password) {  
  if (username === 'jalehman') {  
    if (password === 'CorrectHorse') {  
  
    }  
  
  }  
}
```

One approach would be to put another if statement inside our original if statement. You could say that the second if statement is “nested” inside the first one.

```
function signin(username, password) {  
  if (username === 'jalehman') {  
    if (password === 'CorrectHorse') {  
      return 'Welcome, Josh!';  
    }  
  }  
  
}
```

This innermost line of code will only be executed if the password matches “CorrectHorse”, a condition which itself will only be evaluated if the username is “jalehman”

```
function signin(username, password) {  
  if (username === 'jalehman') {  
    if (password === 'CorrectHorse') {  
      return 'Welcome, Josh!';  
    }  
  }  
  
}
```

Q: Can you identify a way to rewrite this code to only use one if statement?

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  }  
  
}
```

A: We can write a compound expression! We'll use the **Logical AND** operator to evaluate two different expressions. If both of them are true, the entire expression will be true and the code inside will be executed.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  }  
  
}
```

Before we move on, let's fix our indentation...


```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  }  
  
}
```

...and adjust our whitespace.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  }  
  
}
```

All better! What if we wanted to support an additional user? How could we handle the possibility of signing in as either person?

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (  
  
  ) {  
  
  }  
  
}
```

We can use an else if statement! This will allow us to evaluate a second conditional expression if our first condition evaluates to false.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (username === 'beth' && password === 'BatteryStaple') {  
  
  }  
  
}
```

Using this syntax, our program will first check to see if the username and password belong to Josh. If that check fails, The interpreter will then check to see if the username and password belong to Beth.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (username === 'beth' && password === 'BatteryStaple') {  
    return 'Welcome, Beth!';  
  }  
  
}
```

If that second conditional evaluates to true, we'll execute the code contained inside our else if statement.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (username === 'beth' && password === 'BatteryStaple') {  
    return 'Welcome, Beth!';  
  }  
  
}
```

Let's add one more thing: a value to be returned if neither of the username/password combinations are correct. How can we accomplish this?

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (username === 'beth' && password === 'BatteryStaple') {  
    return 'Welcome, Beth!';  
  } else {  
  
    }  
  
}
```

We can use the **else statement**! Any code contained in this statement will only be executed if none of the conditionals which immediately precede it evaluate to true.

```
function signin(username, password) {  
  if (username === 'jalehman' && password === 'CorrectHorse') {  
    return 'Welcome, Josh!';  
  } else if (username === 'beth' && password === 'BatteryStaple') {  
    return 'Welcome, Beth!';  
  } else {  
    return 'Access Denied';  
  }  
  
}
```

Now our function will return “Access Denied” if a user fails to sign in as either Josh or Beth.



That's it