**CT4009**

# JavaScript — Functional Testing & Form Validation

**Andy Bell**

# What we'll cover today

- Form validation

- Form validation example

- What is testing?

- Types of testing

- Cypress

- Cypress example

# What is form validation?

- We check that the user inputted the right data

- It benefits us because we get less bad data

- It benefits them because it provides a better user experience long term

# Tools

- Native HTML validation
- JavaScript
- Server-side

# Live Coding Example 1

I'm going to show you the following example.

We'll:

- Take an existing form

- Run some validation

- Use both native HTML validation and JS validation

**Completed example**

**https://codepen.io/hankchizljaw/pen/wQQqgL**

# Testing

JavaScript — Functional Testing & Form Validation

# What is testing?

- We're checking our code does what it's supposed to do

- Can be automated with more code

- Can also be done manually

# Types of testing

- Unit Testing
- Integration Testing
- Functional Testing
- System Testing
- Stress Testing
- Performance Testing
- Usability Testing
- Acceptance Testing
- Regression Testing
- Beta Testing

# Functional testing

We're going to test the functionality of our contact form using **functional testing**.

- We determine what our outcomes should be

- We create a test

- We assert this by "mocking" the user-experience

- We check our outcomes

- It either passes or fails

# Cypress

- Cypress is a complete testing tool that allows us to write functional and integration tests.
- It runs in a browser and uses Node JS
- It gives you a very realistic test
- It's great for testing key functionality like signup forms
- It's quickly becoming industry standard

**https://www.cypress.io**

# Live Coding Example 2

I'm going to show you the following example.

We'll:
- Run Cypress
- Use it to test our form validation

**Completed code:**

**https://github.com/hankchizljaw/CT4009-javascript-functional-testing-and-form-validation-cypress-demo**

# Recap

- We learned what form validation is and what tools we can use

- We added some validation to a contact form

- We learned what testing is and what types there are?

- We learned what Cypress was and implemented a test for our contact form