Day 20 Revisit

* React Forms Validation
* Client Side Validation (HTML 5 required, readonly, min, max, minlength, maxlength, pattern)
* JS code Validation
* Classnames NPM module
* Adding error object in state will help you to know the errors in the form.
* Recommended place (event) for adding validation code – onBlur not onChange
* Handling API calls in React (AJAX – XMLHttpRequest, Fetch(), AXIOS [3rd party library])
* Axios Demo using some public API (reqres.in, jsonplaceholder)
* Promise – (Object whose value is not determined initially and will get it value at a later point of time)
* Way of handling Async Operations (Call back mech, Promise, Observables)
* Sync – blocking operations
* Async – Non-blocking (Parallel)

<https://mayallo.com/asynchronous-javascript/>

<https://www.geeksforgeeks.org/how-does-asynchronous-code-work-in-javascript/>

* Redux (State management tool) -It’s a small library for managing the state from a central place.
* Store, Actions, Action Creator, Dispatch(), ActionDispatcher
* configureStore, middleware operations
* Some example on Redux.
* Testing of React
* Unit Testing, Integration Testing, e2e(End to End) Testing
* Unit Testing – <https://blog.bitsrc.io/testing-your-react-components-step-by-step-2ce9c3b4f299>
* React Testing – JEST (<https://jestjs.io/docs/tutorial-react> )
* Integration Test – Cypress <https://www.cypress.io/> (automated Testing)

Day 21 Agenda

* Introduction to Behavior-Driven Development
* Test-Driven Development as a Design Tool
* TDD & BDD in Real-World Setting, TDD Beyond
* Creating TestRunners to Execute Tests
* How to Write Feature Files with Gherkin Language
* Introduction to Cucumber
* More about e2e Testing
* Selenium (Overview)
* Creating Tags to on Feature File
* Features and Scenarios: Given-When-Then Outline
* Overview of Selenium Webdriver, pros and cons, Extracting Xpaths, CssSelectors
* Downloading and configuring Java WebDriver in eclipse, WebDriver Interface,
* Working with Firefox, Chrome browsers
* Identifying Web-Elements using id, name, linkname, class, xpath, tagname
* Handling Input box/buttons, list/selection/drop down boxes, radio buttons

BDD – Behaviour Driven Development.

Cucumber - <https://cucumber.io/> - Automated Test Platform to implement BDD.

Feature files in Gherkin Lang.

BDD – Acceptance Test Cases.

Testing Pyramid - Unit Testing, Integration Testing, e2e Testing

Important Terms in Cucumber

* Feature File
* Feature (Tags)
* Scenario
* Step Definition (GIVEN, WHEN, THEN) – Written in Gherkin Lang (Natural/Simple English)

User Story

As a, \_\_\_\_\_\_,

I want to, \_\_\_\_\_\_\_\_\_\_\_\_\_,

So that, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

As a <type of user> I want to <do something> So that I can <get some result or benefit>

Cucumber Feature File

Scenario :

GIVEN:

WHEN :

THEN :

Cucumber & Selenium Testing Tools

Cucumber is a BDD based Testing Tool, Also used for Automation.

Selenium is a Automation Testing Tool.

Selenium – Automates Browser Testing.

* Selenium Web Driver (Helps to write automation test cases in the fav. Programming lang.)
* Selenium IDE (Helps to Record all the test based on the actions in the browser)

Selenium 4.15 (Web Driver – Java)

<https://www.tutussfunny.com/spring-boot-with-react-mongodb-database-full-stack-project/>

<https://googlechromelabs.github.io/chrome-for-testing/>

Chrome web driver download URL (win64)

<https://edgedl.me.gvt1.com/edgedl/chrome/chrome-for-testing/119.0.6045.105/win64/chromedriver-win64.zip>

<https://reflectoring.io/build-responsive-web-apps-with-springboot-and-react-tutorial/>