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/