Day 14 Revisit

- Monolith VS MicroService
- Monolith (Tightly Coupled service Layers)
- MicroService (It's SOA Pattern – Service Oriented Architecture)
- Spring Cloud
- Different ways of configuring in Spring boot (application.properties/yml, using the @Configuration, Adding dependency in pom.xml)
- Adding schema.sql, data.sql file in resources folder will help to initialize the h2 db tables with some sample content. This will help for DB layer testing.
  https://www.springboottutorial.com/spring-boot-and-spring-jdbc-with-h2
  https://howtodoinjava.com/spring-boot/h2-database-example/
- Spring Service Registry (Service Discovery) – Eureka (Netflix), Consul, ZooKeeper (8761)
- @EnableEurekaServer – properties register-with-eureka, client-fetch-registry "false"
- @EnableDiscoveryClient - Demo
- API Gateway – Demo for that
- API/End point Testing Using Postman, Curl & Swagger3 (OpenAPIDocumentation) – Demo
- Circuit Breaker (Fault Tolerance), Hysterix
- Spring Actuator
- Spring Profile – High level Overview
  https://howtodoinjava.com/spring-boot/spring-profiles/
- Load Balancer (Spring Cloud Load Balancer, Ribbon/Zuul) -
  https://www.geeksforgeeks.org/spring-boot-microservices-load-balancing-using-netflixs-ribbon/
  https://www.netjstech.com/2023/10/spring-boot-microservice-load-balancing.html
- Open Feign & Hysterix (API – Routing) https://www.baeldung.com/spring-cloud-openfeign
  https://www.geeksforgeeks.org/spring-cloud-openfeign-with-example-project/

Day 15 Agenda

- HTML/CSS Introduction
- DOM
- Media Queries
- Object based Features
- JS Introduction

- Introduction To Web Development
  - How web applications work
  - An introduction to HTML and CSS
  - Tools for web development
  - How to view deployed web pages
  - Five critical web development issues
  - The HTML syntax
- Images
  - Basic skills for working with images
  - Advanced skills for working with images

- o Related skills for working with images
- o Using Media Queries
- Forms
  - o How to use forms and controls
  - o Other skills for working with forms
  - o How to use the HTML5 features for data validation
  - o How to use the HTML5 controls
  - o A web page that uses HTML5 data validation
- Using CSS to format the elements of a web page
  - o An introduction to CSS
  - o Measurements and colors
  - o Selectors
  - o Cascading Style Sheets
  - o How to work with text
  - o A web page that uses external style sheets
  - o Introduction to media queries

Who is creator of HTML

- Tim Berners Lee
- WWW – World Wide Web (Internet) – Interconnection of Networks
- Network – For sharing data/resources
- HTTP – HyperText Transfer Protocol
- Client – Server Concept (Request & Response Object)
- Http/FTP/SMTP/POP/TCP
- One way communication (Email)
- Two Way Communication (Chats/Meeting)
- Web Client (Browser – Any Smart Devices) – Google Chrome, Mozilla Firefox, Microsoft Internet Explorer/Edge, Opera, Apple Safari

3 Engines in Browser (Http Client) – Helps sending & receiving data (In digital form) using Http

- HTML Rendering Engine (Dealing HTML code)
- CSS Styling Engine (Dealing CSS code)
- Scripting Engine (Dealing JS Code)

HTML is very friendly language. W3cschool

Html documents will have head and body section

RWA – Responsive Web Application

SPA – Single Page Application (Component based Architecture)

Web Page – Is a Single HTML Document

WebSite – Is a combination of many web pages

Deployment -

HTML is a Tag based Language (Markup)

HTML is case and space in-sensitive

Self Closing Tags (br, hr, input)

Element – Combination of tag along with the data

Attributes – Meta data of html tags, usually added in the opening tag, which helps to define the properties in the form of key value pair.

Events – Actions performed on the UI by the user. (Single click, double click, key press, focus, hover)

Events Handler – methods to handle the events

HTML forms – Http Methods (get & Post)

CSS – Cascading Style Sheet (Styling to HTML element)

CSS Selector – styles to the HTML element

1) Inline (In the tag itself, there is an attribute called style)
2) Internal (There is a tag called style, we used to define the style)
3) External (create a separate css file and add it to the html document) – Recommended**

Create a Single page to display images (Image library) – Use bootstrap