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