Full Stack Java Developer Assessment

Section A

1. Design and code a simple CRUD app for a medical register with fields such as Name, Age and Medical History, with assumption of LDAP integration of Auth0 using Spring Boot backend (version 3) and xhtml frontend.
2. Enhance your solution with logging or audit features (Optional).
3. Enhance your solution with automated testing suite and test cases.
4. Design and implement CICD for the application.
5. Prepare a 1-page design brief on the above application with your assumptions, integration considerations and if any future considerations for the expansion of the application.

If there is any uncertainty or missing in detail, state your own assumptions to complete the above.

Section B

Design a 3-tier web application (Front-end, Back-end, Data layer), which scales up and down based on website traffic. The final infrastructure should consider various components that are available in a major public cloud. Please state in design characteristics of various components like Load Balancing Algorithms, Security Controls (NACLS, Firewall, etc), Encryption algorithms, Network Topology, Logging, Metrics, Alerts, Backup policies, Fail-over mechanisms, CI/CD and other infrastructure features which ensure the system is production ready and secure by design.

Note:

- If anything is unclear, you may set reasonable assumptions and state at the start of the design.
- You may do any vendor lock-in for clouds and various external services like DataDog and etc. However, vendor-lock is not mandated.
- You may assume either Compute Bound or Memory Bound for the application.

Expected:

Architecture Diagram and Documentation

Submission: Provide a Git repository link for this assessment.