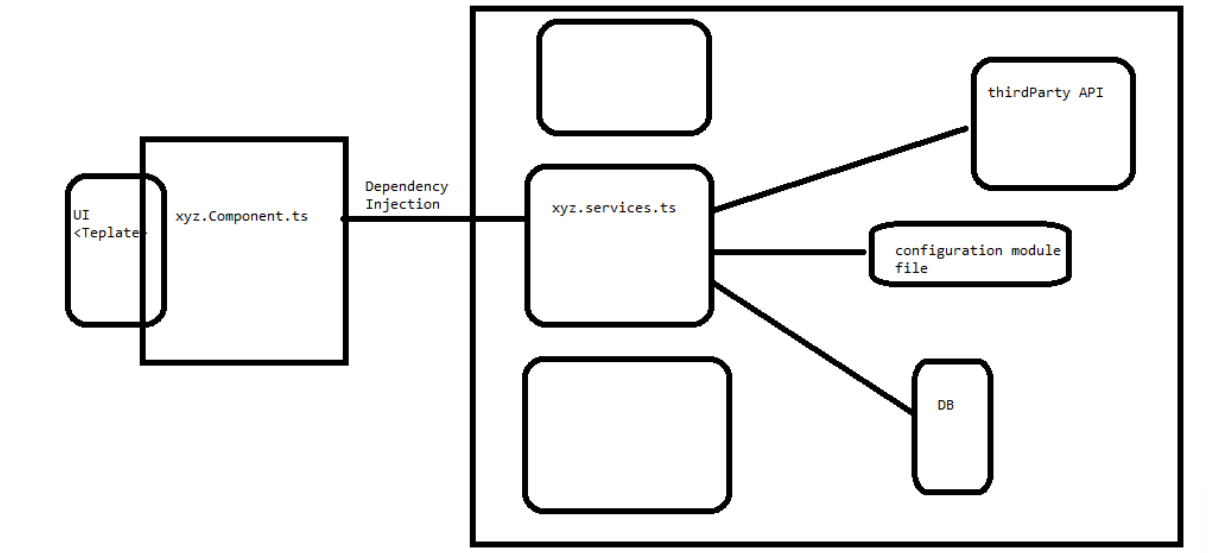
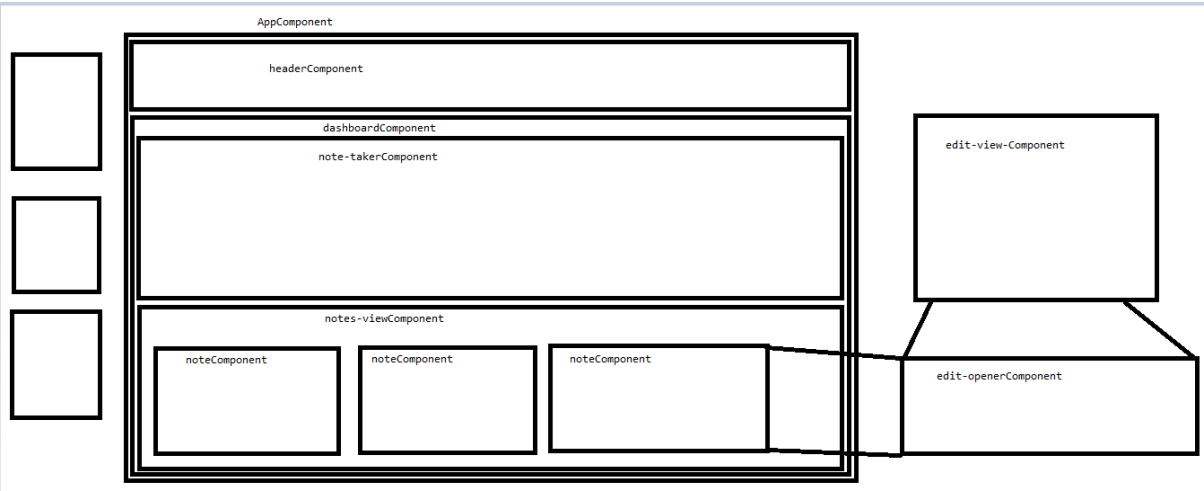
1. Project Discussion
    a. UI
        i. Technologies
            1. Angular
                a. HTML
                b. CSS
                c. Bootstrap
                d. TypeScript (JavaScript)
        ii. Implementations
            1. Components (UI + Backend logics)
            2. Services
            3. Forms (Choosing correct set of forms)
            4. Routing (Routing as per requirement to correct view)
            5. Component interaction
            6. Usage of directives, Pipes
            7. At least write few test cases

        iii. Presentation and Documentations
            1. UI architecture diagram to demonstrate the flow or alignment of components with their respective services on the slides
            2. If possible, add few working screen shots on the slides

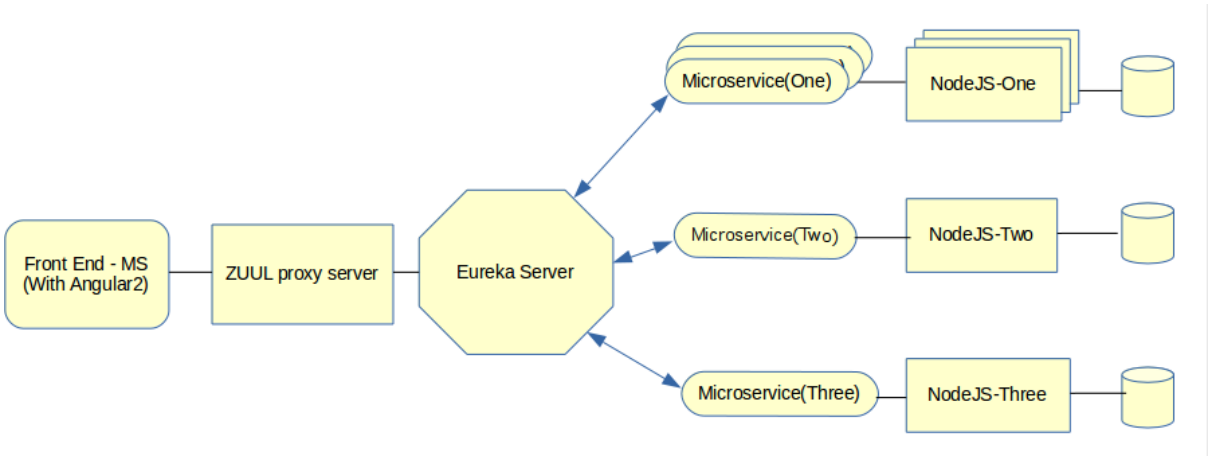


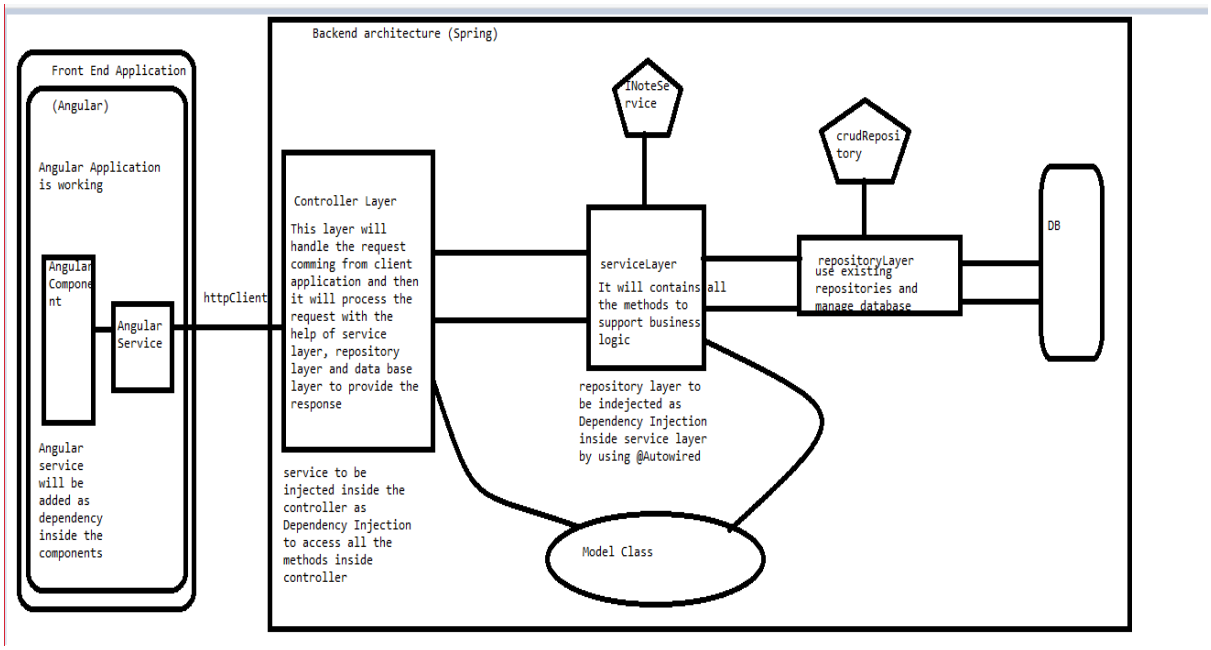


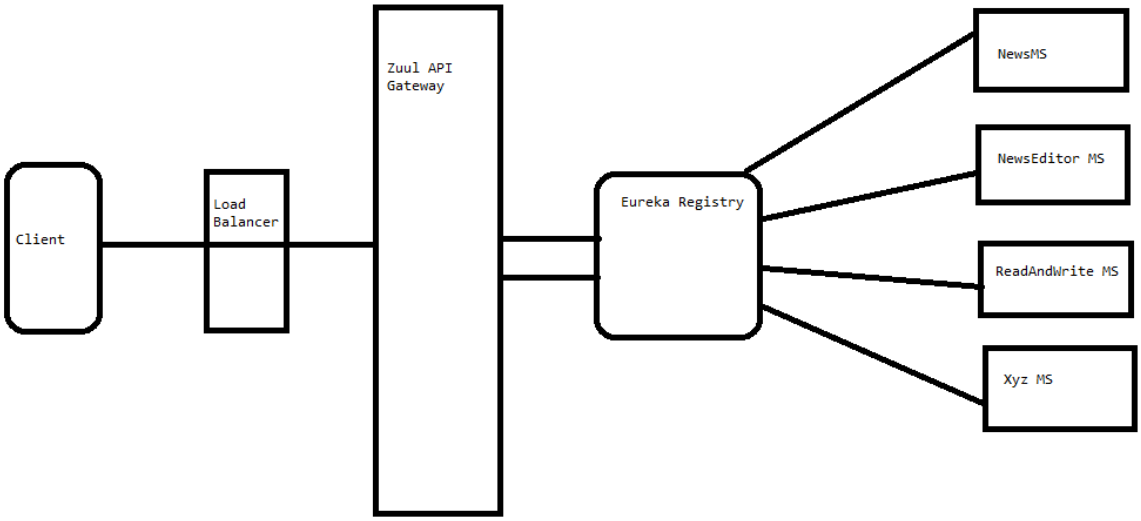
b. Backend services
    i. Technologies
        1. Core Java with Java8 features
        2. SQL
        3. Spring boot
        4. Microservices (communications and architectural pattern) using Spring Boot and Spring Cloud
        5. Database
    ii. Implementations
        1. Microservices
            a. Discovery Server
            b. API gateway
            c. Circuit breaker
            d. Load Balancer
            e. Tracing
            f. Synchronous and asynchronous communication
                i. Messaging
            g. API documentation (Swagger)
            h. Testing (TDD) JUNIT and Mockito
        2. Databases
            a. SQL related RDBMS (MYSQL)
            b. NOSQL related DB (MongoDB, DynamoDB, CosmosDB)
        3. Database Operations
            a. CRUD
            b. Search functionality
            c. Personalizing the data by creating separating service
        4. Security, Logging and Tracing
            a. Token based security
            b. Log the required information
            c. Trace the data which is can used for maintenance purpose

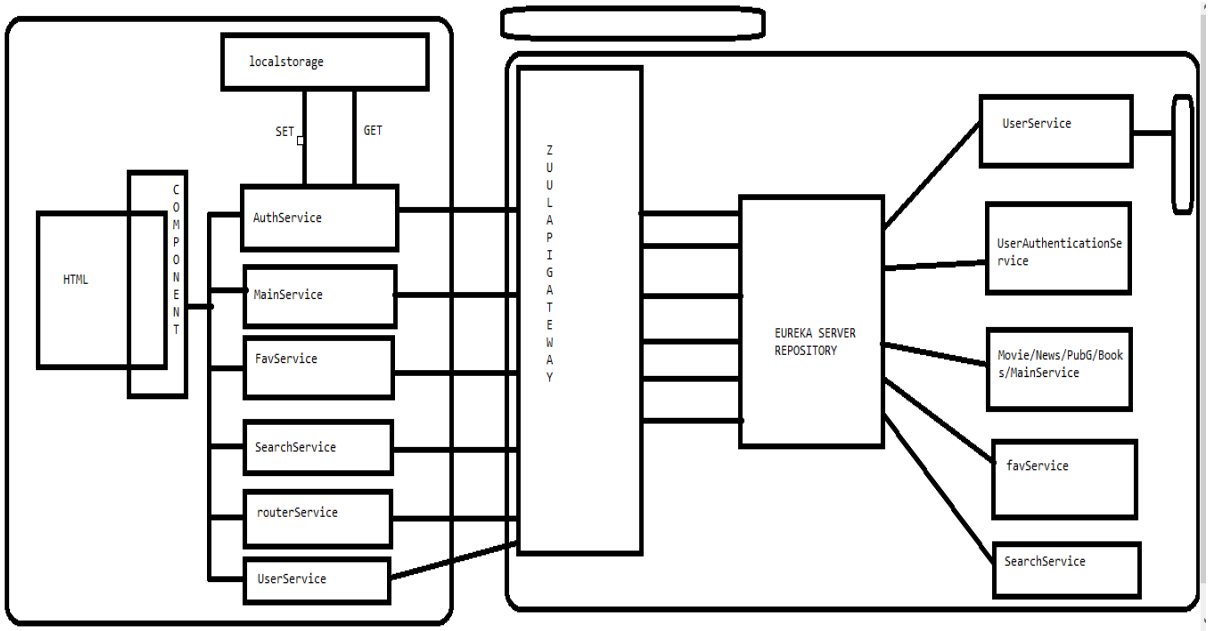
iii. Presentation and Documentations

1. Backend architecture diagram to demonstrate the flow or alignment services and then connectivity with repositories (DB) on the slides
2. If possible, add few working screen shots on the slides









c. Deployment
    i. CI
    ii. Docker / Kubernetes, it will be good if using cloud

1. Discussion related to Project
    a. There must be Login and registration page so whenever the application will start it must take the user to the login page
        i. If User is existing user can login and based upon the login Bearer Token must be generated and by using that Bearer Token user must be able to perform the further operations.
            1. User and Login information must be stored inside RDBMS (MYSQL)
            2. There will be separate service for user management in spring
            3. There will be separate service for user authentication in spring use JWT
        ii. If user is not the existing user then user must register first and then login for further operations like
            1. Fetching the data from main third-party API and display the selective data inside a main page, and in the main page provide the option for add the data as your favourite data
            2. Add the data to the favourite inside local document-based database
            3. Display the favourite data by using favourite Page
            4. In the favourite page along with the data you must have the option related to remove from favourite and update the information in the favourite. There will be separate service for favourite using spring.
            5. You must allow the user to update and delete the data based upon their authentication.
    b. Search functionality for searching any data in the main page, you may create a separate service for the same
    c. Page must be responsive and user friendly
        i. Proper Size and alignment for the data must be used
        ii. Proper colour combinations to be used
        iii. Proper Layout must be implemented

2. Spring Boot and Microservices: Create these services and check the functionalities of these services using any Client tool like postman. After that complete the final integration with front end UI by specifying the CORs policy.

3. Project Presentation PPT must contain following slides.

    a. Quick introduction about the project team
    b. Quick introduction about the project and its requirement
    c. Complete architectural diagram of project
        i. Main diagram to represent the complete flow
        ii. Sub diagram only for UI representations followed by components, services, and their relationship
        iii. Sub diagram of backend services followed by microservice architecture layers and microservice communications
    d. Features of your application, what is currently working and what is the scope of future enhancement keep time factor in the mind
    e. Screen shots of implementations of UI
    f. Acknowledging and thanking the effort of project team and mentors