Assignment: Designing Web Server Setup & Deployment Strategy

The assignment focuses on designing the setup and deployment strategy for a web application consisting of a frontend and a single backend service running on the same server.

Service Details:

Backend Application:

Build or Use Java 17 based application which uses any version of Spring framework & uses gradle as a build automation tool.

- Repository URL : (sample)https://github.com/example/backend
- Dependency: Java 17
- Application Build Command: Located in the repository base folder, the command `./gradlew build` is executed. This creates a directory named "build" containing the file "app.jar."
- Application Path on Server: /var/www/backend/
- Application Run Command: Executing `java -jar /var/www/backend/app.jar` starts the backend service, automatically listening on port 8080.

Frontend Application:

- Repository URL : (sample)https://github.com/example/frontend
- Application Path on Server: /var/www/html/index.html

Server Configuration:

- The server accepts requests only on port 80.
- All URLs starting with "api/" are directed to the backend service, while other requests are served by the frontend.

Expected Output:

1. Configuration Setup: Provide either a shell script or Docker setup to configure the web server according to the specified requirements.
2. Backend Deployment Strategy: Develop a deployment strategy for the backend application considering the following inputs:
    - Branch name
    - List of server IPs

3. Include relevant scripts that form part of the deployment process.

4. Infrastructure Write-up: **Submit a brief write-up** (~2 paragraphs) outlining the infrastructure setup required to efficiently route traffic to the web server. Focus on scalability, maintainability, and reliability aspects.