Introduction

Extend your previous project (or create a new one) with robust security features, performance enhancements, and full cloud deployment.

Requirements

1. Functionality

- Allow users to log in, view, and update their profile.
- Implement user roles (e.g. admin vs user) with appropriate access control.
- Include a logout function.

2. Security

- Hash and salt passwords (using SHA-256 or bcrypt).
- Encrypt sensitive data (e.g. user preferences or contact details).
- Enforce authentication and authorisation: only logged-in users can access protected areas.

3. Performance & Monitoring

- Use a JDBC connection pool for efficient database access.
- Log key events such as logins, errors, and failed access attempts.
- Handle server errors gracefully.
- Optimise the app for speed and reliability in production.

4. Deployment

- Package your application with Maven and generate a WAR file.
- Deploy your application to a cloud platform (e.g. Render).
- Ensure the cloud version is fully functional and matches your local build.

Submission

Submit on Google Classroom.

Also push your code to GitHub (set to public) and include the repo link in your Classroom submission.