Conception blueprint of Java and Web Development project

The project would aim at serving data from a SQL database to the front end for the user.

This project aims to serve employee data, like name of the employee, the job title of the employee, deployment zones, identifications of the workgroups.

The target audience is mainly companies to keep track of their employees easily from a browser. The server can be deployed in the company anywhere if the server itself is reachable from the other computers. The access to the database would be protected by login credentials that limits the access to only people with high enough clearance level. The architecture of the system would be focused on being light weight and portable, cause java itself promotes this behaviour. This also means that there is fast and easy installation of the project. Cause of this almost anybody can install this software. The query of the data would be abstracted to the normal user, and custom SQL query and execution would be allowed for high clearance users. This allows high control over the database securely for data engineers or system administrators.

For the SQL database management, I would use SQLite version 3, cause it's easy to integrate into java using JDB, and it has no installation requirements. The java version I would like to opt for Java version 8, because it's commonly used in enterprise deployments. Frontend would be written in HTML, Javascript and with either pure CSS or Bootstrap.css. The later would make responsive website design easier. Communication between frontend and backend is planned to be done using a REST-like architecture, where the server only serves the frontend based on the data that is provided in the request, to save resources on the back end. Authorization can be transferred via http headers, additional information like request parameters or authorization tokens (to try to combat the authorization every time) can be transferred either in a custom header, or in the request URL. XMLHttpRequest allows similar requests for database data like the original html file query.