# Web-App to keep track of employee leave requests

***Initial Approach:***

1. The user will be taken to signup page/login page and they will be able to transfer between those two screens.
2. The user should register before accessing the application.
3. Once registered, they can login and will be taken to a screen where they can request for leave/vacation.
4. This request is then saved into the DB.
5. Jsp’s were used to display the data to the user.
6. Form post was used to invoke the controller to collect the data in the backend java layer to process.
7. Controller would be responsible for all the validations and business logic and will use data access layer to perform the DB operations.
8. Data access layer is then sub-divided to be responsible for all the DB updates.

***Paths Forward:***

1. Create a DB based on the budget and the requirement.
2. Depending on the need, can switch to Hibernate/other implementations rather than sticking with JDBC.
3. Make sure the app is up and running.
4. Adding audit details to the application, which helps in recalling
   1. For whom & when the request was made.
   2. By whom & when the approval of request took place.
5. Including CSS & JS for enhanced look & feel of the application.
6. Make use of HTML5 to increase the benefits of handling data at the front end level.
7. Adding more screens to let the admin approve the requests & view pending requests.
8. Improved exception handling and presenting the error details to the user, so that they can give the required input in an acceptable way.
9. Not allowing duplicate requests.
10. Based on complexity of the application, can introduce different frameworks to ease the burden on configuration issues.
11. Reporting tools can be brought into picture to let the admin view the past requests of an employee/all the employees.
12. This helps in understanding the workforce availability and workload analysis.
13. Letting admin request on behalf of an employee, make the site more tablet/mobile friendly. Introducing mobile apps.