**Java-FLP Cloud project – Real-estate *(Magic Bricks like application)***

**INDEX**

**Approach and execution process**

**About Real-estate (a brief or macro level requirement)**

**Modules (List of modules)**

**Technology and architecture**

APPROACH AND EXECUTION PROCESS

APPROACH

* No Of Groups : 5
* The whole Case Study project will be divided into 5 modules.
* Each module will be developed as a micro service by one group.
* And each group of JEE Cloud will work on an individual module.
* Each module will share a common database. The architecture and package structure (nomenclature) must be the same for everyone.
* Once the individual functionality is realized, it will be integrated in one system and upon successful integration, it will be deployed for project evaluation.
* In Initial development all Micro services including angular front end will be integrated and tested on local Machin.
* After that in case of open internet access, deploy all micro service in each Docker container. And run each Docker container on single Ec2 machine.
* Complete integrated Angular front end application will be deployed on local machine.

PROCESS (DAY WISE MILESTONES)

**Day 1 and 2:-**

* Project mentor will brief the associates about the different modules, and will assign each associate a unique module (as every associate will be working on a unique module)
* Associates will come up with data model (since everyone will be using only one database); the data model will be reviewed by mentor(s)
* So on day one - Module distribution and final DB model should be decided
* Product backlog and sprint backlog should be created by teams and share with Batch mentor by EOD.
* Create daily Scrum Chart team wise.
* The Associates will create a user-story (a low level requirement document, in which they will mention - the functionality they are going to work on and on how the end user will use it(all the constraints and exceptions will be there) This will be a one or two page document. It will send a user-story template for better understanding.
* We will provide the architecture; and the associates need to understand it, and run a dummy flow to ensure that they have understood the above said architecture and are able to use it
* So the day target will be - ensuring the understanding of the functionality and architecture

Day 3:-

* All associates will present a white board presentation to the mentor(s) and the whole batch. Here each associate will describe - what he/she is going to build and how. Which all tables (DB) are going to be affected and what dummy data will he/she be using etc. Basic idea of this exercise is to ensure that - everyone (developer, team mates and mentors) are on the same page in terms of requirement and approach. Here the mentor may prevent any future mistake that might come out of misunderstanding of requirement or out of wrong approach.
* UI (layout, color coding, look and feel etc) will be discussed on this day only
* Use Spring boot rest controller to distribute data.
* One of the possible findings of this discussion may be some changes in the DB. So final database creation will be last task of the day.
* Associate will send final draft of their individual user story to mentor(s) for review.
* By day 2, the DB model (database), page layout, HTML, architecture (SpringBootMVC), package structure is ready. Now the associates will create dummy data in database and will start real work on their respective modules and complete by Day 3 only.

**Day 4, 5, 6:-** Integration and testing and Deployments and UAT by mentor(s)

**Day 7:**- Sprint Review and Sprint retrospective.

**A BRIEF ON Real-estate Application**

**ABOUT Real-estate**

To create a real estate app like Magic Bricks. The application can be made as Web Application. There are 2 entities User and Admin.

It is recommended that despite the present functionality of the designed software, an additional functionality such as the use of E-mail to send bill and notifications to the customer and an online payment using credit cards/debit cards should be implemented into the system.

**Macro level Operations/offerings:**

1. **Signup, Login or Logout, Change Password, Forgot password, Password Encryption**- as Spring Boot Rest endpoint URL.

2. **Create/updating profile** – As Micro service

3. **Search Flats, villa, apartment, and plots** - As Micro service

4. **Buy and sale property** - As Micro service

5. **Admin Functionality**. - As Micro service

**Note: All micro services has to be registered in Eureka.**

**Enhancements for Future:-**

1. Chat Facility.

2. Customized Advertisements and event notifications.

4. Applications

5. SMS based notification

**MODULE LISTS**

|  |  |  |
| --- | --- | --- |
| **S no.** | **Functionality** | **Brief introduction of the functionality** |
| 1 | sign up | Signup or registration - here non existing user of real-estate will register or sign up for it; the email id will be user's login id. An activation mail will be send to the user (to authenticate if user's email id is valid) and on activation only user will be able to access his/her account |
| 2 | Login/Logout/session | User will login to the system, session will be established and can logout |
| 4 | Password encryption | The password of the user must be encrypted in database - and will be decrypted while login and change password and forget password feature |
| 5 | Change password | User may change his/her account password. The new password should not be same as old one, and should also fulfill all the password related constrains of signup time. |
| 6 | Forget password | an email contain user's password (decrypted) will be send to the user |
| 7 | User profile & Privacy settings | A user may set additional info about himself/herself like address, phone no, email id, user type (buyer or seller). |
| 8 | Search Property | User should be able to search for the estate, Provide all advance filters needed for the search |
| 9 | View Image | Show at least 5 images of the property in property details. |
| 10 | Download Brochure | User should be able to download brochure about the estate. |
| 11 | Business Analysis | Admin should be able to see all the estates user visited. |
| 12 | Admin Notification | If user shows interest (like downloading brochure) in property then admin should be notified |
| 13 | Reporting Analysis | Add varies statistics so admin can view and make business strategy. |
| 14 | home/profile page - integration | Integration of Admin Page, Customer Page. |

**TECHNOLOGY AND ARCHITECTURE**

**TECHNICAL SPECIFICATIONS**

**1. Software Requirement:**

Spring Source Framework 5

My SQL 5.0

JDK 1.8

**3. System Architecture:**

1. **Angular - Front end UI**
2. **Spring Boot – Rest Controller – Back end functionality**

**Two API need to be design, one will get data from server (b) and another API will project the data using Angular (a).**

Angular Service

HTML page with Angular component

**Angular - Front end UI**

JSON Object Provided

Call Rest controller

Service

Dao - JPA

Rest Controller

**Spring Boot – RestController – Back end functionality**