

Object Oriented Analysis and Design using Java (UE20CS352)

Mini Project

Title: Chef's Portal

Teammates:

| Name | SRN |
|--------------------|---------------|
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Project Description:

Abstract:

An app that makes cooking a hassle free enjoyable process. Aimed at professional and home chefs with passion for cooking, who would like to store their recipes someplace safely, expand their cooking knowledge. This app will also simplify conversions of measurements for ingredients and make it hassle-free. Users can change the quantity of their recipe's ingredients based on the portion size, flexibly.

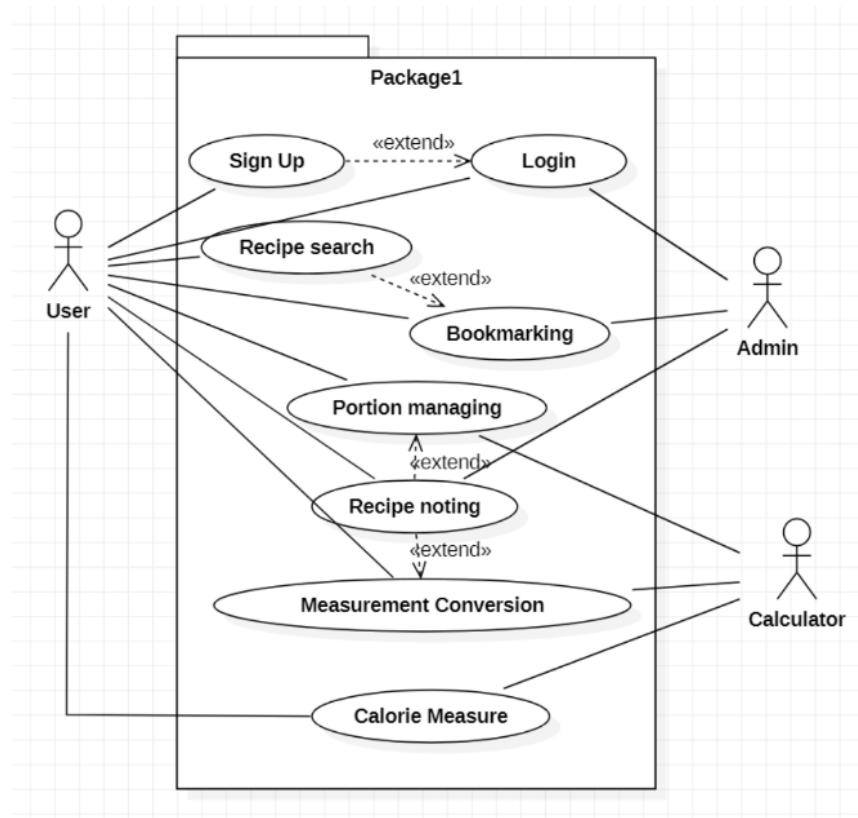
Recipes can be uploaded easily, with pictures and other flairs. A secure personal cookbook feature will be provided.

Functionalities:

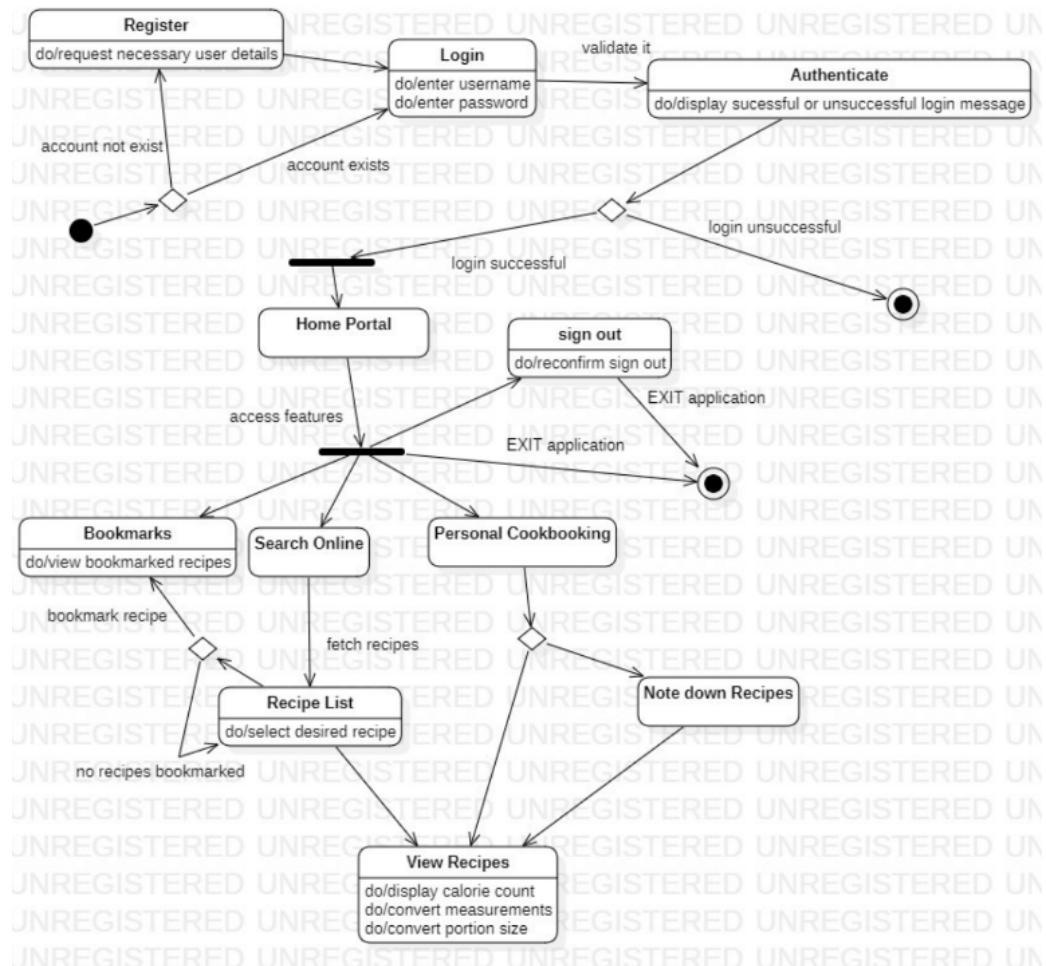
- Conversion of measurements (from cups to gm, gm to pound, etc)
- Changing the quantity of ingredients needed according to the portion size.
- Finding popular recipes, visiting their sites through the app
- Space for users to note down their recipes so they won't forget.
- Bookmarking recipes feature
- A calorie count measurement

UML Diagrams:

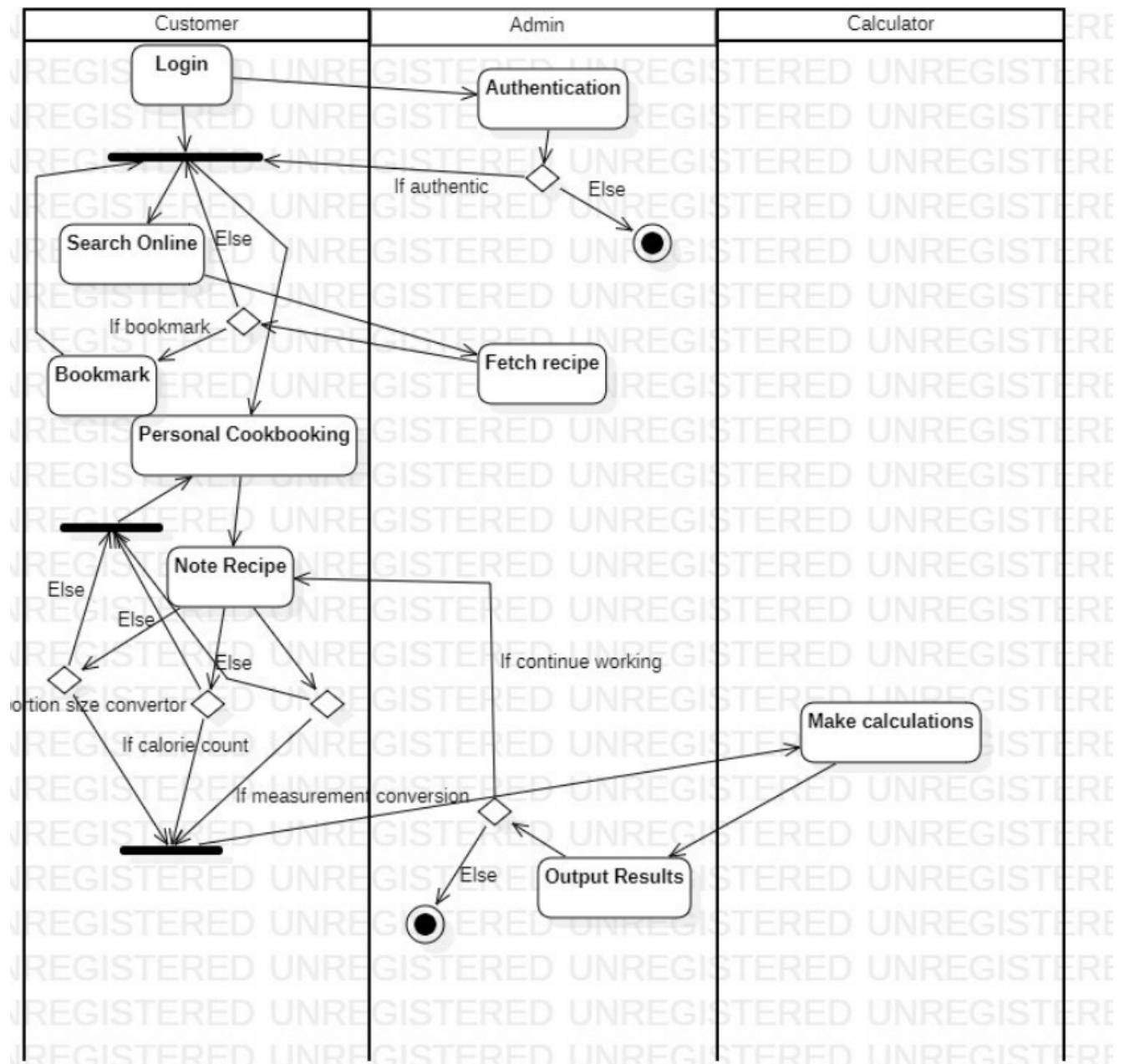
USE Case:



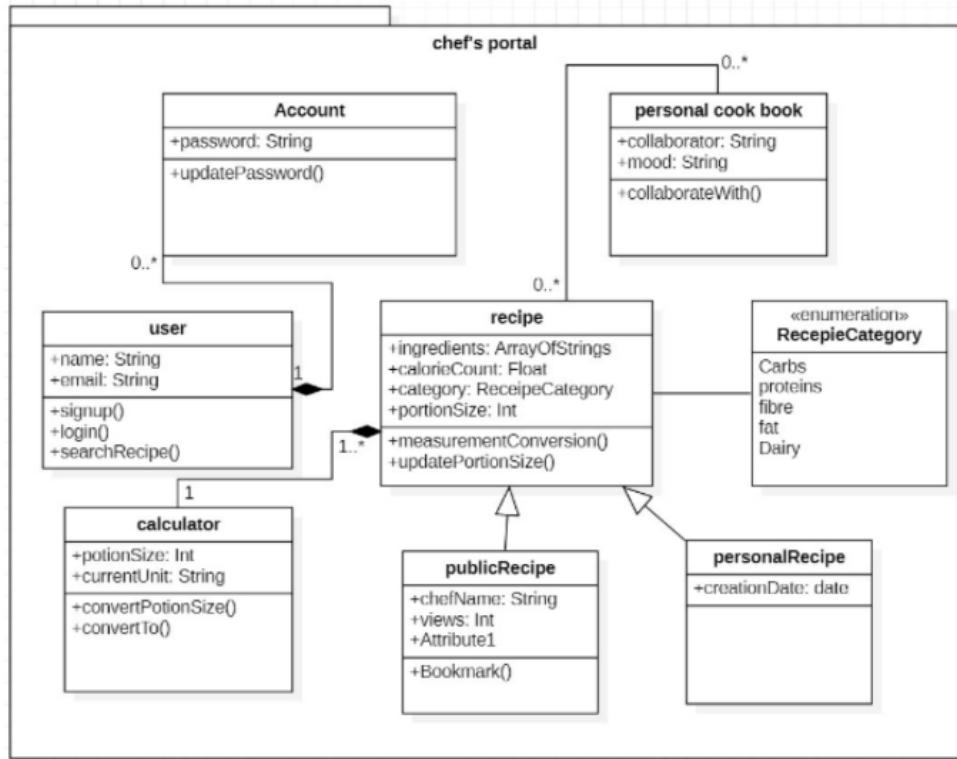
State diagram:



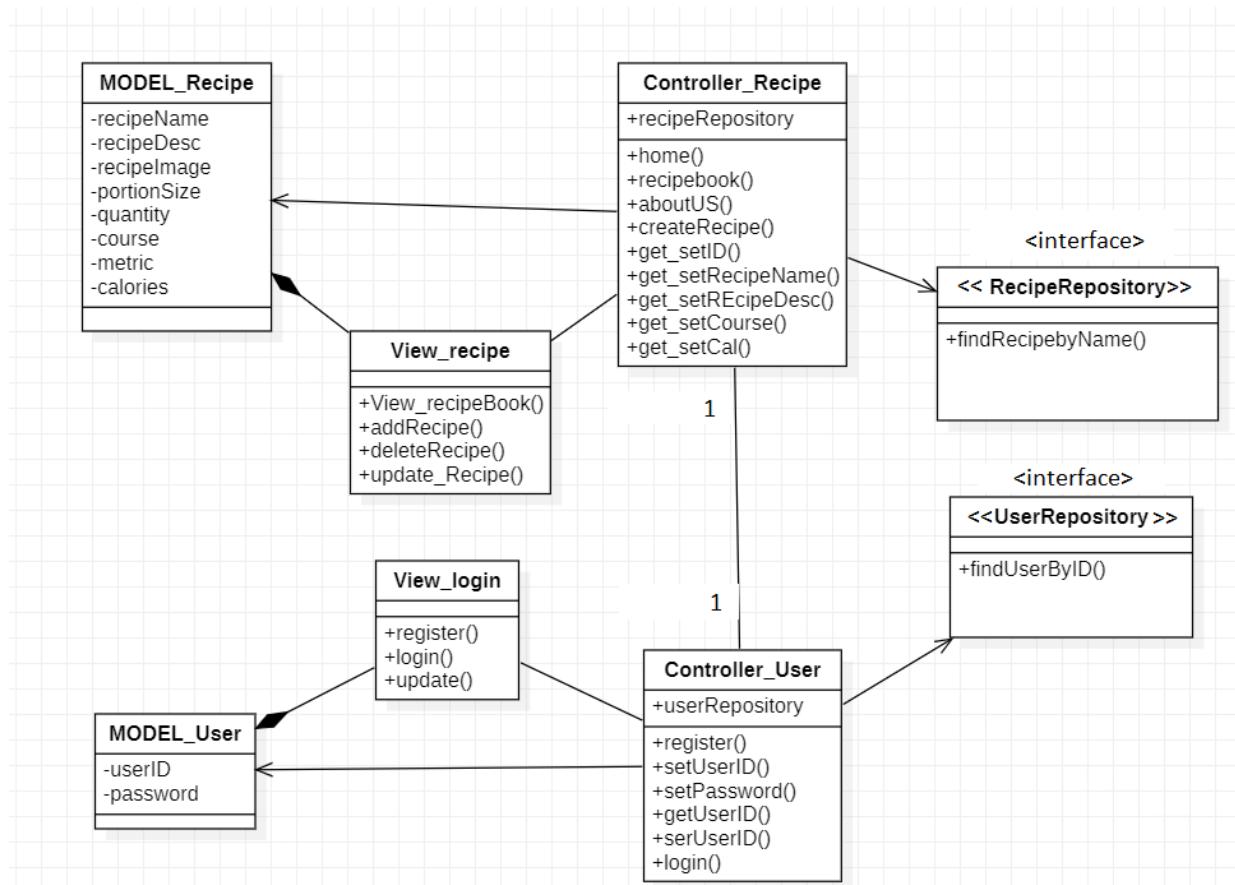
Activity Diagram:



Class Diagram:



MVC Class diagram:



Architecture and Design Patterns:

1. **Model-View-Controller (MVC) Pattern:** This pattern is used to separate the user interface (view) from the application logic (controller) and the data storage (model). In the project, the MVC pattern is applied to divide the system into three interconnected components - the user interface, the business logic, and the data access layer.
2. **Single Responsibility Principle (SRP):** The SRP is a design principle that states that a class or module should have only one reason to change. The project uses this principle to ensure that each class is responsible for only one aspect of the system's functionality.
3. **Open-Closed Principle (OCP):** The OCP is a design principle that states that a class should be open for extension but closed for modification. The project uses this principle to ensure that the system is easily extensible without having to modify existing code.
4. **Factory Method(Creational Pattern):** This pattern provides an interface for creating objects, but allows subclasses to decide which class to instantiate. It encapsulates the object creation logic and provides flexibility in object creation. The project uses JpaRepository interface which is an abstract interface that defines methods for performing common database operations such as CRUD (Create, Read, Update, Delete) operations on entities.
5. **Observer Pattern(Behavioural Patterns):** This pattern is used to define a one-to-many dependency between objects, so that when one object changes state, all its dependents are notified and updated automatically. The project uses this pattern to notify the system's components, such as the recipe book, when a recipe is added or removed from the database.

Github link to the Code base:

<https://github.com/charvibannur/OOAD-Mini-Project>

Individual contributions of the team members:

| Name | Contributions |
|--------------------|--|
| Charvi Bannur | Use Case Diagram, StateDiagram Model: Recipe.java Controller: RecipeController.java View: RecipeRepository |
| Chaitra Bhat | Use Case Diagram, Activity diagram Model: Userr.java Controller: LoginController.java & RegistrationController.java View: UserRepository |
| Ankitha C | Use Case Diagram, Class Diagram Model: Recipe.java Controller: RecipeController.java View: RecipeRepository |
| Jeffrey S Varghese | Use Case Diagram, MVC Class diagram Model: Userr.java |

Controller: LoginController.java &
RegistrationController.java
View: UserRepository

Screenshots with input values populated and output shown

Database- before registering user:

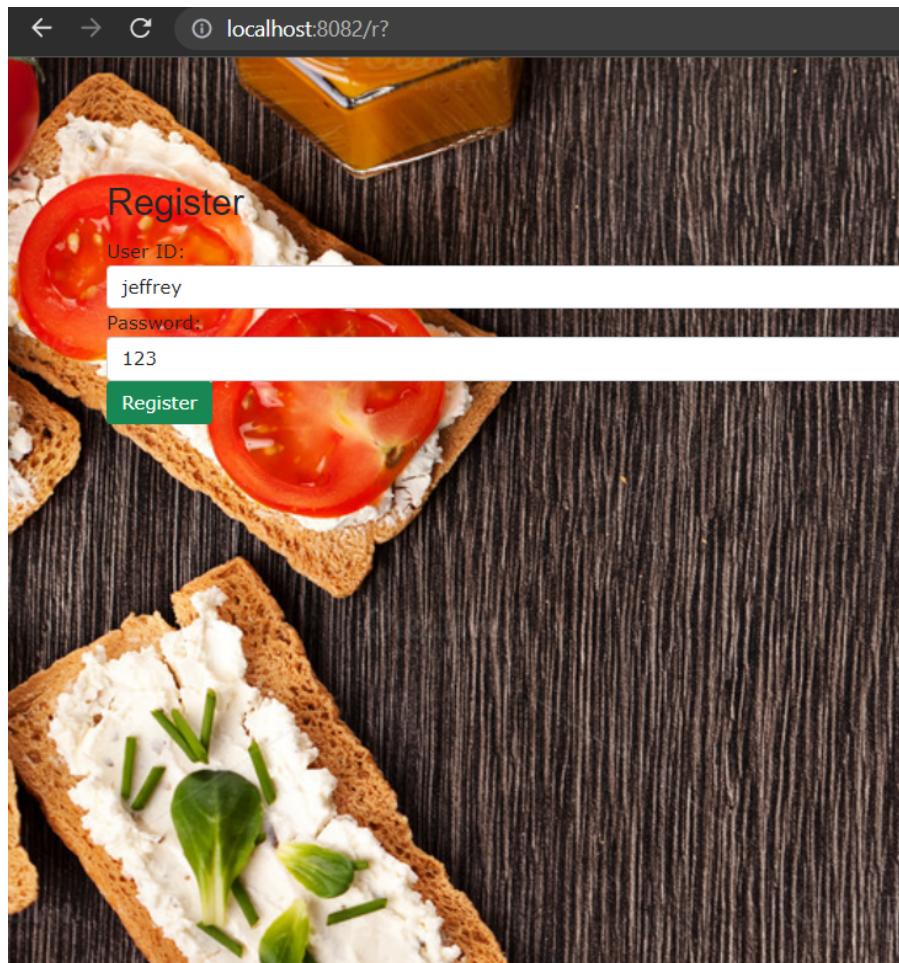
The screenshot shows the H2 Database Console interface. The URL is `localhost:8082/h2-console/login.do?jsessionid=890239d17091ce36b73dcca71b194c86`. The left sidebar lists databases: RECIPE, USERR, INFORMATION_SCHEMA, Sequences, and Users. The main area shows the results of the SQL query `SELECT * FROM USERR;`. The results are displayed in a table with columns `USER_ID` and `PASSWORD`, containing three rows of data.

| USER_ID | PASSWORD |
|-----------------|----------|
| chaitra | 123 |
| chaitraa | 1234 |
| chaitraaaaaaaaa | 1234 |

(3 rows, 10 ms)

Buttons at the top include Auto commit, Max rows: 1000, Run, Run Selected, Auto complete, Clear, and SQL statement: `SELECT * FROM USERR;`.

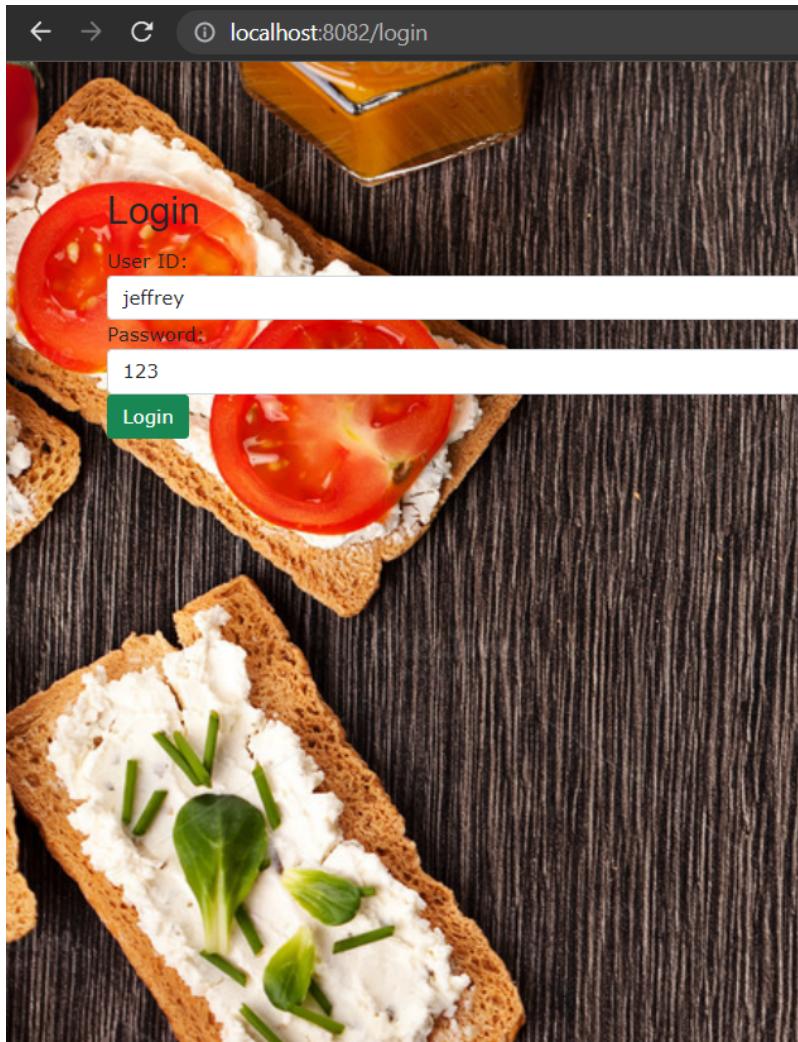
Registering user:



Updated Database:

A screenshot of the H2 database console at 'localhost:8082/h2-console/login.do?jsessionid=890239d17091ce36b73dcca71b194c86'. The left sidebar shows databases like 'RECIPE', 'USERR', and 'INFORMATION_SCHEMA'. The main area has a SQL input field with 'SELECT * FROM USERR;' and a results table below it. The table has columns 'USER_ID' and 'PASSWORD'. It contains four rows: 'chaitra' with '123', 'chaitraa' with '1234', 'chaitraaaaaaaaa' with '1234', and 'jeffrey' with '123'. A red arrow points to the 'jeffrey' row. The status bar at the bottom says '(4 rows, 0 ms)'.

Redirected to login page after Registering user:



Home Page:

CHEF'S PORTAL

Trending this week

About

An app that makes cooking a hassle free enjoyable process. Aimed at professional and home chefs with passion for cooking, who would like to store their recipes someplace safely, expand their cooking knowledge. This app will also simplify conversions of measurements for ingredients and make it hassle-free. Users can change the quantity of their recipe's ingredients based on the portion size, flexibly. Recipes can be uploaded easily, with pictures and other flairs. A secure personal cookbook feature will be provided. Other users' public recipes can be bookmarked for further reference, and be accessed from each user's personal bookmarks section.

Made with Love by:

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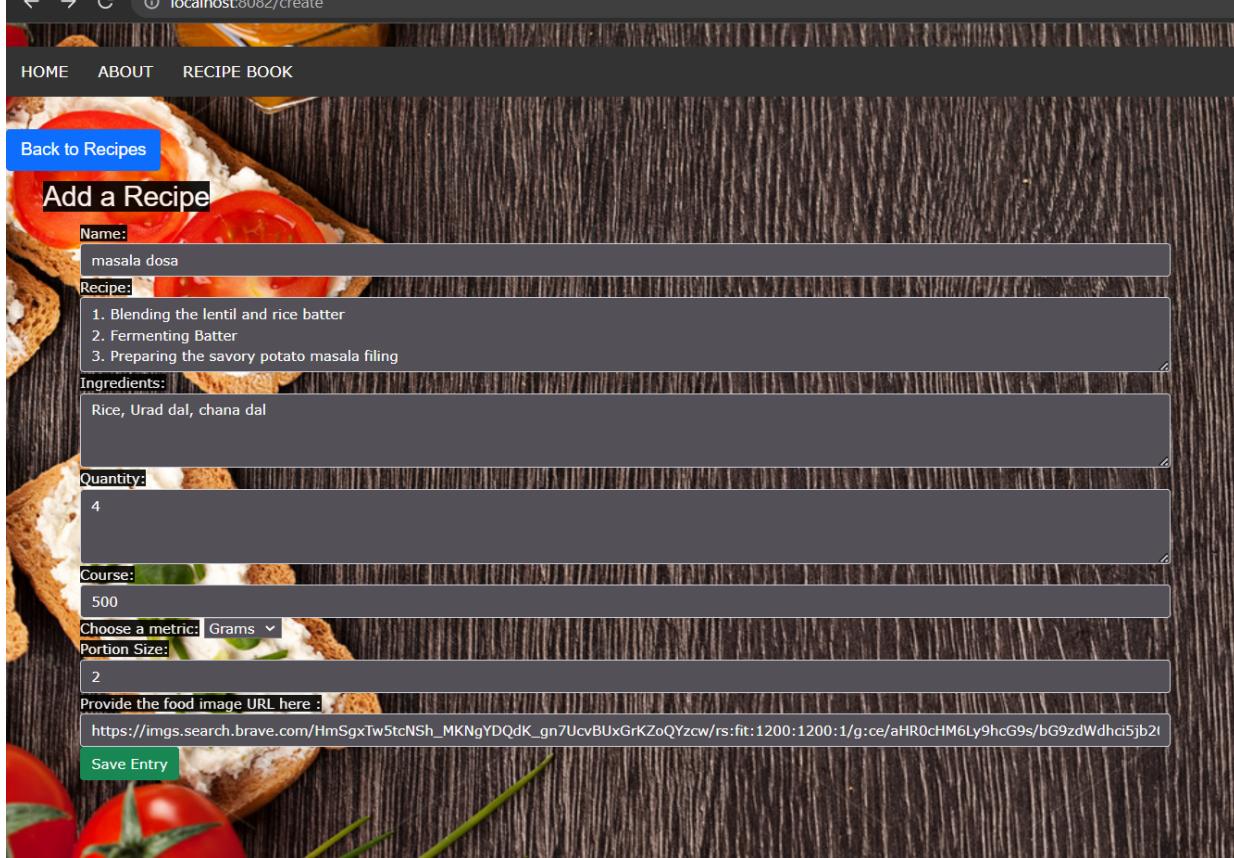
Empty Recipe Table:

The screenshot shows the H2 database console interface at `localhost:8082/h2-console/login.do?jsessionid=890239d17091ce36b73dcca71b194c86`. The left sidebar lists database objects: RECIPE, USERR, INFORMATION_SCHEMA, Sequences, and Users. The main area displays the result of the SQL query `SELECT * FROM RECIPE`. The results table has columns: ID, CAL, INGLIST, INGPRINT, METRIC, PORTIONSIZE, QUANTLIST, QUANTPRINT, RECIPE_COURSE, RECIPE_DESC, RECIPE_IMAGE, and RECIPE_NAME. It shows "(no rows, 1 ms)" and contains no data.

| ID | CAL | INGLIST | INGPRINT | METRIC | PORTIONSIZE | QUANTLIST | QUANTPRINT | RECIPE_COURSE | RECIPE_DESC | RECIPE_IMAGE | RECIPE_NAME |
|-----------------|-----|---------|----------|--------|-------------|-----------|------------|---------------|-------------|--------------|-------------|
| (no rows, 1 ms) | | | | | | | | | | | |

Adding Recipe:

← → ⌛ localhost:8082/create



HOME ABOUT RECIPE BOOK

[Back to Recipes](#)

Add a Recipe

Name: masala dosa

Recipe:

1. Blending the lentil and rice batter
2. Fermenting Batter
3. Preparing the savory potato masala filing

Ingredients:

Rice, Urad dal, chana dal

Quantity:

4

Course:

500

Choose a metric: Grams ▾

Portion Size:

2

Provide the food image URL here : https://imgs.search.brave.com/HmSgxTw5tcNSh_MKNgYDQdK_gn7UcvBUxGrKZoQYzcm/rs:fit:1200:1200:1/g:ce/aHR0cHM6Ly9hcG9s/bG9zdWdhci5jb21

[Save Entry](#)

View Recipe:

← → ⌛ localhost:8082/showrecipe/47

MASALA DOSA



Change Portion Choose a Metric: Grams ▾
Change Metric

Ingredients
Rice, Urad dal, chana dal

Quantity
4

Portion
2

Metric
gram

Recipe

1. Blending the lentil and rice batter
2. Fermenting Batter
3. Preparing the savory potato masala filing

Course
500

Calories
0.0

[DELETE](#) [EDIT](#)

Updated Recipe Table

The screenshot shows an H2 database console interface. At the top, there are navigation icons and a URL bar displaying "localhost:8082/h2-console/login.do?sessionId=890239d17091ce36b73dcca71b194c86". Below the URL bar is a toolbar with various icons for database management. The main area contains a SQL query editor and a results table.

SQL Query:

```
SELECT * FROM RECIPE
```

Results Table:

| METRIC | PORTIONSIZE | QUANTLIST | QUANTPRINT | RECIPE_COURSE | RECIPE_DESC | RECIPE_IMAGE |
|--------|-------------|---|------------|---------------|---|---|
| gram | 2 | aced80057572000250460b9c18922e00429200007870000000140800000 | 4 | 500 | 1. Blending the lentil and rice batter 2. Fermenting Batter 3. Preparing the savory potato masala filling | https://img5.search.brave.com/HmSgxTv5tNSh_MKNgYDQdk_gn7UcvBUvGrkZoQYzow/fi.1200x1200/1/gce/aHR0chM6Ly9h0 |