Indian Institute of Information Technology, Allahabad

Project Report

Recipe Management System

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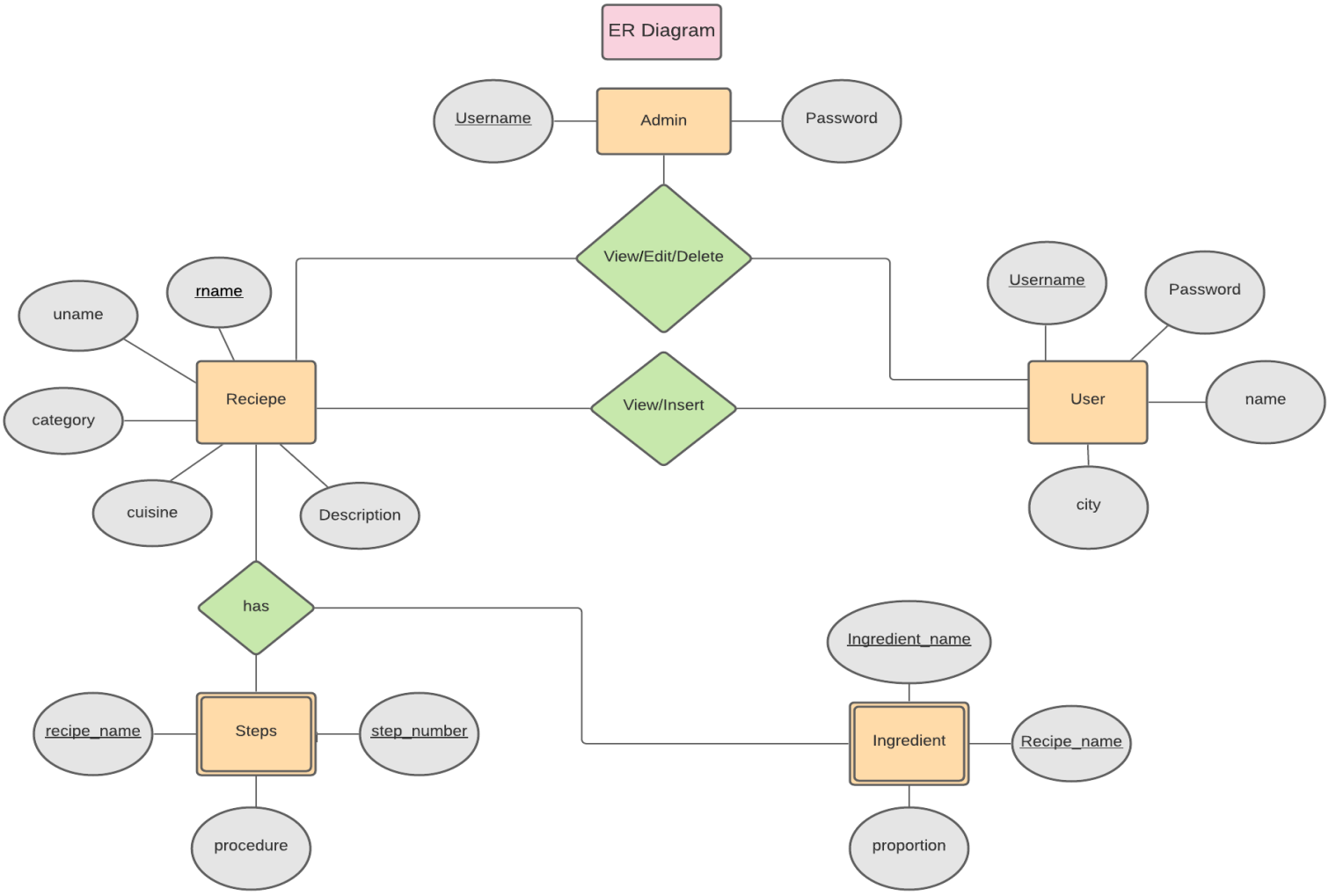
Introduction:

This web application is designed to store and manage different Recipes and user data. In our program several users can create and view different types of recipes including all the steps and ingredients. We also keep record of the details of the user who adds the recipes. Admin can edit or delete user and recipe details.

Entity Relationship Diagram:



3NF- Normalization of Tables:

Conditions to be satisfied in 3NF form:

1. All attributes must be atomic- Satisfied by logical checks while updating tables.

2. All non key attributes are fully functional dependent on the primary key.

3. Not contain any transitive partial dependency.

1. User_info

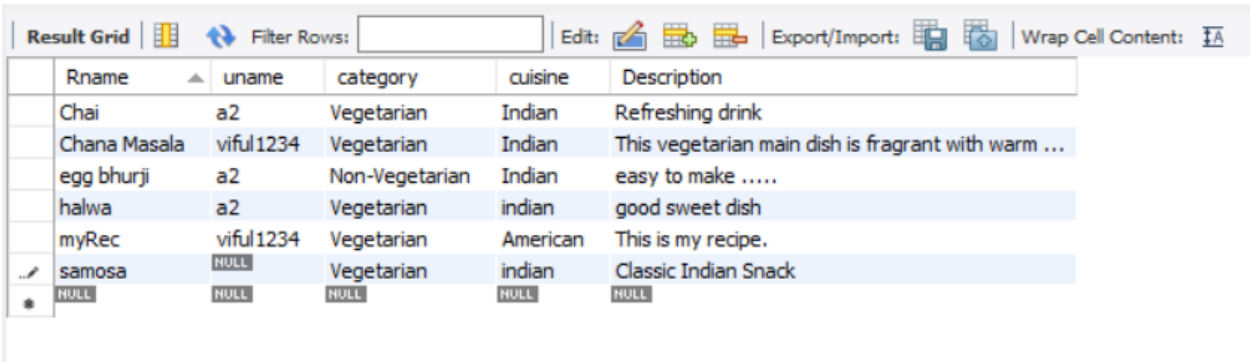
name	uname	password	city	state
harshit	a11	1	1	1
a2	a2	a2	a2	a2
sanket kokude	kokudesanket200@gmail.com	Sanket@123	amravati	maharashtra
viful	viful1234	1234	Agra	UP
Monish	Monish@1234	zakadafa	Basti	UP
Aysuh	Ayush@gmail.com	21314@asd	Shimla	HP

Primary Key - uname

Functional Dependency:
uname=>{name,uname,password,city,state}

Table satisfies all three conditions as the table only has atomic values and the primary key can only determine all other non key attributes. Also there is no transitive as there is only one FD mentioned above.

2. Rec_table



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

Rname	uname	category	cuisine	Description
Chai	a2	Vegetarian	Indian	Refreshing drink
Chana Masala	viful1234	Vegetarian	Indian	This vegetarian main dish is fragrant with warm ...
egg bhurji	a2	Non-Vegetarian	Indian	easy to make .....
halwa	a2	Vegetarian	indian	good sweet dish
myRec	viful1234	Vegetarian	American	This is my recipe.
samosa	NULL	Vegetarian	indian	Classic Indian Snack
NULL	NULL	NULL	NULL	NULL

Primary key - Rname

Functional Dependency:
Rname=>{Rname,uname,category,cuisine,Description}

Table satisfies all three conditions as the table only has atomic values and the primary key can only determine all other non key attributes. Also there is no transitive as there is only one FD mentioned above.

3. Step

idstep	recname	dis
13	Chana M...	Chop the cilantro. ...
14	Chana M...	Cut jalapeño in half...
15	Chana M...	Add garam masala,...
16	Chana M...	Heat oil in a large, ...
17	Chana M...	Add the tomatoes ...
18	Chana M...	Rinse and drain the...
19	Chana M...	Spoon chana masal...
20	Chana M...	Roughly chop the o...
21	Chana M...	Add the reserved ci...
22	myRec	step1
23	myRec	step2
24	myRec	step1

Primary key - idstep

Functional Dependency:

{idstep,Rname}=>{idstep,recname,dis}

Table satisfies all three conditions as the table only has atomic values and the primary key can only determine all other non key attributes. Also there is no transitive as there is only one FD mentioned above.

4. Ingrediant_table

Iid	Iname	Rname	proportion
16	onion	egg bhurji	1
17	salt	egg bhurji	acc to taste
18	fresh ginger	Chana Masala	1 inch
19	jalapeño chili	Chana Masala	1
20	garlic cloves	Chana Masala	5
21	medium onion	Chana Masala	1
22	vegetable oil	Chana Masala	3 tbs
23	salt	Chana Masala	1 tbs
24	Garam Masala	Chana Masala	1 tbs
25	ground cumin	Chana Masala	10 gm
26	tomatoes	Chana Masala	1
27	lemon juice	Chana Masala	2 tbs

Primary key - Iid

Functional Dependency:
{Iid,Rname}=>{Iid,Iname,Rname,proportion}

Table satisfies all three conditions as the table only has atomic values and the primary key can only determine all other non key attributes. Also there is no transitive as there is only one FD mentioned above.

Hence we can see all the tables used in the database are normalised to 3NF form.

Technologies Used in Our Project

Our web application consists of 3 basic parts that could be distinguished as :

1. Frontend Application- Front-end web development is the practice of converting data to a graphical interface, through the use of HTML, CSS, and JavaScript, so that users can view and interact with that data. Here we have used React framework to make the frontend more effective and make it more expandable as the components could be reused and modified as per the requirements. It is from where the application makes calls for the data or changes in data through API calls that are further handled by the backend application.

2. Backend Application - Back-end development refers to the server side of an application and everything that communicates between the database and the browser frontend application. Many different technologies could be used for the purpose but we used node.js for the purpose of making the whole project unified to a particular programming language and further better speed of accessing and forwarding data in correct format is another reason for choosing it. Node.js is a cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser.

3. Database Connected – We have used ‘mysql’ database in our web application.