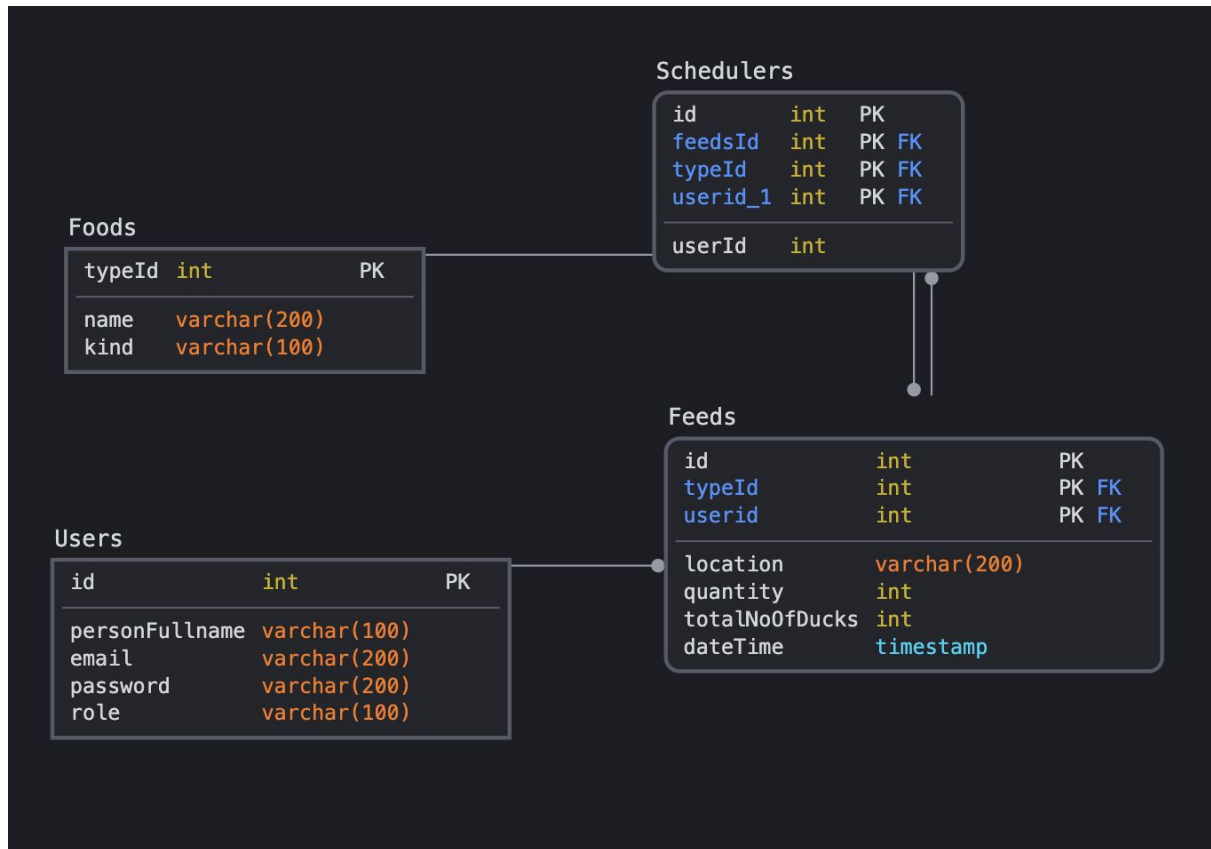


Design Document - FeedTheDucks

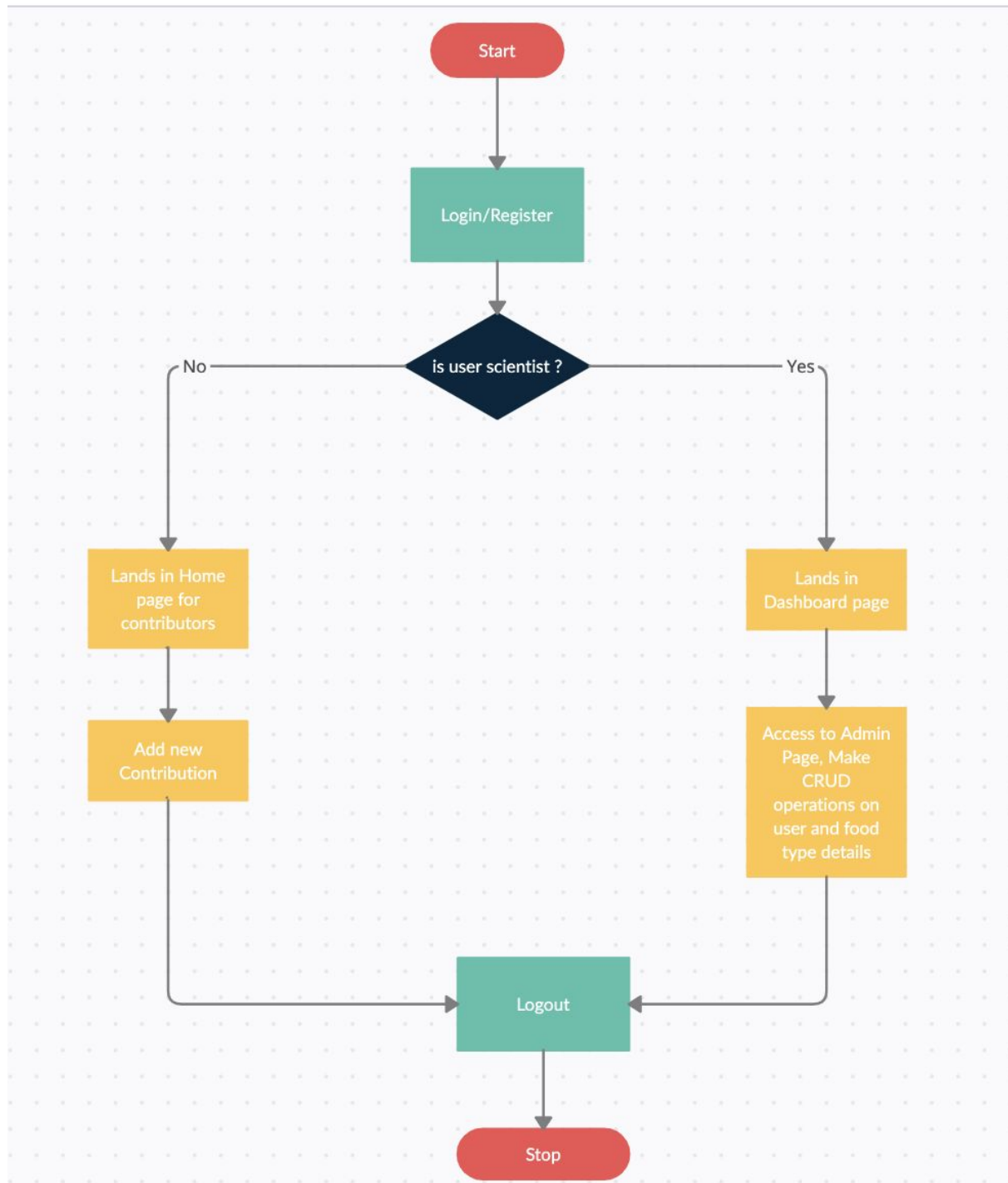
Overview :

FeedTheDucks is a web application built to help a scientist to collect the information by crowdsourcing this application for PhD Thesis. FeedTheDucks is a modern web application built using Angular 8, Node JS and MySql database.

Database Architecture :



Flow Diagram:



Screen Details :

Login Page :

ec2-18-191-211-205.us-east-2.compute.amazonaws.com/login

Feed The Ducks

Email

Password

Login

[Create New account.](#)

Register Page:

ec2-18-191-211-205.us-east-2.compute.amazonaws.com/register

Feed The Ducks

Full Name

Email

Password

Confirm Password

Register

[Already have an account? Sign-in.](#)

LOGIN TYPE : Contributor (existing user)

HomePage :

Feed The Ducks

Location

Paris

Contributions

7

Total Quantity

360

No of Ducks fed

72

Last Update On: 15/03/2021

Location	Food Name	Food Kind	Quantity	Total No. Of Ducks	Date
Paris	Corn	Type 4	10	2	15/03/2021
Paris	Corn	Type 4	200	15	15/03/2021
Paris	Corn	Type 4	10	10	15/03/2021
Paris	Corn	Type 4	10	10	15/03/2021
Paris	Corn	Type 4	100	15	15/03/2021
Paris	Corn	Type 4	15	10	15/03/2021
Paris	Corn	Type 4	15	10	15/03/2021

Add New Contribution Popup:

Feed The Ducks

Location

Paris

No of Ducks fed

72

Last Update On: 15/03/2021

Please Enter The Details

Location

Paris

Total Number of Ducks fed

15

Total Quantity (In Grams)

250

Food Name

Grains

Food Type

Type 2

☐ Scheduler (Yes, we make things easier for you!)

Close

Submit

Location	Food Name	Food Kind	Quantity	Total No. Of Ducks	Date
Paris	Corn	Type 4	15	10	15/03/2021
Paris	Corn	Type 4	15	10	15/03/2021

Success message:

Feed The Ducks

Location

Paris

Contributions

8

Total Quantity

610

No of Ducks fed

87

Last Update On: 15/03/2021

Location	Food Name	Food Kind	Quantity	Total No. Of Ducks	Date
Paris	Corn	Type 4	10	2	15/03/2021
Paris	Corn	Type 4	200	15	15/03/2021
Paris	Corn	Type 4	10	10	15/03/2021
Paris	Corn	Type 4	10	10	15/03/2021
Paris	Corn	Type 4	100	15	15/03/2021
Paris	Corn				15/03/2021
Paris	Corn				15/03/2021

✓ Added Successfully

+

In the Home page for Contributors, We have displayed the stats that give information on their last Updated location, Total Number of contributions they made, total quantity of foods they fed, total number of ducks they have fed so far. When User Clicks on the '+' icon, a new contribution page will popup, In that user can **schedule** their daily contribution by simply sliding the scheduler slider. This scheduler takes current value as prime value and populates the contribution every day exactly at 0200. By doing this users will never forget to help us by feeding their contributions.

Users can also see their last contribution date just above the reports table. If user forgets to contribute for say more than 2 days, a message will show up saying **"Its been 'n' days since you made your last Contribution"**. this way, we feel the application is more communicating with the end user.

Feed The Ducks

Location

Paris

Contributions

8

Total Quantity

610

No of Ducks fed

87

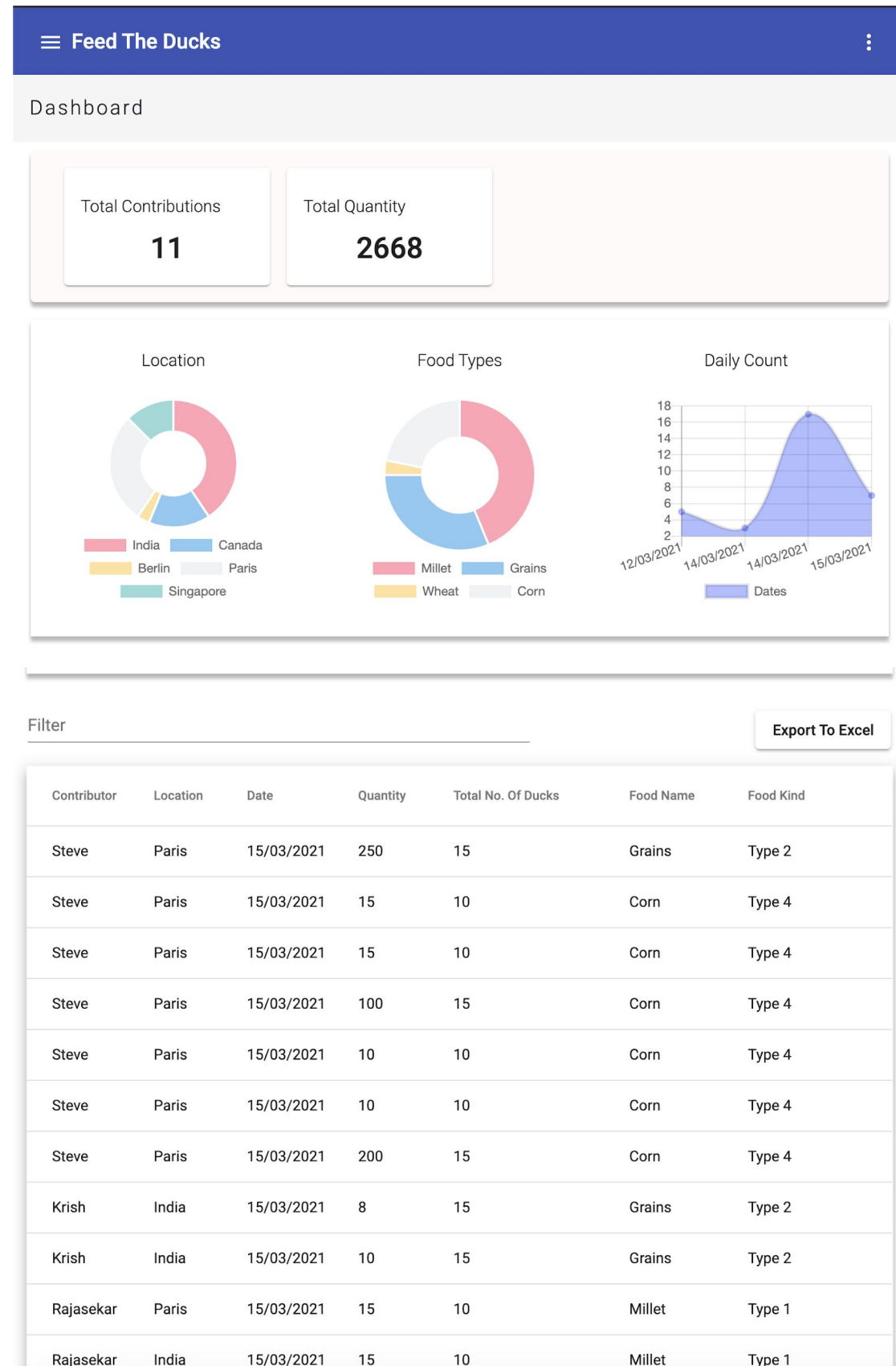
Its been 2 days since you have made your contribution. Last Update On: 13/03/2021

Location	Food Name	Food Kind	Quantity	Total No. Of Ducks	Date
Paris	Corn	Type 4	10	2	13/03/2021
Paris	Corn	Type 4	200	15	13/03/2021
Paris	Corn	Type 4	10	10	13/03/2021
Paris	Corn	Type 4	10	10	13/03/2021
Paris	Corn	Type 4	100	15	13/03/2021
Paris	Corn	Type 4	15	10	13/03/2021
Paris	Corn	Type 4	15	10	13/03/2021

+

LOGIN TYPE : Scientist

Dashboard Page :



When a scientist logged into FeedTheDuck app, It will take the user to Dashboard page. On the top of the dashboard page, users can see stats that give information on total number of contributors so far, and total quantity of food fed. Next to stats, there are 3 charts. First donut chart gives information on location, from which location the stats are from and their share. Second donut chart provides information on food types the ducks were fed. The third line chart provides information on the count of contributions on a daily basis.

Chart is followed by a report table. This table provides all info about the contributions. Filtering is enabled for the table so that a scientist can list out filtered values. This report table can be downloaded in excel form on clicking on the **Export to excel** button. This feature will download the content of the table in excel format. If the table is filtered, the downloaded report will have filtered content alone.

Users can navigate to the admin settings page by clicking on the hamburger icon on top left of the page and selecting admin settings option.

Admin Page









Feed The Ducks

Settings

User Settings

Food Settings

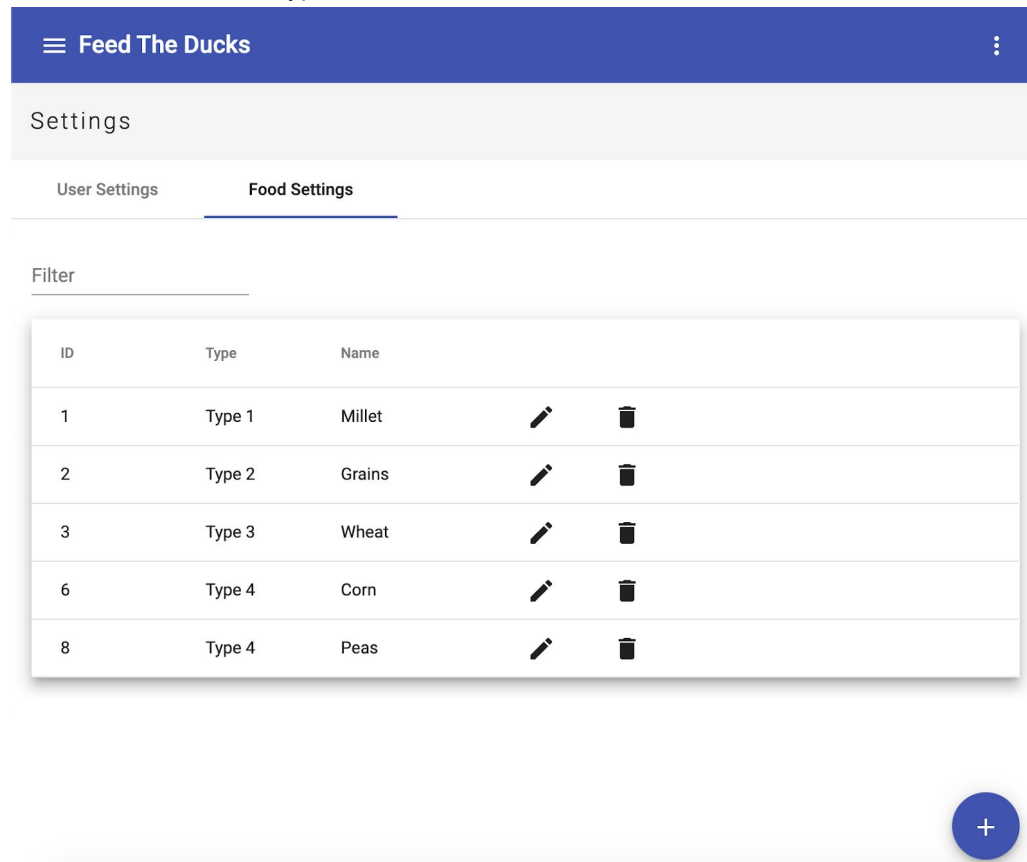
Filter

ID	Name	Email	Role	
1	Mike	ra****@gmail.com	scientist	
2	RS	ra****@gmail.com	contributor	
3	RS	ra****@gmail.com	contributor	
4	RS	r1****@gmail.com	contributor	
5	RS	r1****@gmail.com	contributor	
6	RS	r1****@gmail.com	contributor	
10	Bruce	ra****@gmailcom	contributor	
11	Rajasekar	ra****@gmail.com	scientist	

On navigating to the admin page, the user will see 2 tabs. User-settings and food-setting.

User settings tab will list out all the contributors and their respective roles. Scientist user has privilege to change the user role. And Yes, we respect **USER PRIVACY**. Even for the admin role we are masking contributor's email id.

Food setting tab is where the list of food types will be displayed and only scientists have privilege to add, remove, edit food types.



Users can log out by clicking on the log out option under the top right icon on the screen.

When the user logged in once, we used JWT to create and maintain the token. In each and every API call, this token is validated before performing any operation.

This application is hosted in AWS with AWS MySQL Server.

Application URL : <http://ec2-18-191-211-205.us-east-2.compute.amazonaws.com/>

Time spent to build FeedTheDuck:

Front-End design and development : 7 hours.

Back-End design and development : 4 hours.

Hosting and Manual Testing : 1 hour.

Documentation : 30 Minutes.

To Be Implemented:

1. Sorting for each and every UI table.
2. Pagination at service level.