



SE3040 – Application Frameworks
BSc (Hons) in Information Technology
3rd Year
Faculty of Computing
SLIIT
2023 – Group Project
Technical Report

Group Leader: Kulasekara D.A.M.N

Group Leader's Contact Number: 0717573408

Batch: Y3.S1.WE.SE.01

Description	Student ID	Name
Group Leader	IT21028878	Kulasekara D.A.M. N
Member 2	IT21034404	Nipun P.G. I
Member 3	IT21039140	Dewasurendra S. V
Member 4	IT21071034	Wanniarachchi T. T

Application Topic	Food Wasting Reducing System (Environment and Green Energy)
Group Name	Binary Beasts (CSSE_WE_05)
Git Repository	https://github.com/lmashNipun/Y3S1-AF-Project.git

Project Declaration

We, the members of CSSE_WE_05 hereby declare that our group project is entirely authentic and original. We have conducted thorough research and analysis to ensure that our work is not plagiarized or copied from any other sources.

We have followed all guidelines provided by our LIC and have complied with all ethical and academic standards.

We take full responsibility for the authenticity of our work and understand the implications of academic dishonesty. We have worked collaboratively to produce this project, and each member has contributed to the best of their abilities.

We hereby affirm that our project represents our honest effort and commitment to academic integrity, and we take pride in presenting it as our own.



Group Leader (Signature)
Kulasekara D.A.M. N

Definitions

Donor - Vegetables and fruit shops, Grocery shops Supermarkets, any shops, and any individuals where there is food excess.

Receiver - Charities, child orphanages, adult orphanages, and any organizations or committees where there is a food shortage.

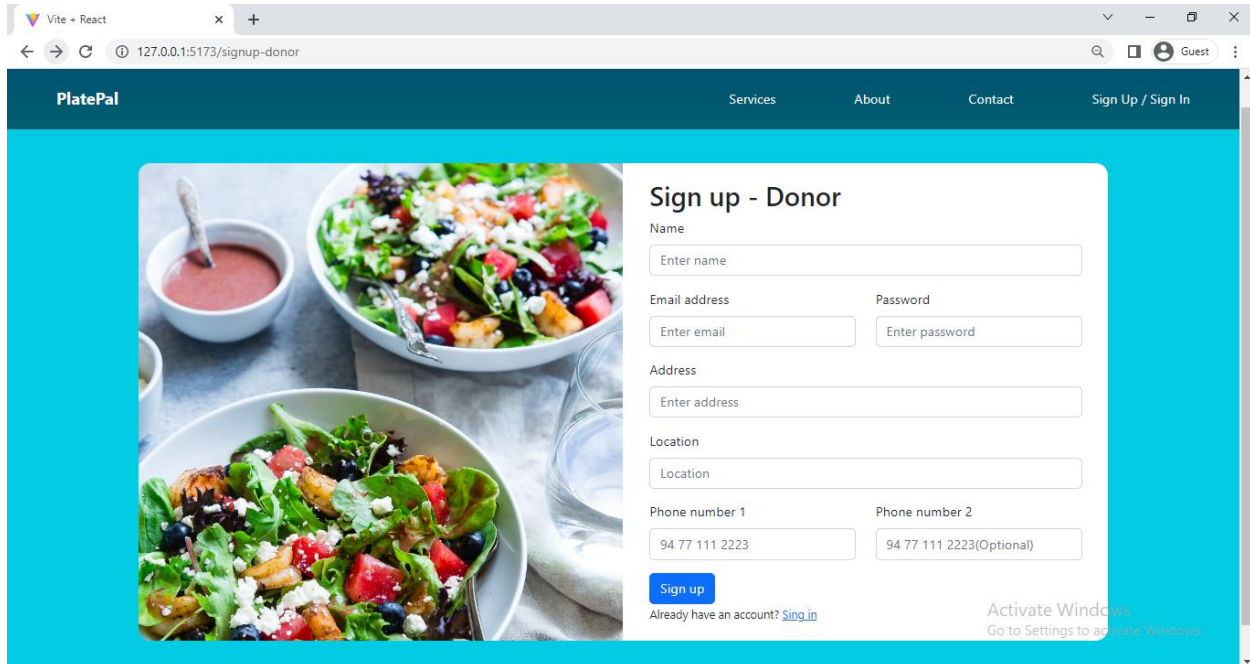
Admin – The person who manages the system. Donations - Posts published in the system about food excess.

Users – Both donor and Receiver.

Screenshots of the UI (Member wise)

Name: Kulasekara D.A.M.N

IT Number: IT21028878



The screenshot shows a web browser window with the URL `127.0.0.1:5173/signup-donor`. The page features a dark teal header with the "PlatePal" logo and navigation links for "Services", "About", "Contact", and "Sign Up / Sign In". The main content area has a light blue background. On the left, there is a photograph of a salad bowl and a small bowl of dressing. On the right, the "Sign up - Donor" form is displayed. The form includes input fields for Name, Email address, Password, Address, Location, Phone number 1, and Phone number 2. A blue "Sign up" button is positioned below the phone number fields. A link for "Sing in" is provided for users who already have an account. An "Activate Windows" watermark is visible in the bottom right corner of the page.

PlatePal

Services About Contact Sign Up / Sign In

Sign up - Donor

Name

Email address Password

Address

Location

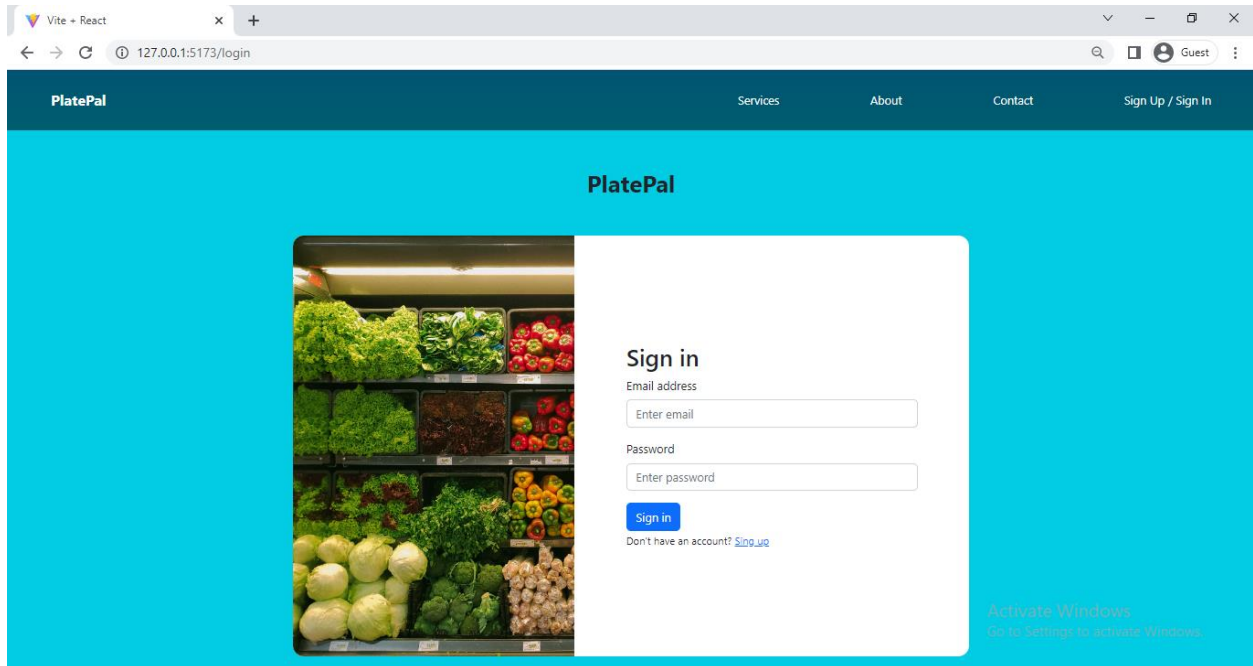
Phone number 1 Phone number 2

[Sing in](#)

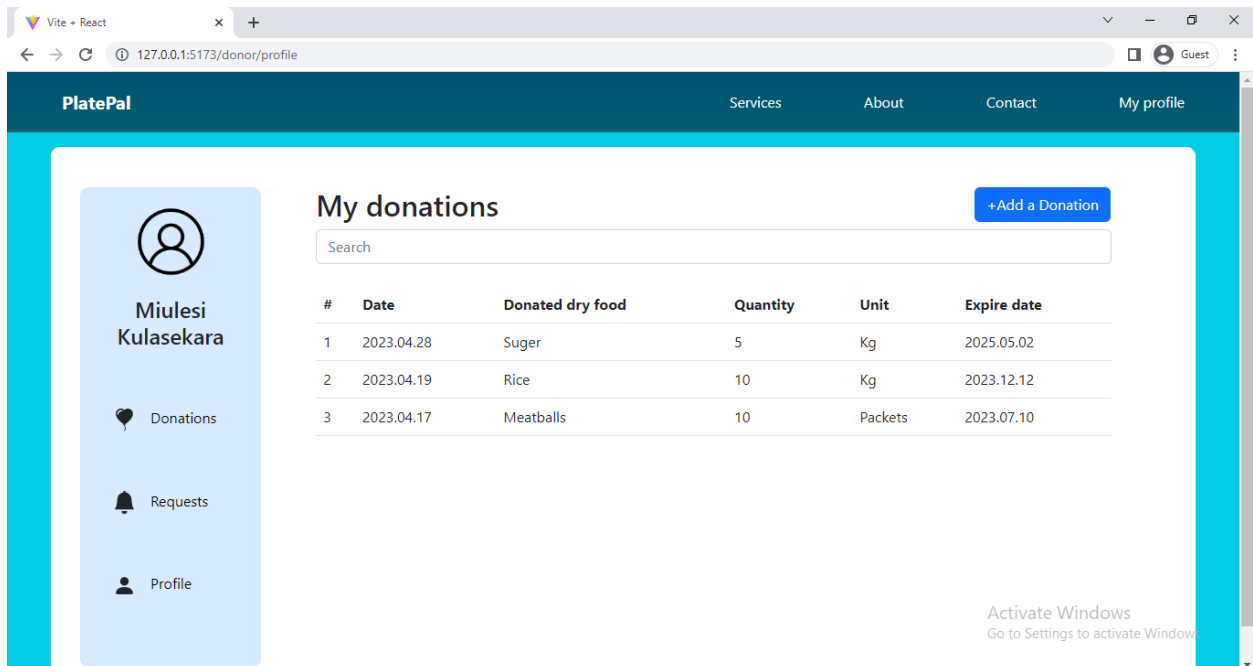
Sign up

Activate Windows
Go to Settings to activate Windows.

This interface allows the donor to register to the system.



This interface allows all users to login to the system by providing username and password.



This interface allows donors to check their donations. My profile button which is in the navigation bar and the donation link on the sidebar both navigate to “my donations”.

PlatePal Services About Contact My profile

Create a Donation

Donate dry food

Enter dry food

Quantity: Enter Quantity Unit: Kg

Expire date: dd/mm/yyyy

Save

Description

Create

Cake	1 packets	2023.08.02	Delete
Cabbage	2 items	2023.05.12	Delete

Activate Windows
Go to Settings to activate Windows.

This interface allows donors to add their donations. After navigating to this page donors can add multiple donations at once by clicking on the “Save” button. When finishing adding donations, donors can press the “Create” button. Then donations are saved in the database.

PlatePal Services About Contact My profile

Edit profile

Password: Enter password

Address: Enter address

Location: Location

Phone number 1: 94 77 111 2223 Phone number 2: 94 77 111 2223(Optional)

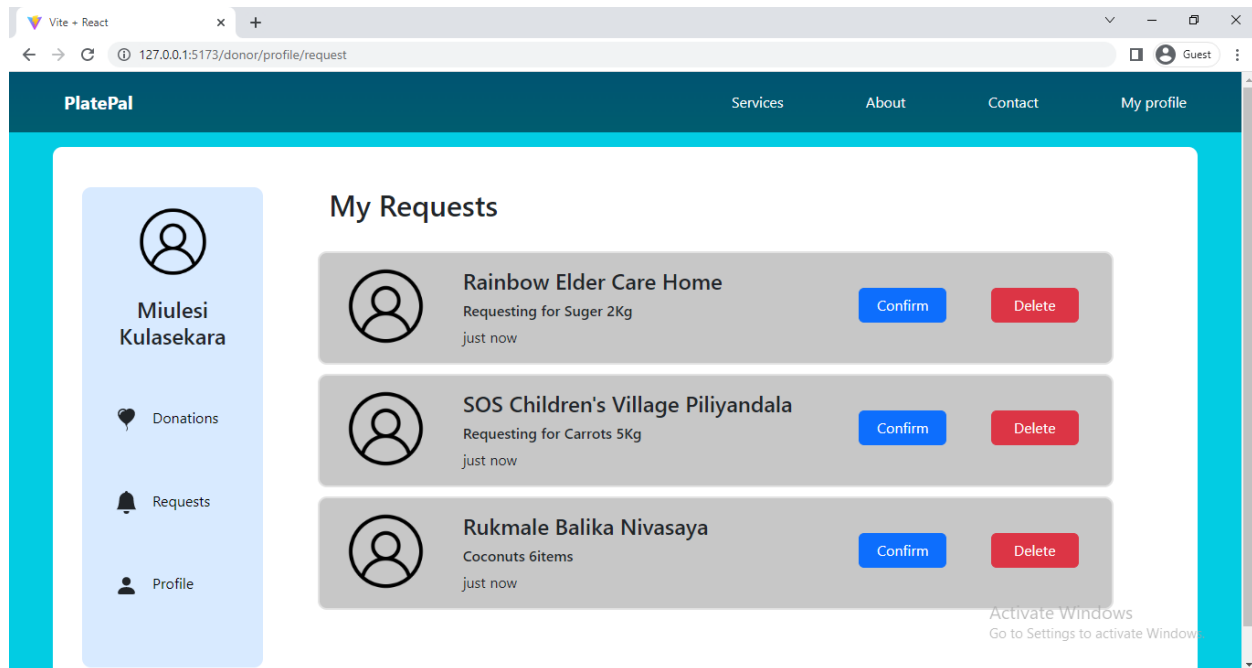
Update

Miulesi Kulasekara

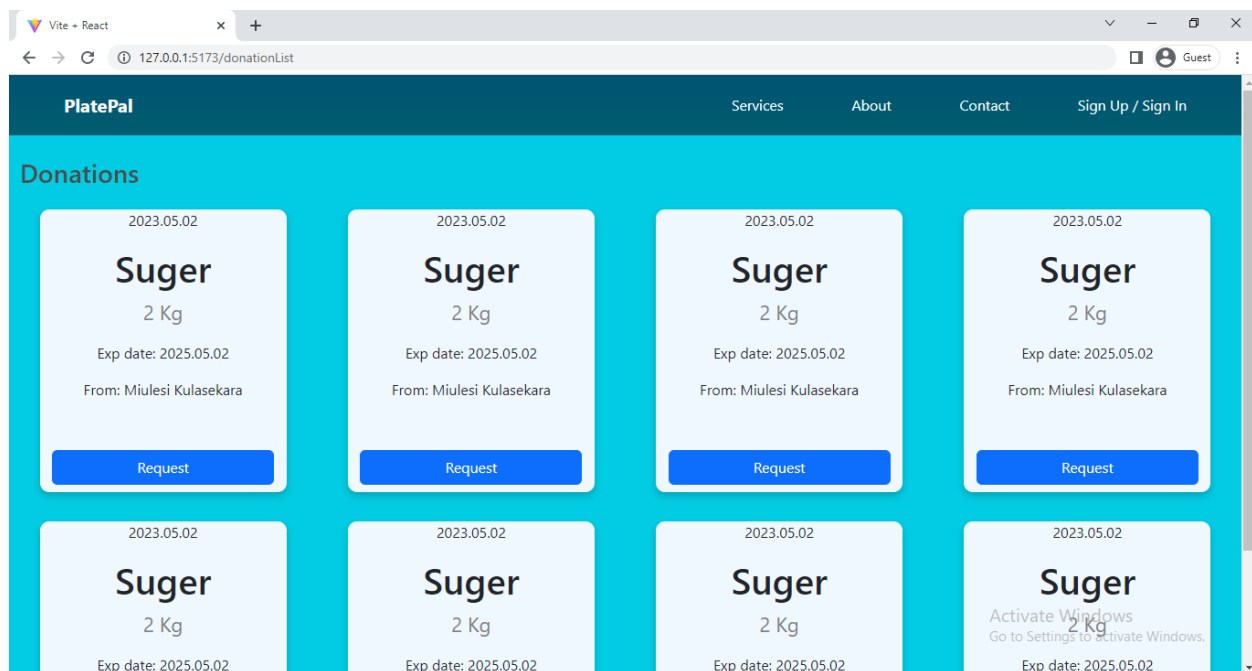
- Donations
- Requests
- Profile

Activate Windows
Go to Settings to activate Windows.

This interface allows donors to edit their profile.



When pressing “Requests” link in the side bar donors can check their requests from receivers. The donor can confirm or delete the requests.



All donations appear here. Receivers can press the “Request” button for requests for donations. Then donors receive a request message.

Vite + React

127.0.0.1:5173/admin/alldonors

Guest

PlatePal

Admin

- Dashboard
- Users
- Donations
- Meal Planning
- Recipes

Sign out

All Donors

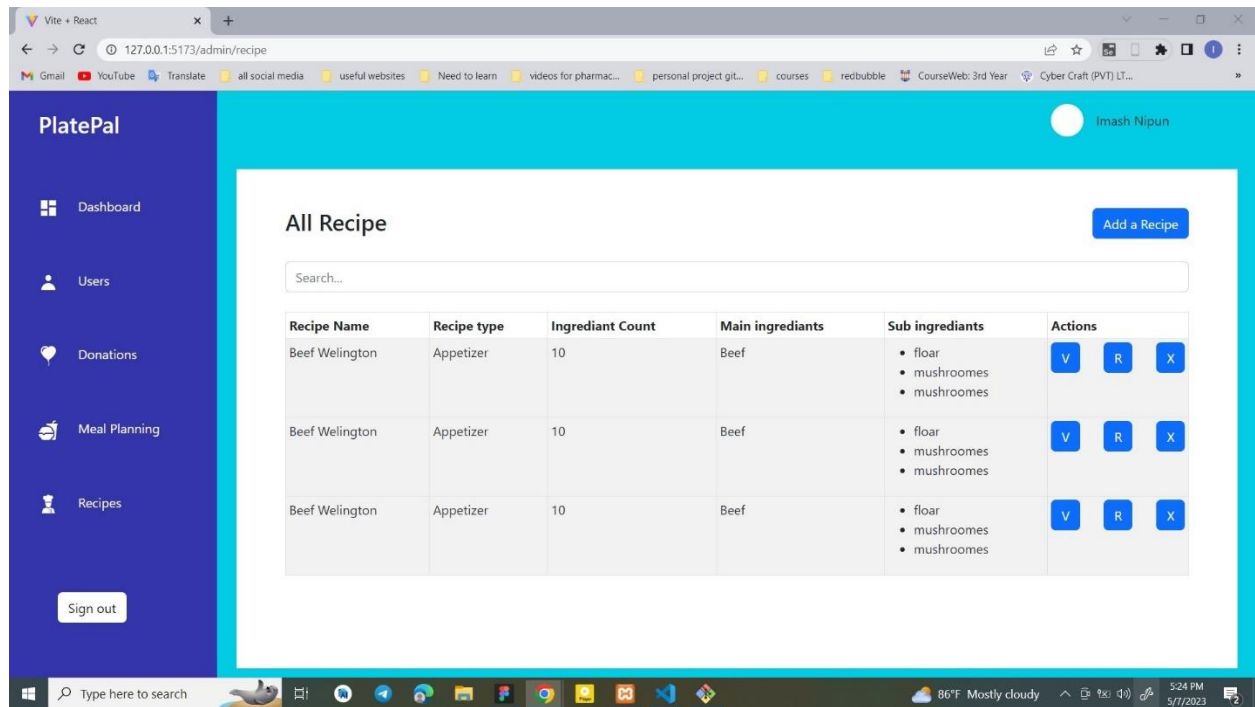
Name	Email	Address	Location	Phone 1	Phone 2
Miulesi Kulasekara	miulesikulesakara@gmail.com	No:21, Temple Rd, Homagama	Piliyandala	0112705357	0773318219
Phanya Savinadi	pahanyasavinadi@gmail.com	No:12/C, Kahathuduwa, Polgasowita	Kahathuduwa	0112876120	071246931
Imash Nipun	imashnipun00@gmail.com	No:38, Kirigampamunuwa, Polgasowita	Kottawa	0773218975	0772257810
Sasith Dewasurendra	sasithdev23@gmail.com	No:2/B, Galle Rd, Galle	Galle	0773450921	0716789245
Thewni Thathsarani	thewnithathsaraniww@gmail.com	No:83, Pittugala, Malabe	Malabe	0112466128	0724372189
Shamal Aravinda	shamal@gmail.com	No:61, Rathnapura rd, Rathnapura	Rathnapura	0772341692	0712456890

Activate Windows
Go to Settings to activate Windows.

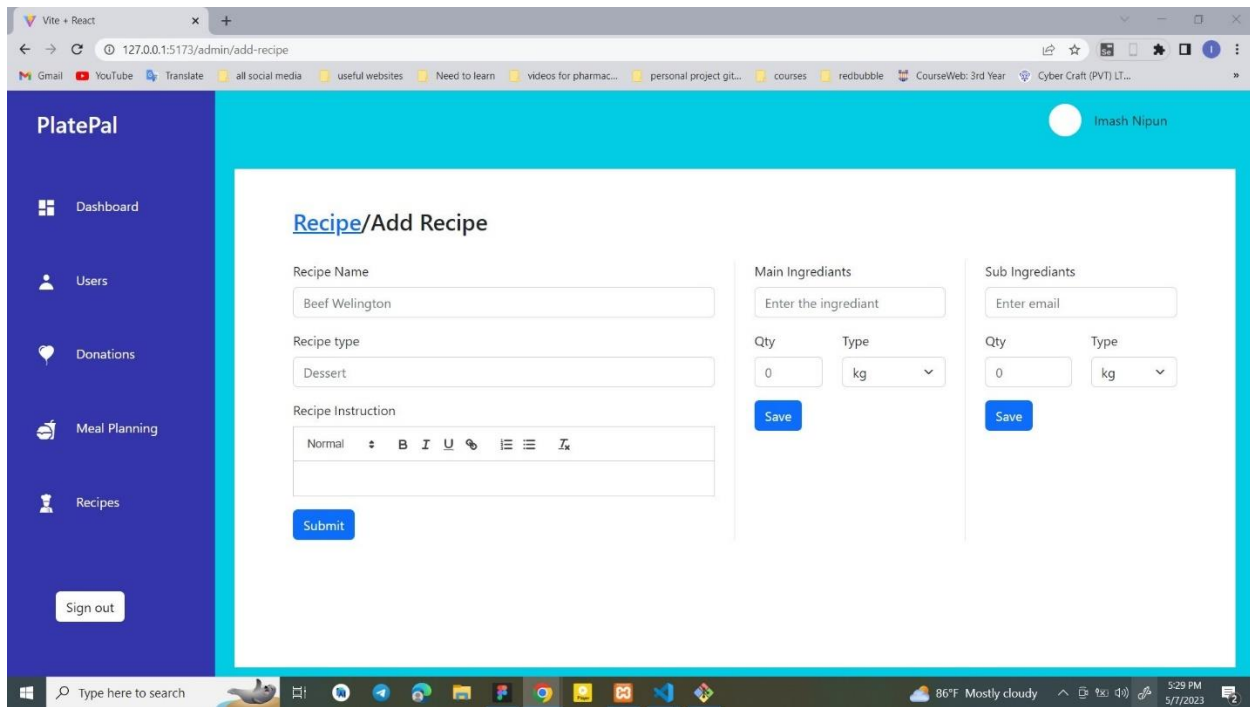
This interface is on the admin side. This interface allows admin to view all donors.

IT Number: IT21034404

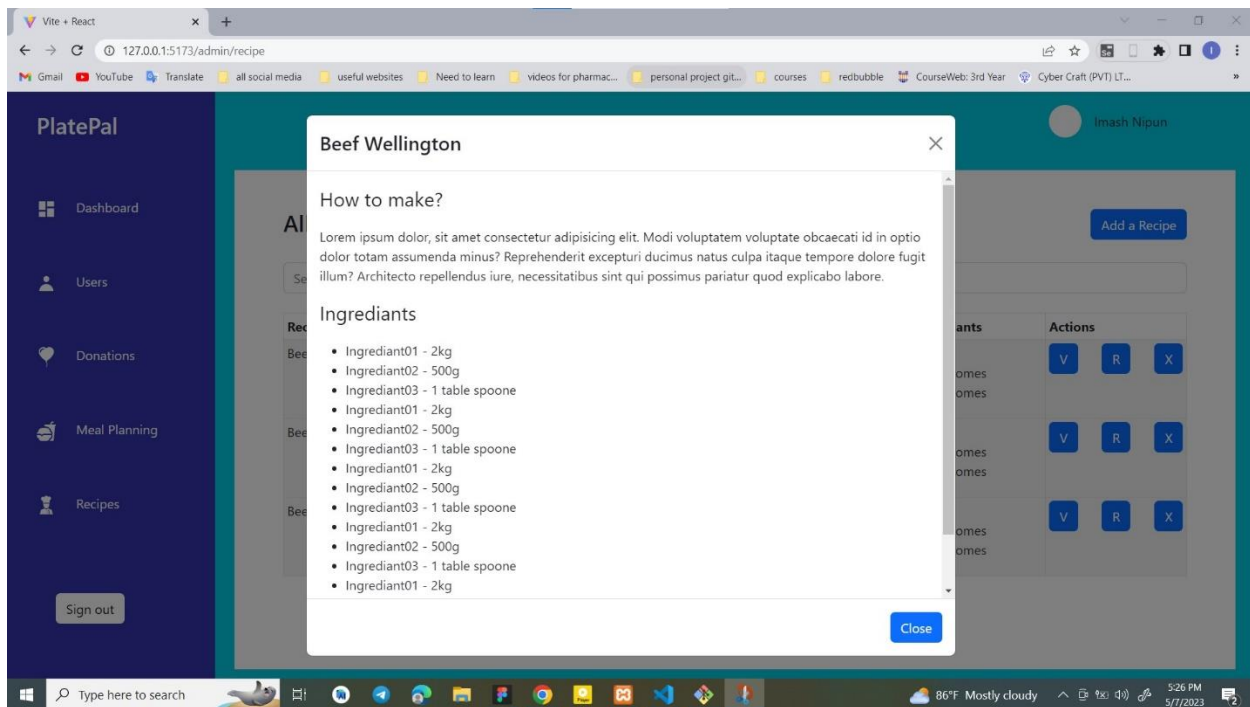
Name: Nipun P.G.I



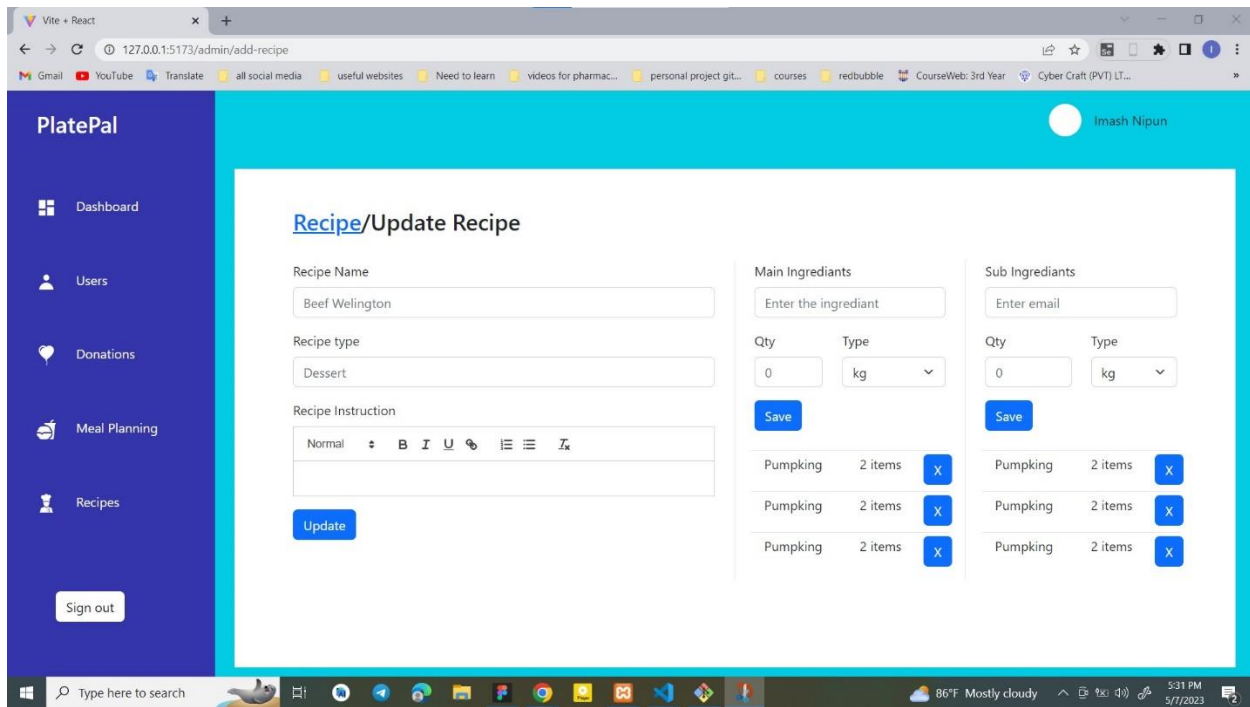
This interface allows admin to view all recipes. When an admin presses the “Recipes” link in the admin dashboard it allows admin to navigate to this interface.



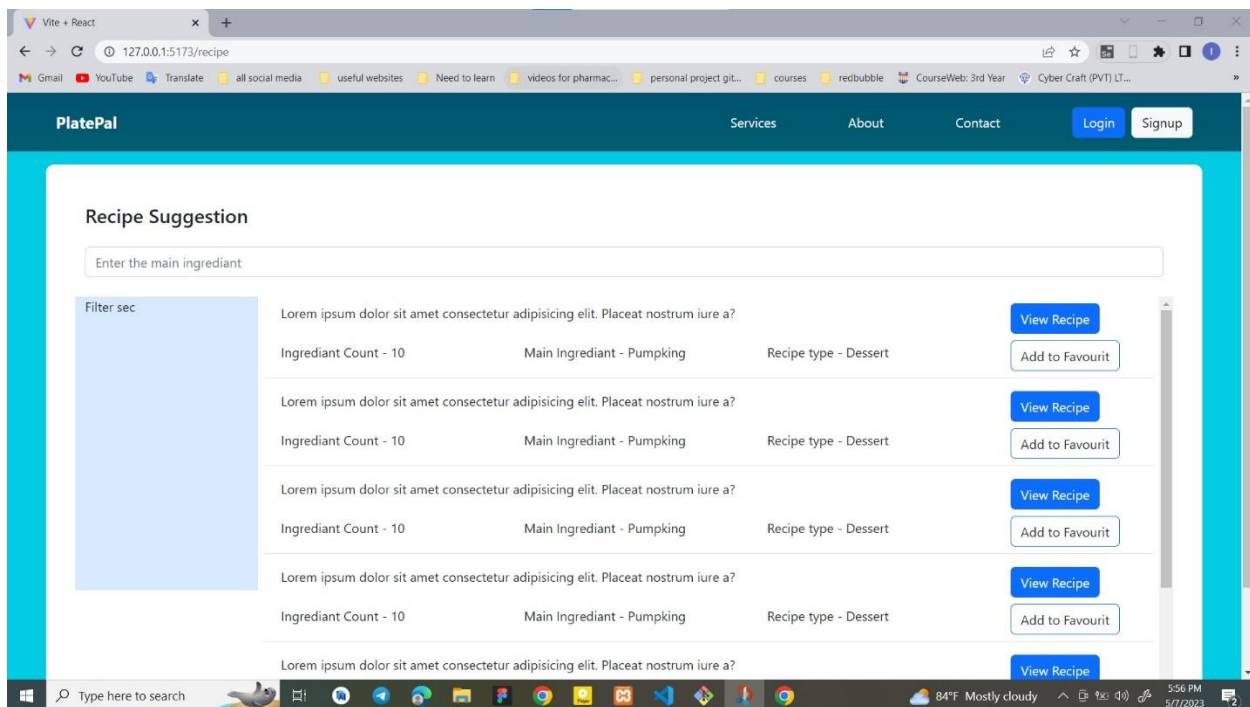
When clicking on the “Add a recipe” button in the previous page an admin can navigate here and add a new recipe.



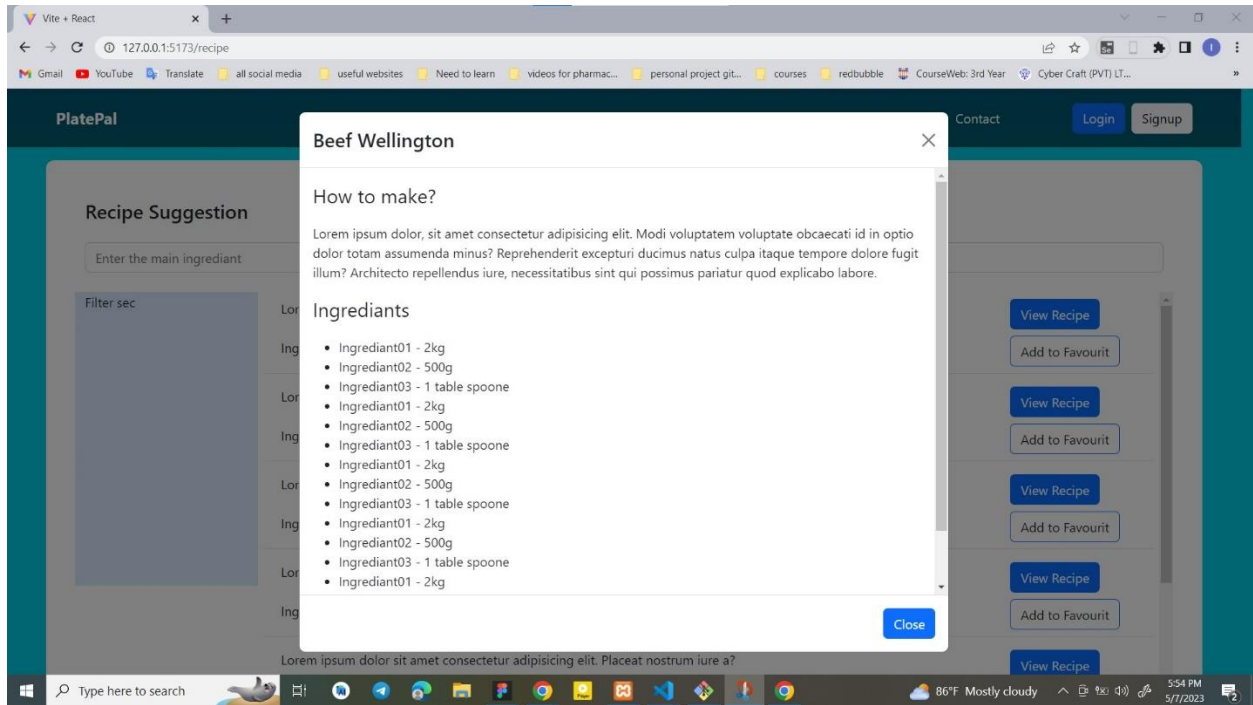
This interface allows admins to view a recipe.



When navigating this interface admin can update existing recipes.



This interface displays a recipe to the users according to the main ingredient. When the user enters the main ingredient user allows to filter recipes according to the main ingredient.



By clicking the “view recipe” button on the previous page this is how users display a single recipe.

IT Number: IT21039140

Name: Dewasurendra S. V

PlatePal

Dashboard

Users

Donations

Meal Planning

Recipes

Sign out

Meal planning

Rice

sufficient weight for one person: 500g

update delete

Rice

sufficient weight for one person: 500g

update delete

Rice

sufficient weight for one person: 500g

update delete

Add a new Meal with weight per person

Food item name

weightPrePerson in grams/g

Add Product

This interface is the admin side of the Meal planning in this page the admin can add a Food item name and the Weight per person from the right-side form. Records can be updated by clicking the update button and records can be deleted by clicking the delete button.

PlatePal

Dashboard

Users

Donations

Meal Planning

Recipes

Sign out

Meal planning / Update the details of

Food item name

weightPrePerson in grams/g

update MealDetails

This Screenshot is updating form, as shown in the above form on clicking the update button it will redirect to this page and the admin can change the data if he/her wants.

PlatePal

Services

About

Contact

Login

Signup

Calculate Food Weight

Food item:

Number of people:

Calculate

Food Item: Rice

Weight per person: 75 g

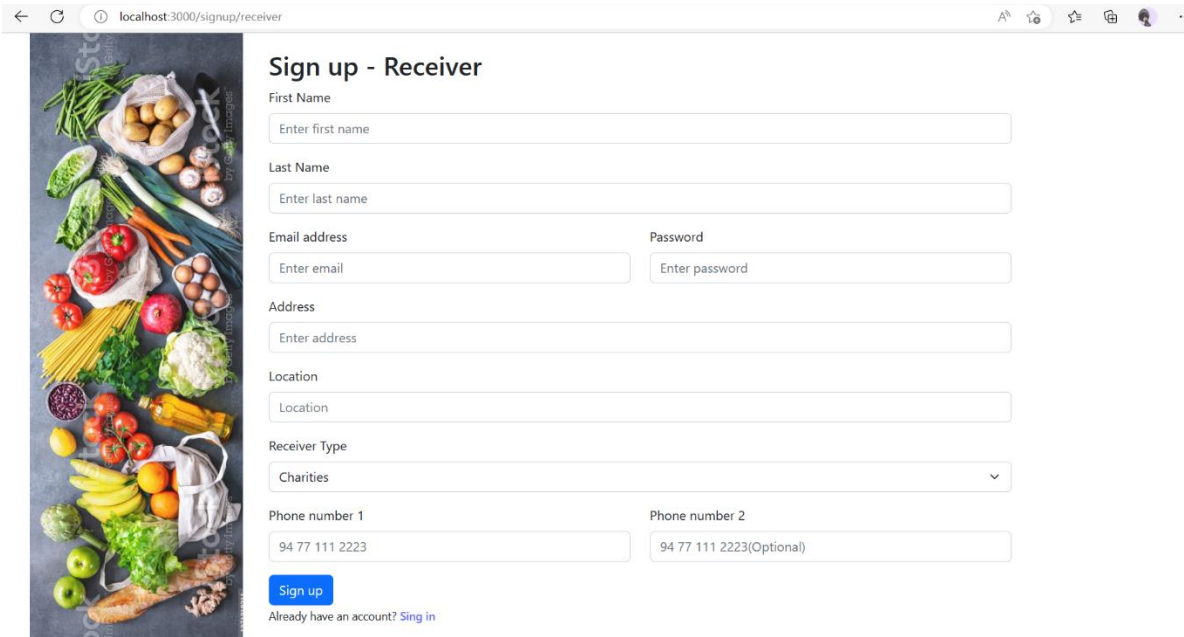
The Entered Number of People: 5

The total weight required is: 375 g

This interface is the user side meal planning interface a user can enter the food item name and the number of people, on Clicking the calculate button the system will show the food item name, Weight per person, the entered number of people, the total weight required for the people.

IT Number: IT21071034

Name: Wanniarachchi T.T



localhost:3000/signup/receiver

Sign up - Receiver

First Name
Enter first name

Last Name
Enter last name

Email address
Enter email

Password
Enter password

Address
Enter address

Location
Location

Receiver Type
Charities

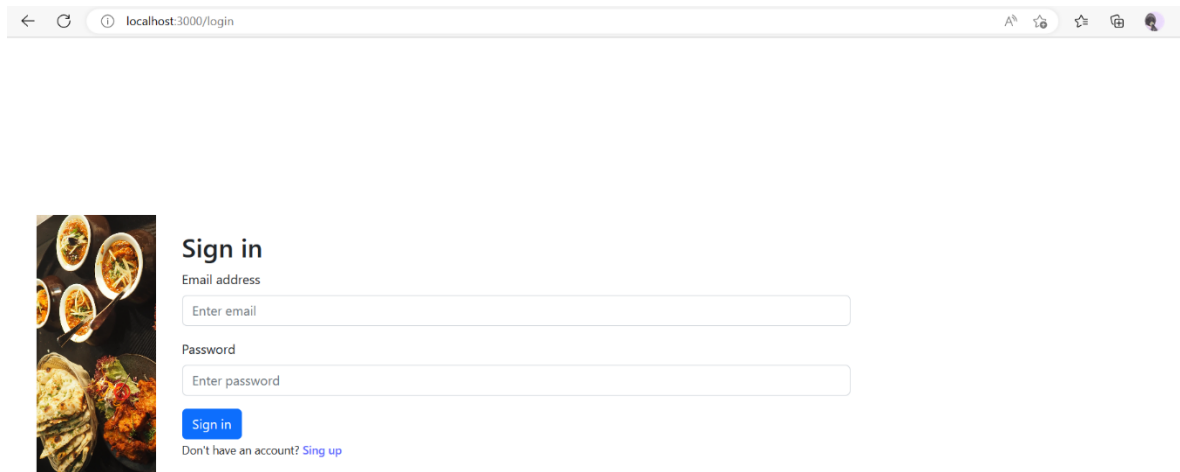
Phone number 1
94 77 111 2223

Phone number 2
94 77 111 2223(Optional)

[Sign up](#)

[Already have an account? Sing in](#)

Sign Up for the Receiver – Unregistered receiver should be register to the system by this signup page.



localhost:3000/login

Sign in

Email address
Enter email

Password
Enter password

[Sign in](#)

[Don't have an account? Sing up](#)

Login for the Receiver – Registered users can log in to the system by giving their credentials through this login page.


#	First Name	Last Name	Email	Address	Location	Receiver Type	Phone 1	Phone 2
1	Amal	Sooriya	amal@gmail.com	Matara	Waligama	Charity	0713004050	0772008040
2	Senal	Withanage	senal@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
3	Kamal	Widanapathirana	kamal@gmail.com	Matara	Waligama	Charity	0713004050	0772008040
4	Namal	Weerasekera	namal@gmail.com	Matara	Hiththatiya	Charity	0713004050	0772008040
5	Nimali	Gunasekera	nimali@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
6	Vihanga	Sooriya	vihanga@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
7	Lily	Sooriya	lily@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
8	Kamala	Sooriya	kamala@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
9	Perera	Sooriya	perera@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
10	Alvis	Sooriya	alvis@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
11	Gaguni	Sooriya	gaguni@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
12	John	Devid	john@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
13	Amil	Sooriya	amil@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040
14	Harry	Perera	harry@gmail.com	Matara	Isadin Town	Charity	0713004050	0772008040

All the receivers – Admin can view all the receivers through this table.

#	First Name	Last Name	Status	Donor Name	Donor Telephone 1	Donor Telephone 2
1	Amal	Sooriya	Approved	Siril	0713004050	0772008040
2	Senal	Withanage	Approved	Siril	0713004050	0772008040
3	Kamal	Widanapathirana	Approved	Siril	0713004050	0772008040
4	Namal	Weerasekera	Approved	Siril	0713004050	0772008040
5	Nimali	Gunasekera	Approved	Siril	0713004050	0772008040
6	Vihanga	Sooriya	Approved	Siril	0713004050	0772008040

All the approval list by donors – Receivers can view their orders through this page.

← localhost:3000/profile



User Profile

Profile - Receiver

First Name

Last Name

Email address

Password

Address

Location

Receiver Type

Phone number 1

Phone number 2

[Update](#)

[Come back later?](#) [Logout](#)

Profile Update – Receiver can update the details through this profile page.

Screenshots of the MongoDB (Member wise)

Name: Kulasekara D.A.M.N

IT Number: IT21028878

Donors Schema

The screenshot shows the MongoDB Atlas web interface. The left sidebar contains navigation options: DEPLOYMENT, Database (selected), Data Lake (PREVIEW), SERVICES, Triggers, Data API, Data Federation, Search, SECURITY, Quickstart, Backup, Database Access, Network Access, and Advanced. The main panel displays the 'AFProjectDB' database with collections: donation_requests, donations, donors (selected), and users. The 'Find' tab is active, showing a query filter bar with the text 'Type a query: { field: 'value' }'. Below the filter, the query results are displayed as a JSON document:

```
{  "_id": ObjectId('6456792c42b8646d894fe507'),  "name": "Miulesi Kulasekara",  "email": "miulesikulasekara@gmail.com",  "password": "3X8116LrIQwa",  "address": "No:21, Temple Rd, Homagama",  "location": "Piliyandala",  "tele": Object,  "__v": 0}
```

Donations Schema

The screenshot shows the MongoDB Atlas web interface. The left sidebar contains navigation options: DEPLOYMENT, Database (selected), Data Lake (PREVIEW), SERVICES, Triggers, Data API, Data Federation, Search, SECURITY, Quickstart, Backup, Database Access, Network Access, and Advanced. The main panel displays the 'AFProjectDB' database with collections: donation_requests, donations (selected), donors, and users. The 'Find' tab is active, showing a query filter bar with the text 'Type a query: { field: 'value' }'. Below the filter, the query results are displayed as a JSON document:

```
{  "_id": ObjectId('64567ee4f77bc84cff828316'),  "donation": Object,    "food": "Suger",    "quantity": 5,    "unit": "Kg",    "expiredate": "2025.05.02",    "currentdate": "2023.04.28",    "donorid": "6456792c42b8646d894fe507",    "description": "Suger 5kg donation.",  "__v": 0}
```

Donation requests schema

The screenshot shows the MongoDB Atlas interface for the 'AFProjectDB' database. The 'donation_requests' collection is selected. The 'Find' tab is active, showing a query filter and a list of query results. The query results show a single document with the following fields:

```
{
  "_id": ObjectId('645695863cb8940e33c8cdcc'),
  "organization": "Rainbow Elder Care Home",
  "food": "Suger",
  "quantity": 2,
  "unit": "Kg",
  "time": "just now",
  "__v": 0
}
```

Users Schema

The screenshot shows the MongoDB Atlas interface for the 'AFProjectDB' database. The 'users' collection is selected. The 'Find' tab is active, showing a query filter and a list of query results. The query results show two documents with the following fields:

```
{
  "_id": ObjectId('6456792d42b8646d894fe509'),
  "email": "miulesikulesakara@gmail.com",
  "password": "3X8116Lr!Qwa",
  "__v": 0
}, {
  "_id": ObjectId('645679ed42b8646d894fe50d'),
  "email": "pahanyasavinadi@gmail.com",
  "password": "ndbs45417#",
  "__v": 0
}
```

IT Number: IT21034404

Name: Nipun P.G.I

Recipes schema

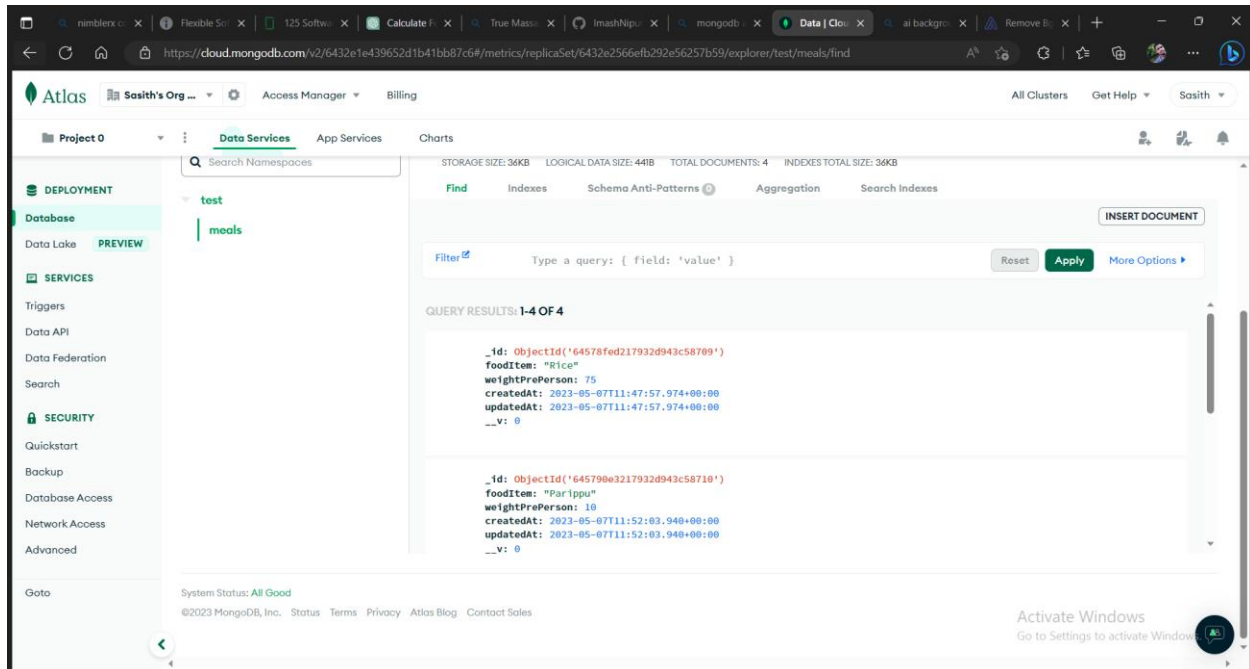
The screenshot shows the MongoDB Atlas web interface. The browser address bar displays the URL: `cloud.mongodb.com/v2/644fc3079e69728d0389db5#/metrics/replicaSet/644fca79a456f1b107d40a3/explorer/afdb/recipes/find`. The Atlas logo and navigation tabs (AF PROJECT, Data Services, App Services, Charts) are visible at the top. On the left sidebar, the 'Database' section is active, showing the 'afdb' database and the 'recipes' collection. The main panel displays the 'afdb.recipes' collection with a search bar and a list of documents. One document is expanded, showing a recipe for 'Beef wellington' with ingredients like beef and mushrooms.

```
{
  "_id": ObjectId("6456cc1c7e2dab66c2f8d23f"),
  "recipe_name": "Beef wellington",
  "recipe_type": "Apotizer",
  "description": "first prepare the beef",
  "main_ingredients": Array
    0: Object
      ingredient_name: "beef"
      qty: 2
      type: "kg"
      _id: ObjectId("6456cc1c7e2dab66c2f8d249")
    1: Object
      ingredient_name: "mushroom"
      qty: 600
      type: "g"
      _id: ObjectId("6456cc1c7e2dab66c2f8d241")
  "sub_ingredients": Array
    0: Object
      ...
}
```

IT Number: IT21039140

Name: Dewasurendra S. V

Meals schema



IT Number: IT21071034
Name: Wanniarachchi T.T

Receivers schema

The screenshot shows the MongoDB Atlas interface for a cluster named 'Thewuni's Or...'. The left sidebar contains navigation options: DEPLOYMENT, Database (selected), SERVICES, and SECURITY. Under Database, there are links for Data Lake, PREVIEW, Triggers, Data API, Data Federation, Search, Backup, Database Access, Network Access, and Advanced. The main panel displays the 'Receivers' collection in the 'Receiverdb' database. The 'Preview' tab is active, showing a list of documents. The first document is expanded, revealing the following JSON structure:

```
{
  "_id": ObjectId("64578838fcc27b3ac8b4a5b8"),
  "fname": "Saman",
  "lname": "Perera",
  "email": "samon@gmail.com",
  "password": "abc",
  "address": "matara",
  "location": "Sri Lanka",
  "category": "Charity",
  "tele": {
    "phonea": "07120000000",
    "phoneb": "07120000000"
  },
  "__v": 0
}
```

The interface also shows system status as 'All Good' and a footer with copyright information for MongoDB, Inc. (2023).

The screenshot shows the MongoDB Atlas interface for the same cluster. The 'Find' tab is active, displaying a list of documents. The first document is expanded, revealing the following JSON structure:

```
{
  "_id": ObjectId("645788f9fcc27b3ac8b4a5ba"),
  "fname": "Siril",
  "lname": "Sumanasekara",
  "email": "siril@gmail.com",
  "password": "123",
  "address": "colombo",
  "location": "Sri Lanka",
  "category": "child orphanages",
  "tele": {
    "phonea": "07120000001",
    "phoneb": "07120000002"
  },
  "__v": 0
}
```

The interface also shows system status as 'All Good' and a footer with copyright information for MongoDB, Inc. (2023).

Atlas Thewuni's Or... Access Manager Billing All Clusters Get Help Thewuni

Project 0 Data Services App Services Charts

Search Namespaces

DEPLOYMENT Database Data Lake PREVIEW SERVICES Triggers Data API Data Federation Search SECURITY Quickstart Backup Database Access Network Access Advanced Goto

Receiverdb donors receivers users

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 9758 TOTAL DOCUMENTS: 4 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter Type a query: { field: 'value' } Reset Apply More Options

```
{
  "_id": ObjectId("64578c41fcc27b3ac8b4a5bc"),
  "fname": "Nimali",
  "lname": "Sooriyawansa",
  "email": "nimali@gmail.com",
  "password": "456",
  "address": "matara",
  "location": "Sri Lanka",
  "category": "Old Orphanages",
  "tele": {
    "phonea": "07120000011",
    "phoneb": "07120000022"
  },
  "__v": 0
}
```

System Status: All Good
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Atlas Thewuni's Or... Access Manager Billing All Clusters Get Help Thewuni

Project 0 Data Services App Services Charts

Search Namespaces

DEPLOYMENT Database Data Lake PREVIEW SERVICES Triggers Data API Data Federation Search SECURITY Quickstart Backup Database Access Network Access Advanced Goto

Receiverdb donors receivers users

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 12KB TOTAL DOCUMENTS: 5 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter Type a query: { field: 'value' } Reset Apply More Options

```
{
  "_id": ObjectId("64578d2afcc27b3ac8b4a5be"),
  "fname": "Amali",
  "lname": "Weerasooriya",
  "email": "amali@gmail.com",
  "password": "1111",
  "address": "colombo",
  "location": "Sri Lanka",
  "category": "Organizations",
  "tele": {
    "phonea": "07120000033",
    "phoneb": "07120000044"
  },
  "__v": 0
}
```

System Status: All Good
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