

## ValWaste Users Features:

### Driver

- Account made by Admin
- See schedule
- Able to know what barangay in valenzuela hes assigned by the Admin
- Can see the pin location depending on their schedule assigned by admin.
- Can click the pin and see possible ways of direction for driver to choose which is shorter or the fastest route before the collection
- Can also redirect fastest route on the spot during the collection

### Barangay Official

- Account made by Admin
- Home page -See Schedule of their waste collection
- See Schedule
- Report to admin
- See reports from the Residents
- Can see the drivers location & Estimated time drop by
- Request schedule for left over waste that forgot to pick up.
- Barangay segregation ranking system with rewards

### Resident

- Register
- Sign in
- Home page - See Schedule of their waste collection
- Able to report (Issue or their segregation waste ready)
- Can see the drivers location & Estimated time drop by
- Segregation Info
- Ready for Pickup Submission
- Barangay Segregation Ranking System with Rewards

### Admin

- Can make account of the;
  - Barangay Official
  - Driver

### Manages the Admin Website

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## Refined Version

# ValWaste: Enhancing Waste Management with Route Optimization

## Resident (User Role)

### Features and Pages

- **Register**
  - **Personal Information (Section 1)**
    - First Name
    - Surname
    - Contact No.
    - Date of Birth
    - Gender
  - **Registered Address (Section 2)**
    - Valenzuela (Default)
    - Barangay (List of Barangay in Valenzuela)
    - Street
  - **Account Credentials (Section 3)**
    - Email
    - Password (Your password must:
      - - Be at least 8 characters
      - - Include at least one number
      - - Include at least one uppercase letter
      - - Include at least one lower-case letter
      - - Include at least one special character (!@#\$%)
  - **Confirm Password**
  - **Please Select your Category**
    - Resident (only choice or default)
  - **I agree to the Terms and Conditions and Privacy Policy (Checkbox)**
- **Sign in**
  - Email
  - Password
- **Need a ValWaste account? Create an account. (Will go to the Register Page)**
- **Forgot password?**

## **Navigation Bar:**

- **Home Page – Dashboard showing key information such as:**
    - **Next Collection – Displays the next scheduled waste collection date and type.**
    - **Active Reports – Shows the number of reports you have submitted to your Barangay Official regarding issues or concerns.**
    - **Barangay Ranking – Displays your barangay’s current segregation ranking.**
  - **Report Page – Allows residents to submit reports about issues, concerns, or when waste is ready for pickup.**
  - **Schedule Page – Displays your barangay’s waste collection schedule.**
  - **Profile Page – Accessed by tapping the profile picture or from the navigation menu. May include personal information, account settings, and report history.**
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## **Segregation (Integrated in the Home Page)**

**The segregation section will:**

- **Display waste categories as cards (Biodegradable, Non-biodegradable, Recyclable, Hazardous, etc.).**
  - **Allow the admin to add new categories (e.g., Metals, Electronics) with their own descriptions, examples, and disposal tips.**
  - **Make each category clickable to show full details and a “Report This Waste is Ready” button.**
  - **Link directly to the report form with the category pre-selected.**
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## **Barangay Segregation Ranking System with Rewards**

- Displays a leaderboard ranking barangays based on the total amount of properly segregated and recycled waste.
  - Shows Top 3 Barangays:
    - 1st place – Prize or recognition
    - 2nd & 3rd place – Certificate or recognition
  - Rankings are updated regularly based on collection data.
- 

#### **Detailed Report Page (Linked to Rankings)**

- Explains why a barangay earned its position.
- Displays supporting details such as:
  - Total weight of recycled waste
  - Waste reduction percentage
  - Images or charts of collection statistics
- Managed and updated by the admin.

#### **Barangay Official (User Role)**

## 1. Dashboard

The **Dashboard** functions as the central monitoring hub of the system. It provides a real-time overview of:

- Total number of reports
- Total trucks in operation
- Ongoing issues
- Latest reports
- Current announcements
- Segregation Analytics displayed as a bar chart (Which barangay has the most segregated waste, im not sure how is the logic but before we can do that I hope that you can guide me or what will be the best option)
- A map of Valenzuela City showing current report locations and truck movement

### Layout Options:

- Option 1: **Bar chart on the left, map on the right**
- Option 2: **Bar chart on top, map at the bottom**

## 2. User Management

This section handles account administration (excluding Resident accounts). Features include:

- Creation of single or bulk accounts via Excel import
- Viewing and managing user details (name, email, role)
- Password reset functionality
- **Ability to disable or deactivate accounts** that are misused or violate platform policies

## 3. Report Management

All reports submitted by **Barangay Official accounts** are routed here. Admins can:

- Review each report's content
- Assess its validity and urgency
- Decide whether administrative action is required

## 4. Schedule

The **Schedule** page manages deployment plans for garbage trucks in Valenzuela City. Admins can:

- View the schedule per barangay
- Assign trucks based on type (variant), date, and time
- Designate responsible teams or drivers for each route

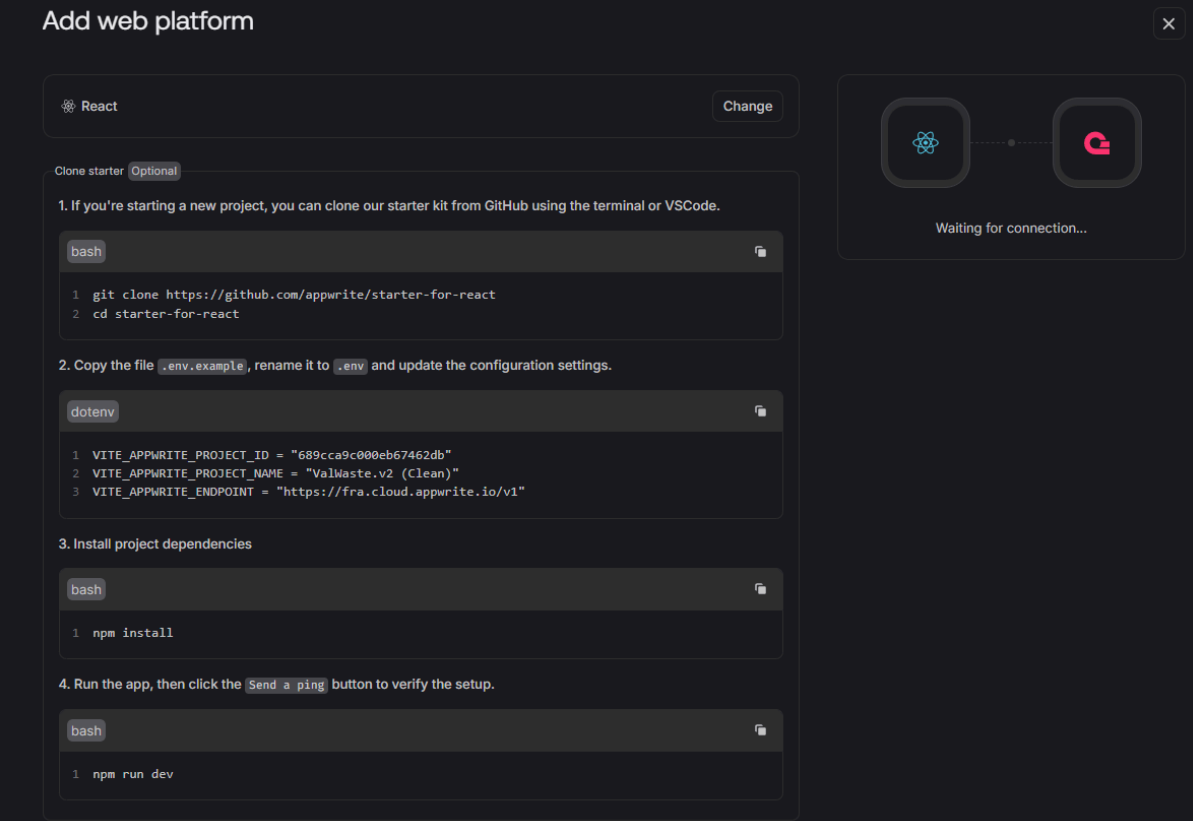
## **5. Attendance**

Drivers are responsible for logging the attendance of their team members through the mobile app. These records are synced to the Attendance page for Admin visibility. Admins can:

- Monitor presence or absence per team member
- Use this data for accountability and internal reference

## Appwrite setup: (for Admin Web App)

Create organization → Create a project (choose frankfurt) → Choose a platform **Web App** / ~~Mobile App~~ → Skip



The screenshot shows the 'Add web platform' interface in Appwrite. At the top, 'React' is selected as the platform, with a 'Change' button. Below this, there's a section for cloning the starter kit, labeled 'Clone starter Optional'. It contains four numbered steps:

1. If you're starting a new project, you can clone our starter kit from GitHub using the terminal or VSCode.  
A terminal window shows:

```
bash
1 git clone https://github.com/appwrite/starter-for-react
2 cd starter-for-react
```
2. Copy the file `.env.example`, rename it to `.env` and update the configuration settings.  
A terminal window shows:

```
dotenv
1 VITE_APPWRITE_PROJECT_ID = "689cca9c000eb67462db"
2 VITE_APPWRITE_PROJECT_NAME = "ValWaste.v2 (Clean)"
3 VITE_APPWRITE_ENDPOINT = "https://fra.cloud.appwrite.io/v1"
```
3. Install project dependencies  
A terminal window shows:

```
bash
1 npm install
```
4. Run the app, then click the `Send a ping` button to verify the setup.  
A terminal window shows:

```
bash
1 npm run dev
```

On the right side of the interface, there's a visual representation of the connection between the React app and the Appwrite platform, with the text 'Waiting for connection...' below it.

Next go to auth → Team → Create team. After you created a team go to Database and create collection name: users and id: user



Create a user; Email & Password

Id: admincred

Add it to Auth Team (not necessary).

Create user

Name optional

admin

Email optional

admin@valwaste.com

Phone optional

Enter phone

Password optional

admin001

User ID

Enter a custom User ID. Leave blank for a randomly generated one.

admincred9/36

Allowed characters: alphanumeric, non-leading hyphen, underscore, period

Cancel

Create

Create a member and enter the email you assign on the admin.

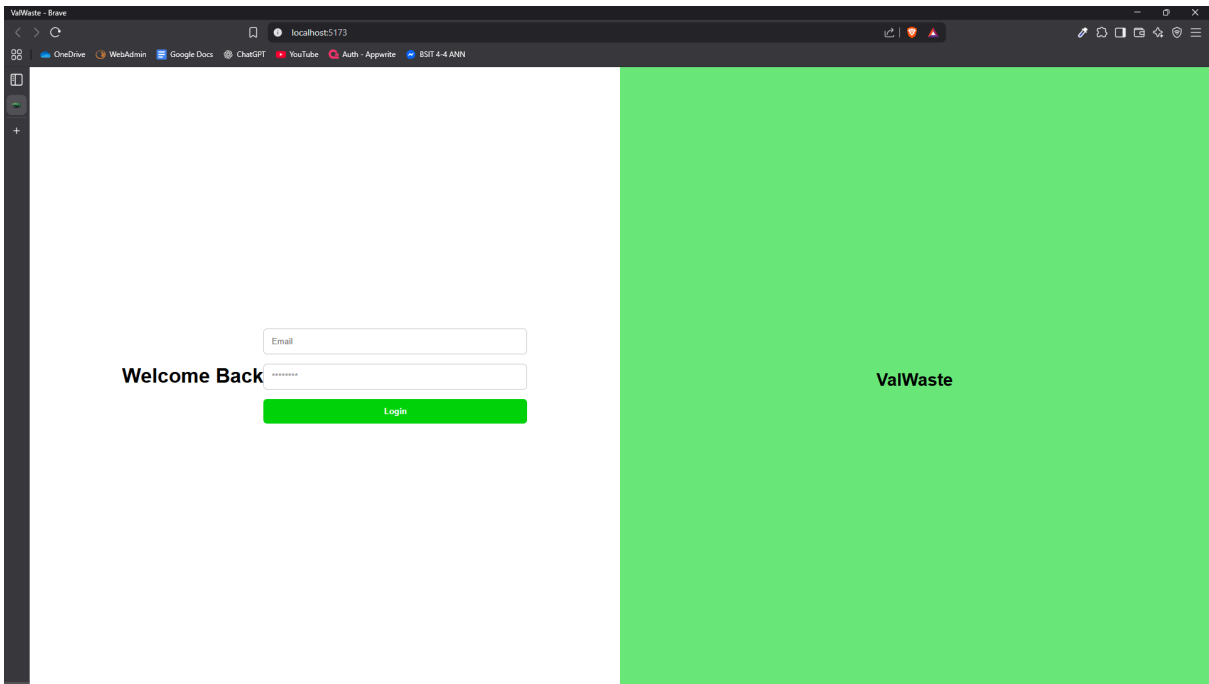
Now your auth for admin is now created you can now use them in login page to access web pages.

→ Create your system. Start with installing all runtime environments you will use.

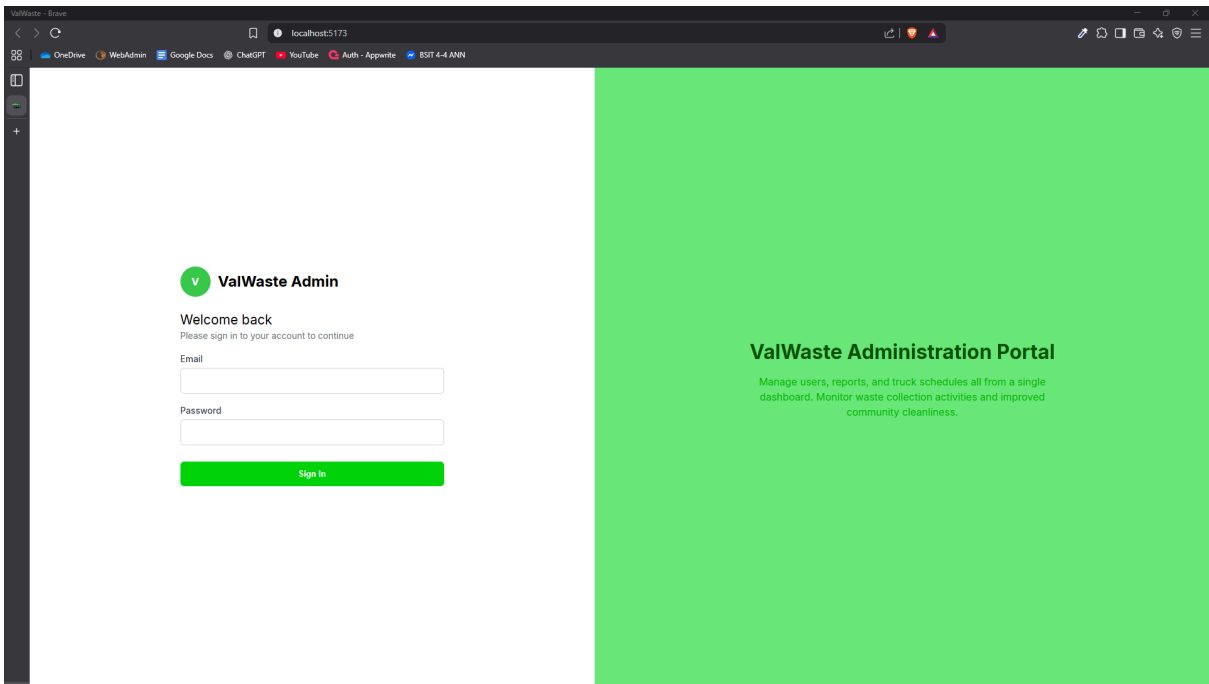
Now create you login.jsx page

First create a input field text box for the email and password and style it whatever style you want in CSS.

From this:



To this:



Now the login page is done we will now create the next page: Dashboard

Create a component and route it in your main.jsx and import your dashboard component →



```
1 import { createBrowserRouter, Router  
  Provider } from 'react-router-dom';
```

Import { createBrowserRouter, RouterProvider } from 'react-router-dom';

And then



```
1 const router = createBrowserRouter([  
2   { path: '/', element: <Login /> },  
3   { path: '/dashboard', element: <Dashboard/>}  
4 ])  
5  
6 ReactDOM.createRoot(document.getElementById('root')).render(  
7   <React.StrictMode>  
8     <RouterProvider router={router} />  
9   </React.StrictMode>,  
10  )
```

- Import all the components you want to show for different URLs.
- Creates a router with a list of {path, element} entries (your route table).
- Next mounts that router so the app reacts to URL changes and renders the right component.

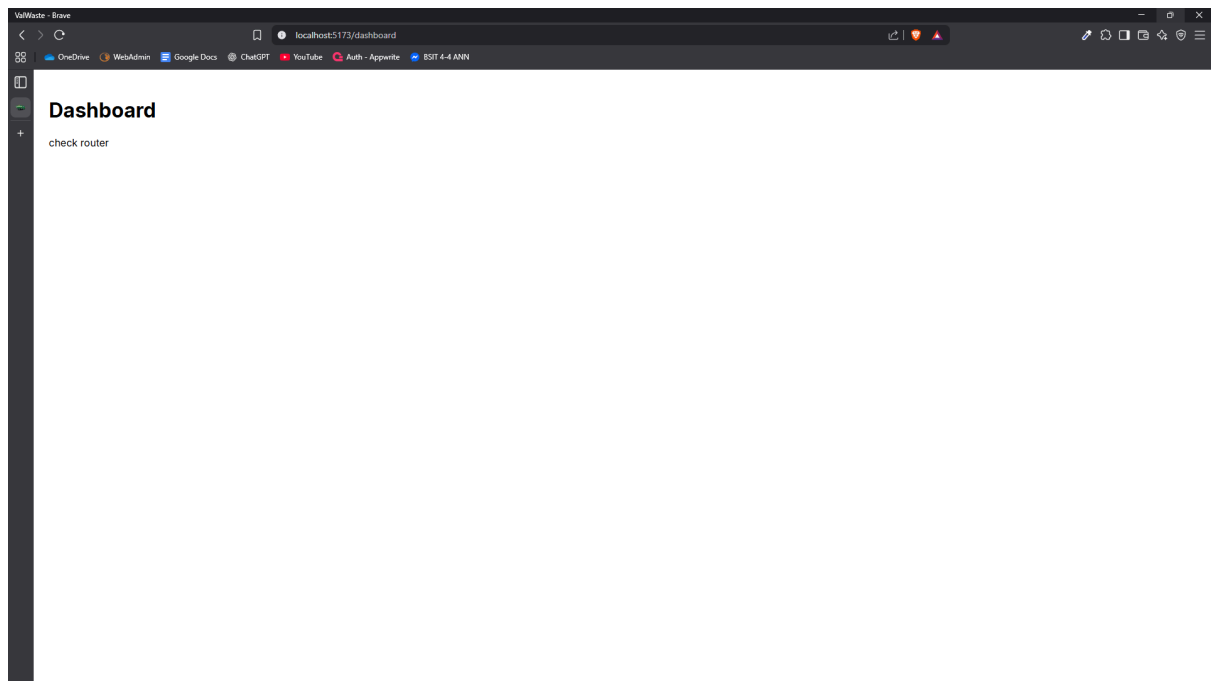
In Login.jsx

Import { useNavigate } from 'react-router-dom'; → pulls in react routers navigation hook

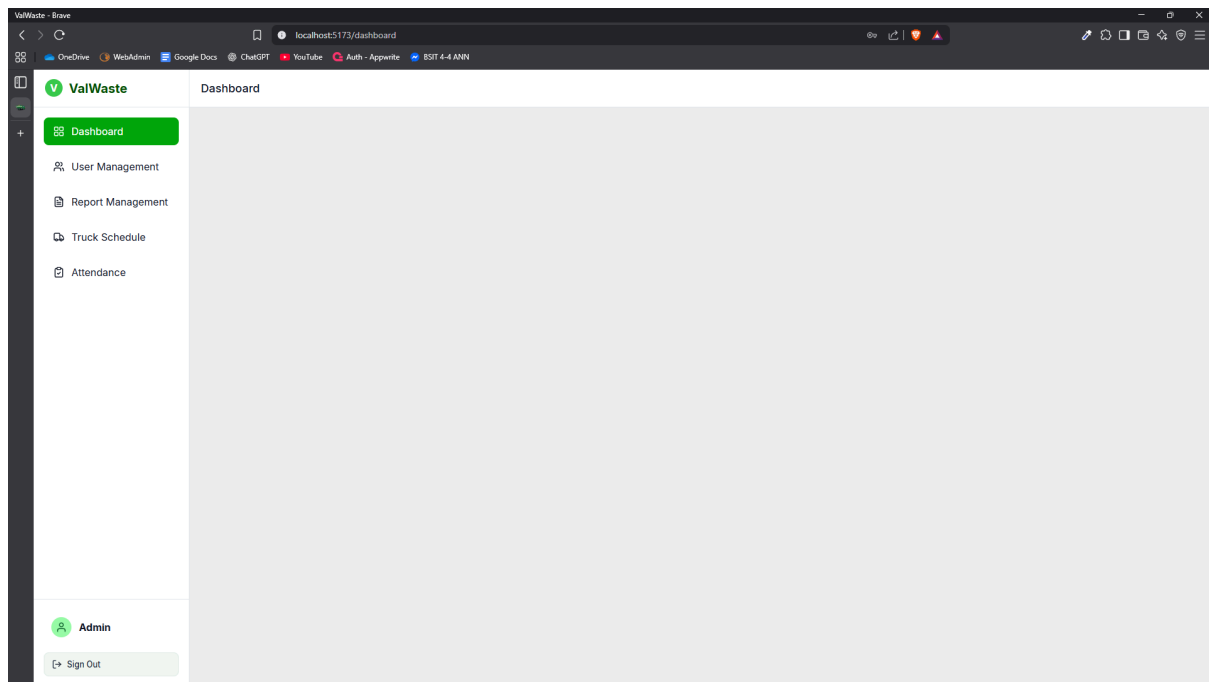
const navigate = useNavigate(); → Create a navigate function bound to the current router context.

navigate('/dashboard'); → Pushes /dashboard into browser history; router matches that path and render <Dashboard />

After that route all the pages left



Now make the rest of the components and design it:



Next is route it all so all the pages are connected; Make the sign out functionable.

Now for the login make an auth I used Appwrite for database make the account and connect your projectId and the API endpoint.

Once you're done you have now a clean setup of Web pages and login auth of the Admin. 😊

What I did next is set up the mobile applications (Users):

**Resident** → I Started with resident app  
Barangay Official  
Driver

Make up your mind if all the user will be on the same application or different apps each user.

