Empowering Urban Communities to Reduce Waste

The current waste management system in urban India is facing various challenges, from improper segregation to inefficient collection and disposal. This presentation outlines a comprehensive solution to address these issues using a community-driven approach with a data-driven dashboard and a website.

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Challenges of Waste Management in Urban India

Inadequate Segregation

Many urban areas in India struggle with inadequate waste segregation, leading to inefficient recycling and improper disposal.

Overburdened Infrastructure

Waste collection infrastructure is often inadequate, resulting in overflowing bins, illegal dumping, and environmental concerns.

Lack of Awareness

Limited awareness about waste management practices among residents leads to improper disposal habits, contributing to the problem.

Introducing the Data-Driven Waste Tracking Dashboard

Real-Time Tracking

Provides real-time insights into waste generation, segregation, recycling, and composting at the household and community levels.

Personalized Feedback

Generates personalized reports and recommendations to help residents improve their waste management practices and reduce their footprint.

Data-Driven Insights

Provides valuable data to local authorities, enabling them to optimize waste collection routes and improve resource allocation.

Empowering Households to Segregate, Recycle, and Compost

Recycling

Provides guidance on recyclable materials, encourages responsible disposal, and connects users to local recyclers.

Composting

Offers information on composting techniques, promotes composting practices, and encourages the creation of organic fertilizer.

Reducing Waste

Provides tips and strategies for reducing overall waste generation through conscious consumption and lifestyle changes.

Visualizing Individual and Community Impact

50%

Reduction

Illustrates the percentage reduction in waste generation achieved by individual households and communities.

30%

Recycling

Highlights the percentage of recyclable materials collected and processed through the initiative.

20%

Composting

Shows the percentage of organic waste composted, promoting resource recovery and sustainable practices.

Fostering Sustainable Habits through Gamification

1

Badges

Awards badges for achieving milestones and completing challenges, motivating users to engage in sustainable practices.

2

State-wise plots & data visualization

Displays state-wise rankings based on individual and community performance, fostering friendly competition and encouraging participation.

3

Feedback-based results

Offers feedback-based resultsfor consistent effort and achievement, incentivizing sustainable behaviors and rewarding responsible actions.

Integrating with Local Recyclers and Waste Services

1

Mapping

Maps local recyclers and waste collection services, providing convenient access to relevant resources.

2

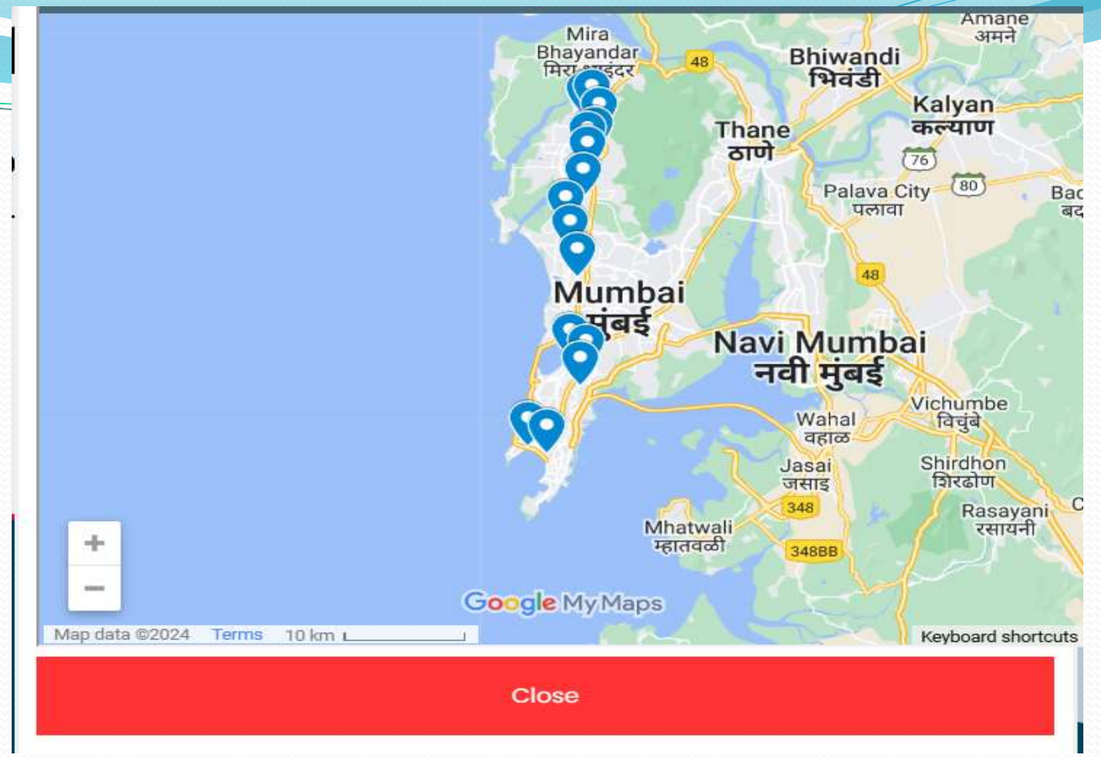
Scheduling

Allows users to schedule pick-ups for recyclable and compostable waste, streamlining the process and promoting responsible disposal.

3

Payment

Facilitates secure payment for waste collection services, offering a convenient and seamless experience.



Scaling the Solution: Expanding to More Communities

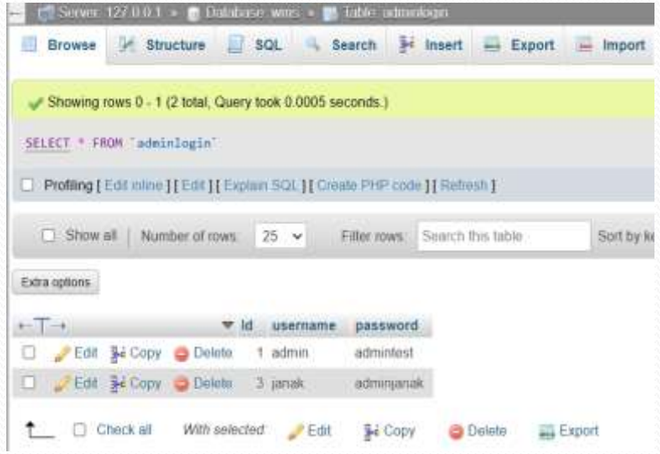
Tech Stack: Building a Sustainable Future

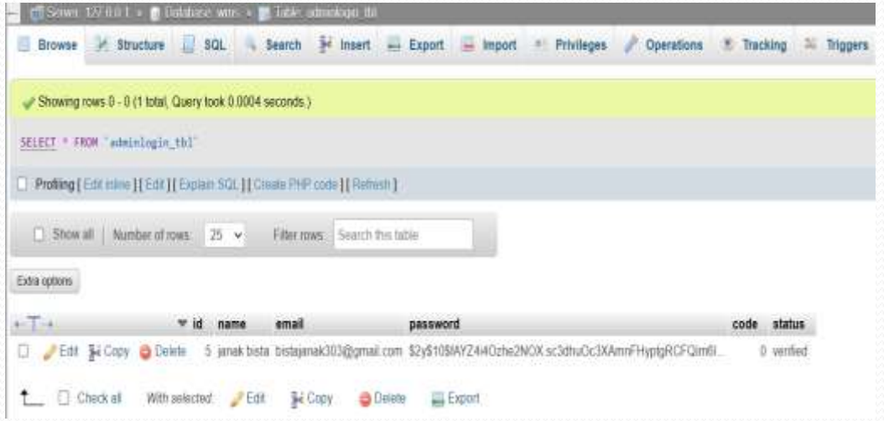
The technology stack used in this project includes:

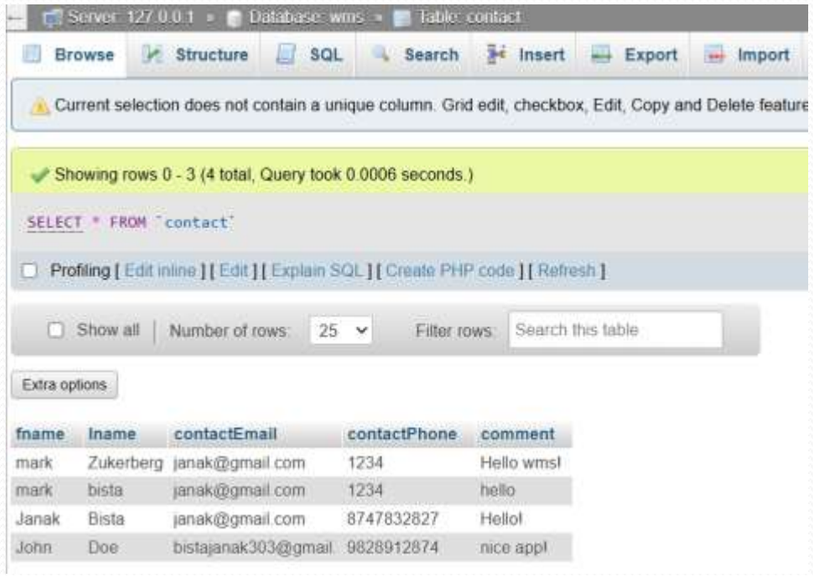
Frontend: Html, css, JavaScript, React, React Native(depending on requirement)

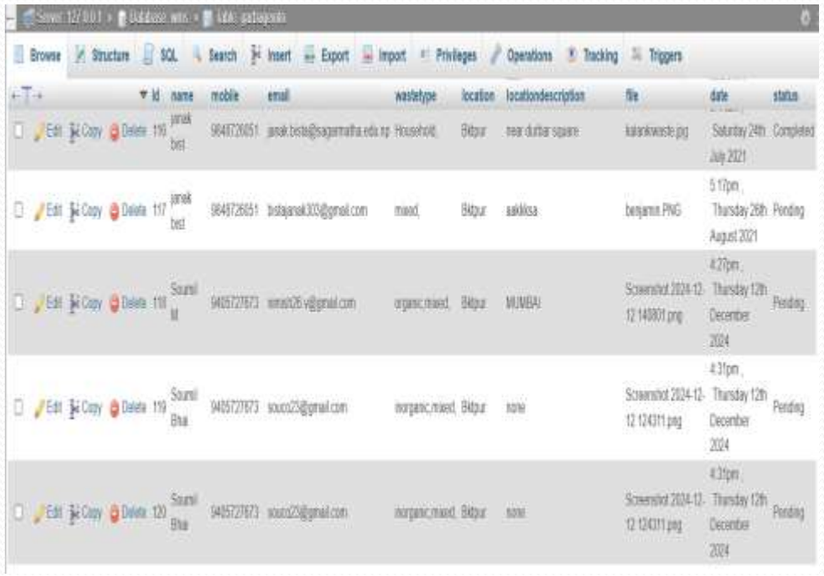
Backend: Firebase/SQL ,PHP/Python depending on need, for database and backend , respectively

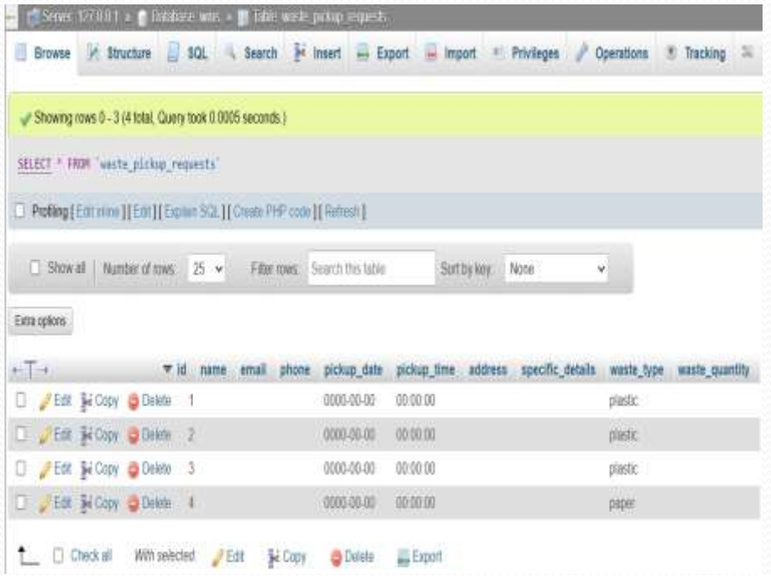
DATABASE STORAGE ON phpMyAdmin :

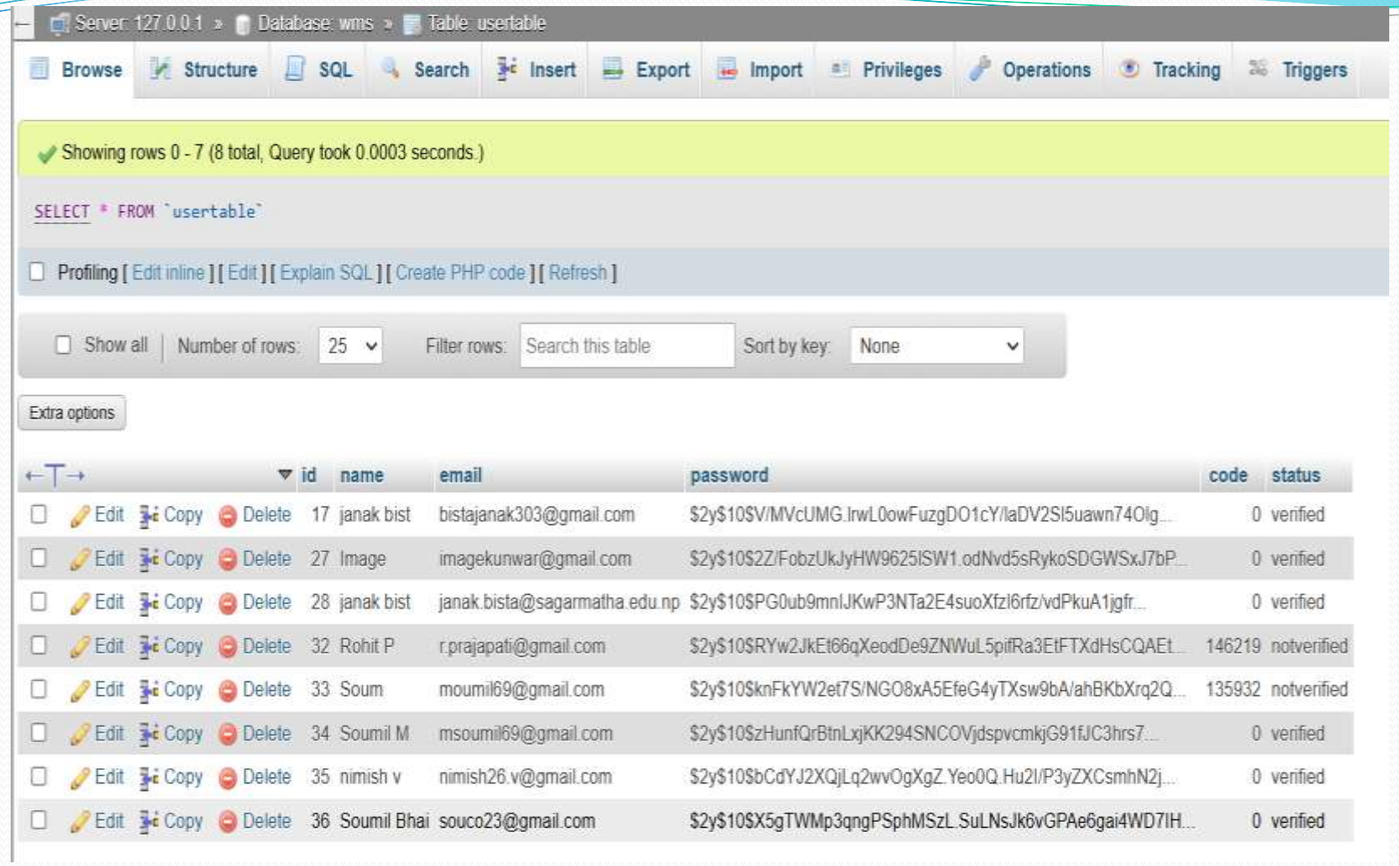











Server: 127.0.0.1 » Database: wms » Table: usertable
Browse
Structure
SQL
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Export
Import
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Showing rows 0 - 7 (8 total, Query took 0.0003 seconds.)
SELECT * FROM `usertable`
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