

TEAM-5

**WASTE
MANAGEMENT
SYSTEM**



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Introduction

The Waste Management System is a web-based application designed to optimize the waste collection process. It serves as a platform where users can easily book waste pickup requests, and administrators can efficiently assign and manage these requests. The system ensures a smooth interaction between users, administrators, and workers involved in waste collection.

Problem Statement

To Build an online web platform for efficient waste management where users can register, log in, and request waste collection services. The platform will allow users to schedule waste collection, track the status of their requests, and provide realtime notifications. Additionally, the system will include admin functionalities to manage waste collection and monitor the process.

Project Overview

The Waste Management System is a web-based application designed to optimize the waste collection process. It serves as a platform where users can easily book waste pickup requests, and administrators can efficiently assign and manage these requests. The system ensures a smooth interaction between users, administrators, and workers involved in waste collection.

Goal of the Project

The primary goal is to streamline waste collection processes for efficient management by:

- Enabling users to book waste pickups conveniently.
- Providing administrators with tools to assign and track tasks effectively.
- Keeping users updated on the status of their requests through email notifications.
- This system aims to minimize manual inefficiencies and enhance transparency in waste management operations.

Technologies

Frontend: HTML, CSS (mention the dark theme aesthetics).

Backend: Python with Django framework.

Database: MySQL.

Notification: SMTP for email updates.

Deployment: PythonAnyWhere

Feature: Google Sign-In

Modules

The system has two main modules: user functionalities and admin functionalities.

- For Users: They can book waste collection services, specify details like waste type and quantity, and receive email updates about their booking status.
- For Admins: They can view all requests, assign tasks to teams, and monitor progress through a dashboard.
- This ensures smooth coordination between users and service providers.



Features & Functions



- Booking System
- Task Assignment
- Admin Dashboard
- Email Notifications
- Status Tracking
- Cancellation Functionality
- Modify Booking
- Google Sign-In

Work flow

Booking

Task Assignment

Status Updates

Tracking

Cancellation

Challenges

- **Configuring Email Services:** Setting up secure authentication for sending notifications required the use of application-specific passwords.
- **Database Optimization:** Efficiently retrieving the latest status for each booking involved using Django's annotate and Subquery methods.
- **Deployment Issues:** Resolving dependency conflicts and configuring the hosting platform required careful debugging.

Conclusion

"In conclusion, the Waste Management System is a practical solution to improve waste collection processes. It simplifies booking for users, enables admins to manage tasks efficiently, and keeps users informed with real-time updates.

The project has been a great learning experience, enhancing my skills in Python, Django, and full-stack development.

Login

To exit full screen, press and hold Esc



Welcome Back

Please enter your details to sign in

Email

Password

Remember me

[Sign In](#)

Or Continue with



[Don't have an account? Sign Up](#)



Welcome Back

Please enter your details to sign in

Username

Enter your Username

Username is required.

Password

Enter your password

Password is required.

Remember me

Sign In

Or Continue with



Don't have an account? [Sign Up](#)



Welcome Back

Please enter your details to sign in

Invalid password

Username

Enter your Username

Password

Enter your password

Remember me

Sign In

Or Continue with



SignUp



Create Account

Please fill in the form to continue

User Name

Email

Password

Confirm Password

Sign Up



Create Account

Please fill in the form to continue

User Name

Enter your full name

Username is required.

Email

Enter your email

A valid email is required.

Password

Create password

Password is required.

Confirm Password

Confirm password

Sign Up

 Sign in with Google

Choose an account

to continue to [Waste Manager](#)



Rajarajeshwaran N
rajanataraj25@gmail.com



Rocky
nrajarajeshwaran12@gmail.com



[Use another account](#)

English (United States) ▾

[Help](#) [Privacy](#) [Terms](#)

Home

Wst Manager

Home Request Collection Profile Logout

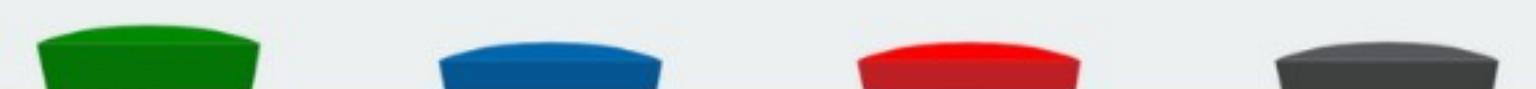
Welcome to our Waste Management System!!

Waste management or waste disposal includes the processes and actions required to manage waste from its inception to its final disposal. This includes the collection, transport, treatment, and disposal of waste, together with monitoring and regulation of the waste management process and waste-related laws, technologies, and economic mechanisms.

Request Collection Collection History

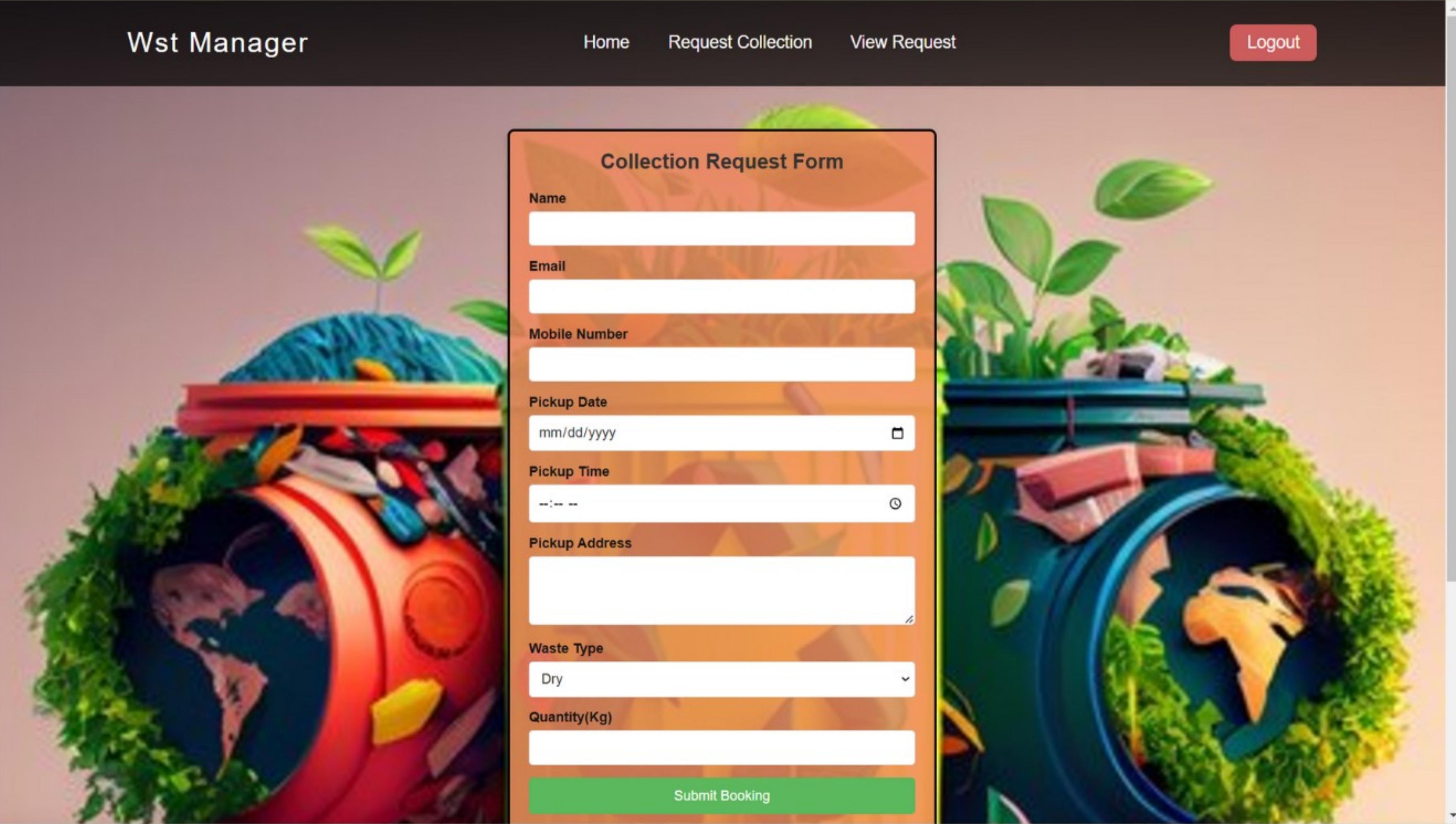
Guidelines
You're logged in successfully!!
1. Click on Request Collection, to schedule your waste pickup
2. Fill up all the required fields
3. Submit your waste collection request

Waste Segregation



127.0.0.1:8000/index/#

Waste Request Form



Wst Manager

Home Request Collection View Request Logout

Collection Request Form

Name

Email

Mobile Number

Pickup Date mm/dd/yyyy

Pickup Time

Pickup Address

Waste Type Dry

Quantity(Kg)

Collection Request Form

Name

Email

Mobile Number

Mobile number is required.

Pickup Date

Pickup date is required.

Pickup Time

Pickup time is required.

Pickup Address

Pickup address is required.

Waste Type

Quantity(Kg)

Valid quantity is required.

[Submit Booking](#)

Collection Request Form

Name

rajarajeshwaran

Email

rajanatara25@gmail.com

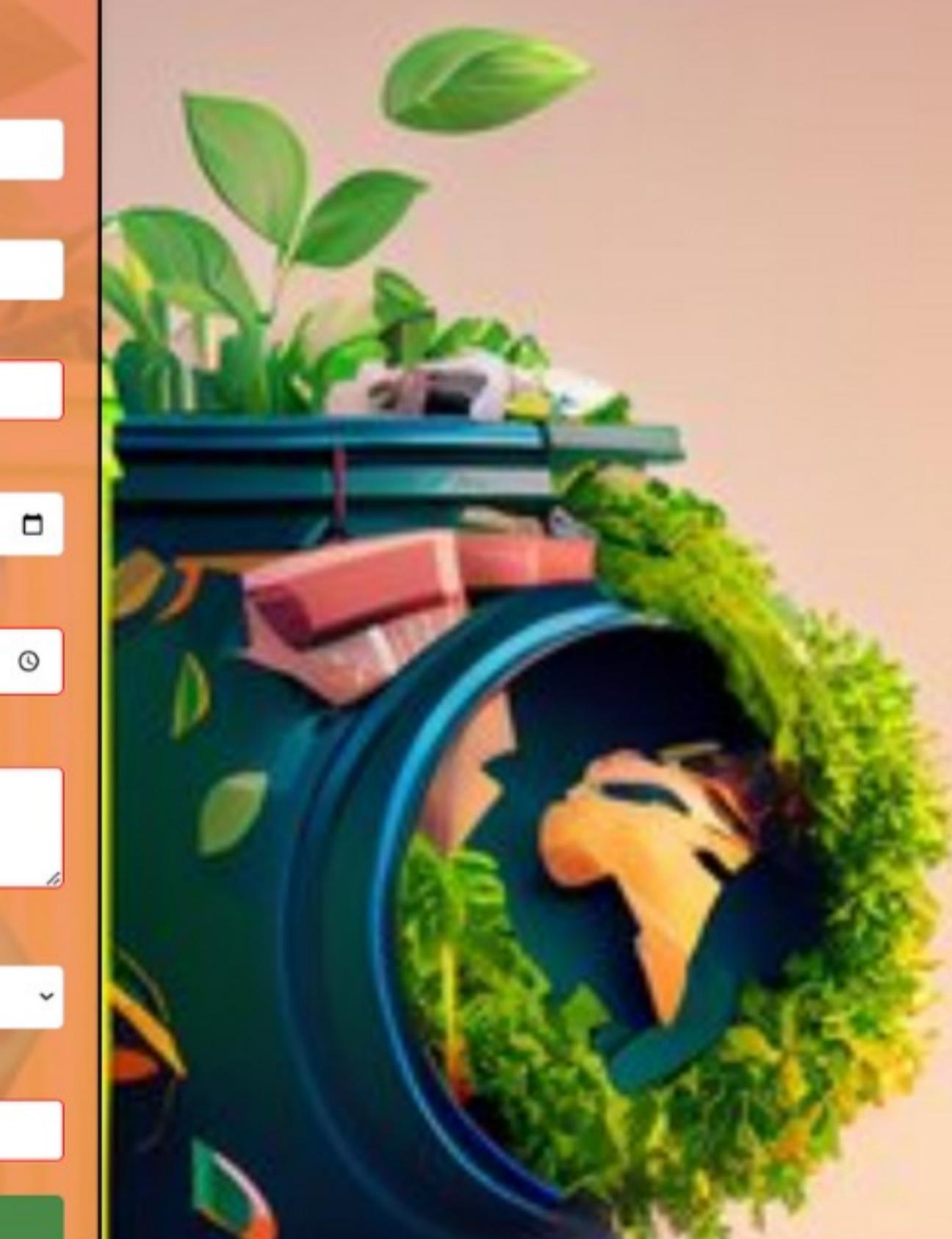
Mobile Number

2345

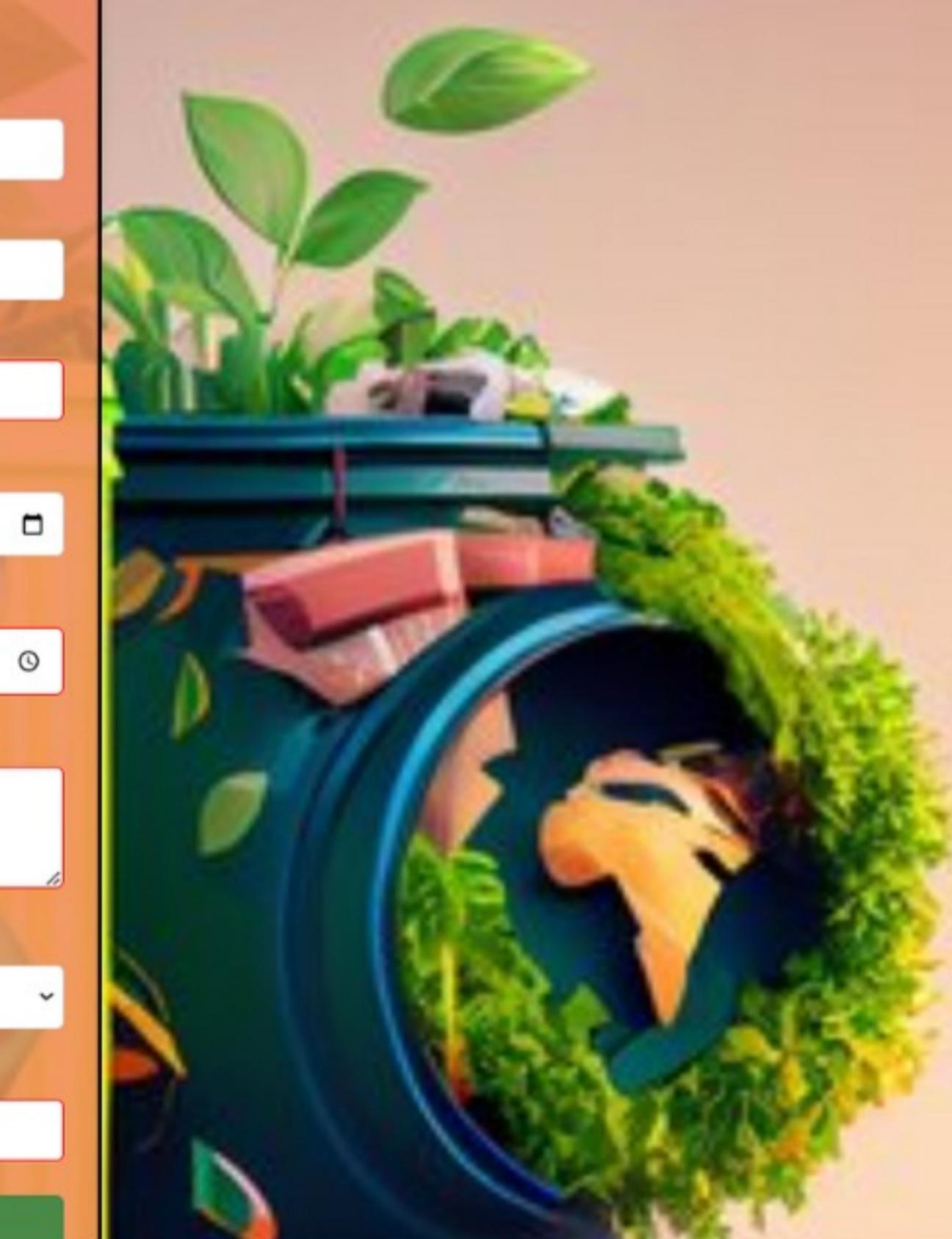
Enter a valid 10-digit mobile number.

Pickup Date

12/05/2024

**Pickup Time**

--:--

**Pickup Address**

Pickup address is required.

Waste Type

Dry

Quantity(Kg)

Valid quantity is required.

Submit Booking

Booking History

Your Bookings

Name	Email	Mobile	Scheduled Date	Scheduled Time	Address	Waste Type	Quantity	Status	Actions	
Raja	raja@gmail.com	7896541230	Nov. 28, 2024	10:52 a.m.	Mallur	dry	6	Assigned	<button>Cancel Booking</button>	<button>Modify Booking</button>
Raja	raja@gmail.com	7896541230	Nov. 26, 2024	7 p.m.	near bsnl, chennai	dry	25	Completed	<button>Cancel Booking</button>	<button>Modify Booking</button>
Raja	raja@gmail.com	1234567890	Nov. 28, 2024	7:30 p.m.	Home	wet	10	Pending	<button>Cancel Booking</button>	<button>Modify Booking</button>
Raja	raja@gmail.com	7894561230	Nov. 28, 2024	5 p.m.	My home	heavy	1	Pending	<button>Cancel Booking</button>	<button>Modify Booking</button>
Raja	raja@gmail.com	7894561230	Nov. 28, 2024	5 p.m.	My home	heavy	5	Pending	<button>Cancel Booking</button>	<button>Modify Booking</button>

Update Booking

Name	Email	Mobile	Scheduled Date
test	test@gmail.com	7485961235	Nov. 17, 2024

New Date
 calendar icon

New Time
 clock icon

New Waste Type

New Quantity

Update

Actions

Assigned Cancel Booking Modify Booking

Cancel Booking

Are you sure you want
to cancel this booking?

Booking for: **test**

Date: **Nov. 17, 2024**

Time: **8:54 p.m.**

[Yes, Cancel Booking](#)

[No, Go Back](#)

Admin Dashboard

Wst Manager

Users

Logout

Admin Dashboard

User Waste Collection Requests

Request ID	User	Waste Type	Quantity	Scheduled Date	Scheduled Time	Status	Last Updated	Actions
11	Raja	wet	10 kg	Nov. 28, 2024	7:30 p.m.	Assigned	27 Nov 2024 14:21	<button>Assign Task</button>
15	Raja	dry	6 kg	Nov. 28, 2024	10:52 a.m.	Assigned	20 Nov 2024 14:26	<button>Assign Task</button>
12	Test	dry	1 kg	Nov. 21, 2024	7:23 a.m.	In Progress	20 Nov 2024 14:08	<button>Assign Task</button>
14	test	dry	7 kg	Nov. 25, 2024	5:20 a.m.	Completed	20 Nov 2024 13:55	<button>Assign Task</button>
2	Rajarajeshwaran	heavy	1 kg	Nov. 8, 2024	8:57 p.m.	Completed	19 Nov 2024 14:11	<button>Assign Task</button>
3	user	wet	4 kg	Nov. 13, 2024	9:27 a.m.	Pending	18 Nov 2024 14:00	<button>Assign Task</button>

Task Assign

Assign Task

Request ID: **2**
User: **Rajarajeshwaran**
Waste Type: **heavy**
Quantity: **1 kg**
Scheduled Date: **Nov. 8, 2024**
Scheduled Time: **8:57 p.m.**

Status: **Pending**

Notes:

Worker: **Select Worker**

Assign Task

Back to Dashboard

Users

Users List

USERNAME	EMAIL	STATUS	ACTIONS
rajan	rajan@gmail.com	Active	<button>Deactivate</button>
Raja	raja@gmail.com	Active	<button>Deactivate</button>
user	user@gmail.com	Deactivated	<button>Deactivated</button>
test	test@gmail.com	Active	<button>Deactivate</button>
worker1	worker1@gmail.com	Active	<button>Deactivate</button>
king	king@gmail.com	Active	<button>Deactivate</button>
rocky		Active	<button>Deactivate</button>
rajarajeshwaran	rajanataraj25@gmail.com	Active	<button>Deactivate</button>

Email Updates

Booking Request Confirmation Inbox ×

nrajarajeshwaran12@gmail.com
to raja ▾

Dear Raja,

Your booking request has been received.

Details:

Waste Type: heavy

Quantity: 5kg

Scheduled Date: 2024-11-28

Time: 17:00

Thank you for using our service.

Booking Status Updated Inbox ×

 **nrajarajeshwaran12@gmail.com**
to raja ▾

Hello Raja,

Your booking with ID 15 has been updated.
The current status is: Assigned.

Thank you for choosing our service!

Best regards,
Waste Management Team

THANK YOU!

Website: [**Get Started**](#)