About Us

- **Raghav Agrawal | LinkedIn**
  My name is Raghav Agrawal, and I am a final-year IT student with extensive experience in Full Stack Web Development and Competitive Programming. I have developed dynamic projects using the MERN Stack and possess strong technical skills in React.js, Node.js, Tailwind CSS, and MongoDB. My expertise in Data Structures and Algorithms (DSA) has been honed through competitive programming, enabling me to write efficient and optimized code.
- **Sameer Arora | LinkedIn**
  My name is Sameer Arora and I am a final year IT student with experience in Full Stack Web Development and DSA. I have built dynamic projects using MERN Stack. I have a firm grasp of technical skills such as Next.js, React.js, Node.js, Flask, Tailwind CSS and MongoDB.

Brief Understanding Of the problem statement

Beaches across the world, including Mumbai's iconic shores, face severe pollution from unmanaged litter. Manual cleanup efforts are inconsistent, lack coordination, and offer little engagement for the broader community.

Proposed Solution

Our aim is to design a web app that is an intelligent digital platform that merges environmental sustainability with real-time community mobilization. Using **Beach-Installed Cameras**, AI detects litter and automatically launches cleanup drives via the platform.

Core Components:

1. Smart Beach Monitoring System

• Installation of surveillance cameras for real-time litter detection using AI.

• Enables behavioral monitoring and supports enforcement of anti-littering norms.

2. Inclusive Volunteer Ecosystem

• Local Volunteers earn rewards by participating in daily, weekly, or biweekly cleanup drives.

• Remote Contributors can upload blogs, vlogs, or social media content to inspire others and engagement based rewards.

3. Team Structure & Task Distribution

• **Team A (Main)**: Responsible for task execution, Incomplete performance leads to point deduction.

• **Team B (Backup):** Ready to step in, earning extra points while Team A loses their stake.

A poll would be conducted for all the drives, first 10 members of which will get to participate in **Team A** and the remaining registrations would directly participate in **Team B (Backup Team),** and a confirmation message will be sent to **Team A,** one day prior to drive, if Team A fails

Task categories:

- **Task 1**: Beach monitoring and litter control.
- **Task 2**: Physical cleanup execution.
- **Task 3**: Media & documentation for social impact.

4. Gamification & Rewards System

• Points earned for participation, referrals, content uploads, and prompt response.

- Redeemable through lucky draws or for government-linked incentives like:
- Discounts on electricity, metro passes, water bills, and local taxes.
- Referral Program modeled after Paytm/Blinkit for volunteer expansion.
- Badges, levels, and a “Green Hero of the Month” award for top performers.

5. AI Chatbot Integration

- A built-in AI-powered chatbot assists volunteers in real time.

- **Key features:**

- Allows uploading images/data via chat.

- Performs AI-based analysis on trash type and quantity.

- Generates summarized reports and social media story posts (e.g., “Your team collected 12.6 kg of waste today! 🎉”).

- Enhances automation, transparency, and user interaction.

6. Student Involvement & Experiential Learning

- Cleanup drives integrated into school/college field trips.

- Hands-on learning under team supervision promotes environmental education.

7. Donation & Recycling-Driven Impact

- Integrated payment gateway for public donations to NGOs.

- Display of live needs (e.g., gloves, sacks, refreshments).

- Revenue from recyclable waste is donated to local NGOs and orphanages.