



सत्यमेव जयते

Education Department
Government of Gujarat



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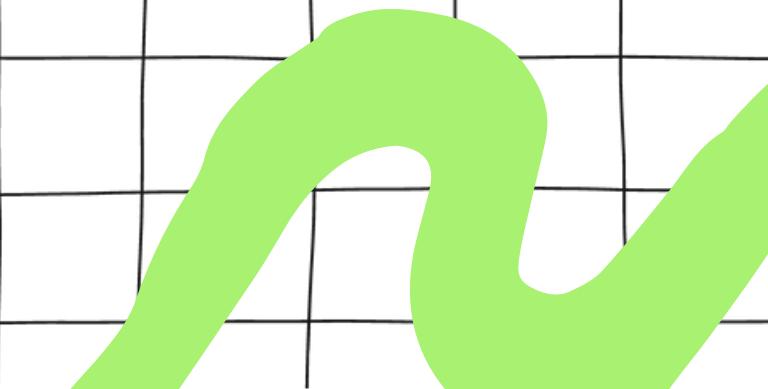
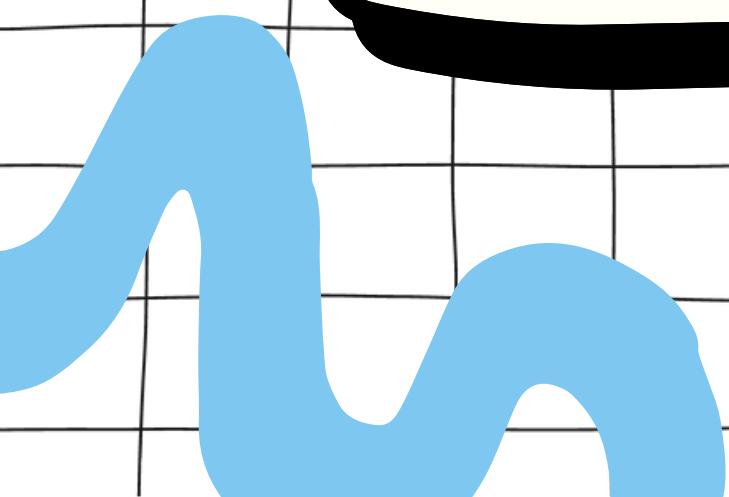
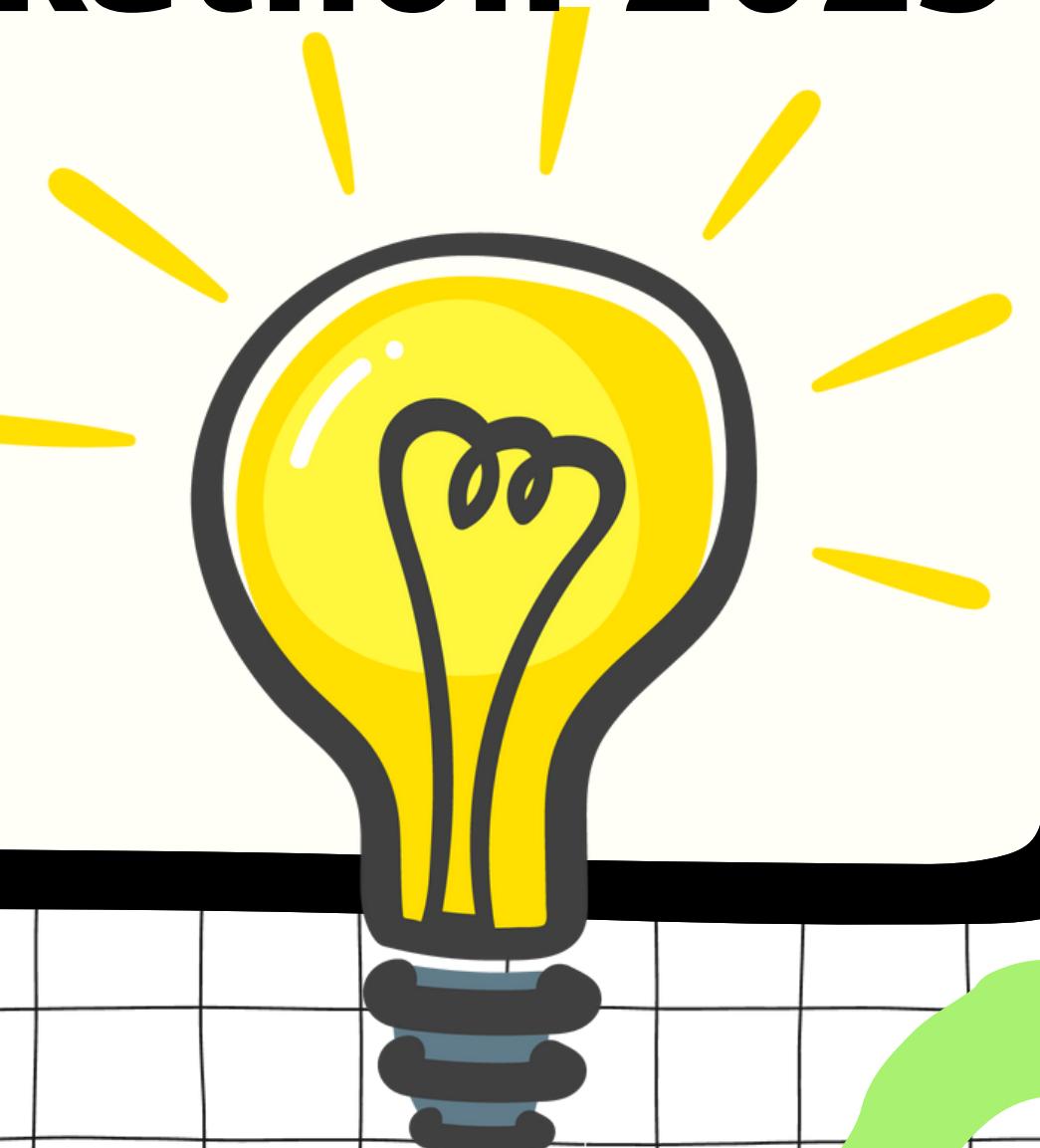
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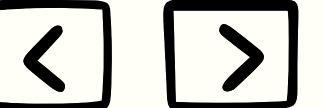
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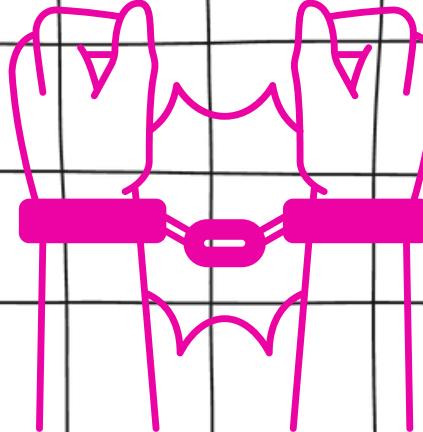
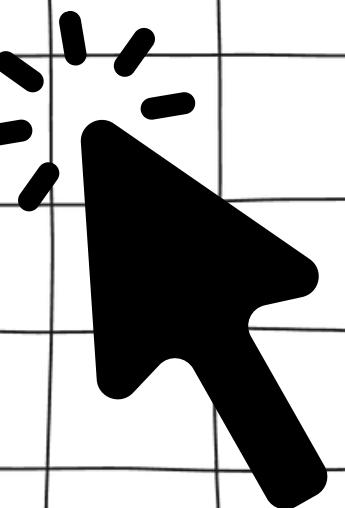
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Education Department Gujarat



Basic Details



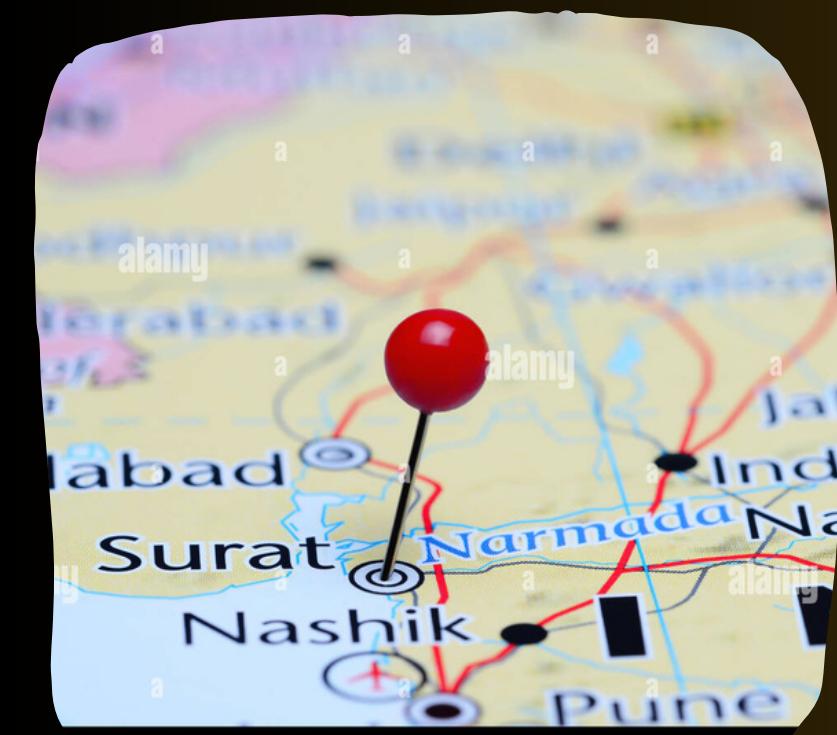
- Name of the GOG Department/PSU/Municipal Corporation/DDO: **Surat Municipal Corporation**
- Problem ID: **PSO33004**
- Problem Statement Title: **Illegal Hoarding Identification Of Surat City**
- Team Name: **Deepanshu Yadav**
- Team Leader Name: **Synergy**
- Sector: **Urban Governance**
- Institute Name: **GH Raisoni College Of Engineering, Nagpur**





Problem Statement?

The city of Surat is grappling with an issue of unauthorized hoardings, often installed without proper permits, causing visual clutter in the urban landscape. Given the extensive city area, identifying these illegal hoardings is a formidable challenge. To maintain the aesthetics of the city and ensure regulatory compliance, there is a pressing need for an innovative technological solution that enables Surat Municipal Corporation and its citizens to efficiently detect, manage, and enhance the city's visual environment, all while accommodating the inherent limitations of GPS accuracy.





Idea/Approach:



• Geo-Tagging System:

Creating a centralized database of authorized hoardings with precise latitude and longitude coordinates for each location and Collaborating with Surat Municipal Corporation (SMC) to collect and maintain this data.

• App Development:

Designing a user-friendly app with a clear interface for hoarding registration.

Implementing a verification process for submitted hoarding data.

• Image Analysis Technique:

Utilizing AI-based image analysis to differentiate between authorized and unauthorized hoarding.

Training the system with a dataset of authorized hoarding images.

• Cloud-Based Centralized Database:

Storing hoarding data in a secure, cloud-based database for scalability and accessibility. Cloud technology allows for easy updates and data management.

• Mobile App with Augmented Reality:

Enhancing the mobile app with AR capabilities. Users can scan a hoarding with their smartphone to instantly verify its legality and access additional information.



👁 Showstoppers:

• Data Accuracy And Validation:

Ensuring the accuracy of authorized hoarding data provided to the user. Validation checks to avoid fake or manipulated entries..

• Privacy and Security Concerns:

Implementing strong security measures to protect user data and hoarding information.

• Regulatory and Legal Compliance:

Adhering to local laws and regulations concerning hoarding permissions and data usage.



Dependencies:

• Database and Storage Infrastructure:

Reliable database to store hoarding information and image data..

• Mobile App Development:

Development of user-friendly mobile application for both citizens and SMC employees.

• Data Connectivity and Accuracy:

Reliable network connectivity for mobile GPS. Strategies to handle inaccurate mobile GPS data.



Technology Stack:



USE CASES

User Registration And Hoarding Entry

- User creates an account and registers hoarding details.
- Information includes hoarding location, dimensions, images, and authorization status.

Geo-Tagging And Coordinate Management

- Storing authorized hoarding coordinates accurately.
- Linking hoarding information to precise lat-long coordinates for verification

Image Analysis Techniques

- Leveraging image recognition to differentiate between authorized and unauthorized hoardings.
- Image processing to identify hoarding characteristics and cross-check with the authorized database.

Mobile Interface for SMC Employee And Citizens

- Accessible App interface for SMC employees and citizens.
- Allows users to verify hoarding authorization using mobile GPS.

Report Suspected Illegal Hoarding (Actor: Citizens)

- Citizens can report hoardings they suspect to be illegal via the mobile app, providing photos and location details.

Alerts And Notifications:

- Automatic alerts for unauthorized hoarding identification.
- Notifying the concerned authority for prompt action.

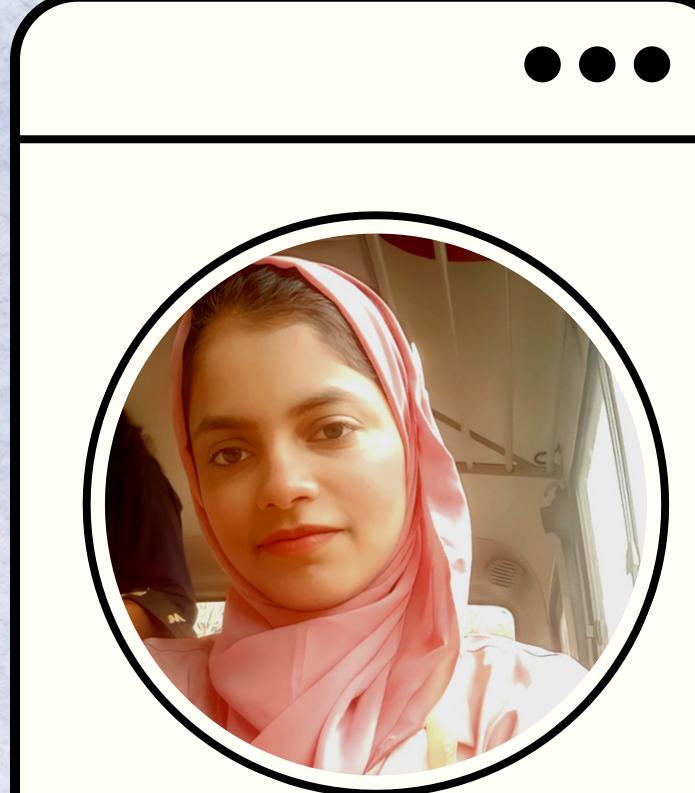
The Team



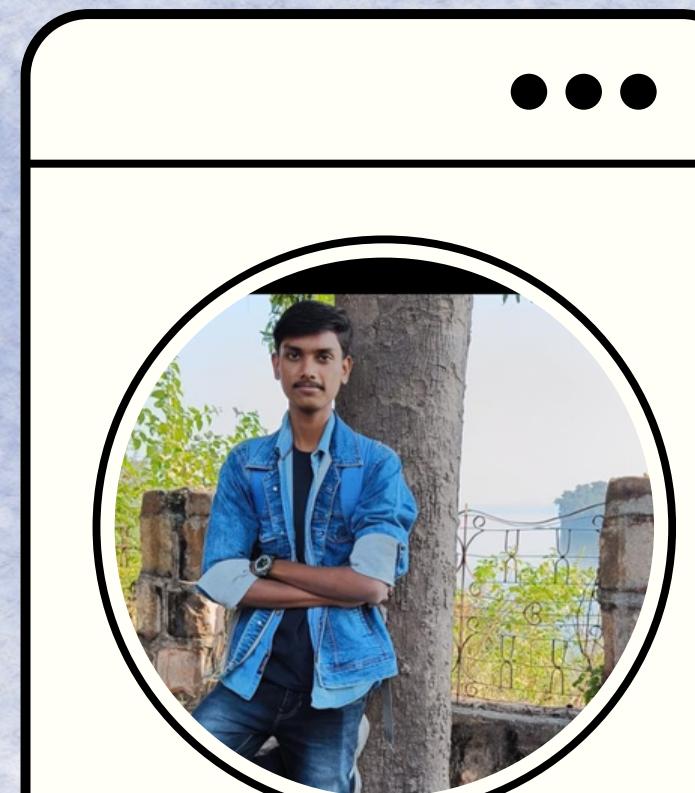
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Team Leader



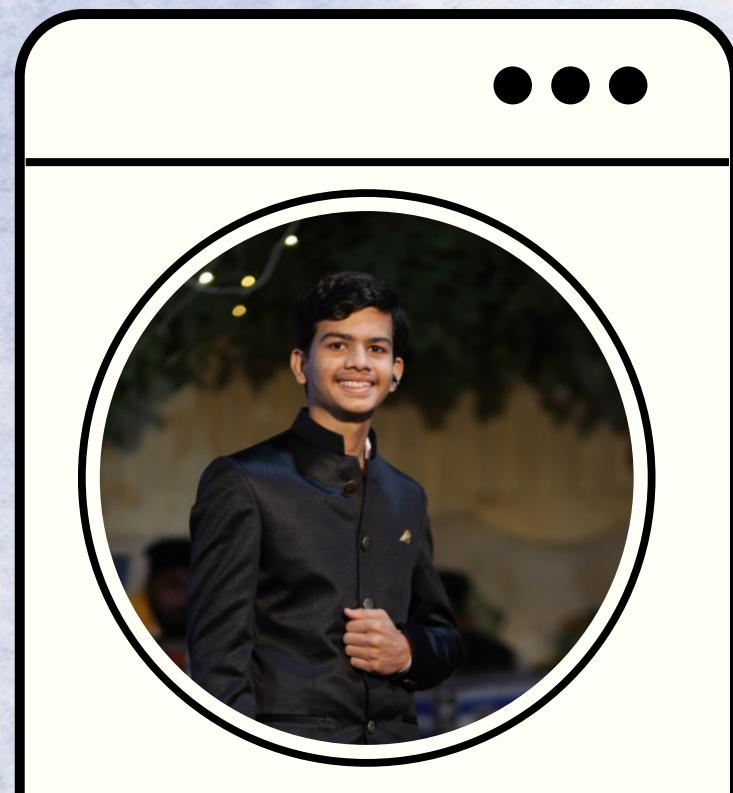
Toshit Rewatkar
Data Analyst



Fatima Zaki
Tech Wizard



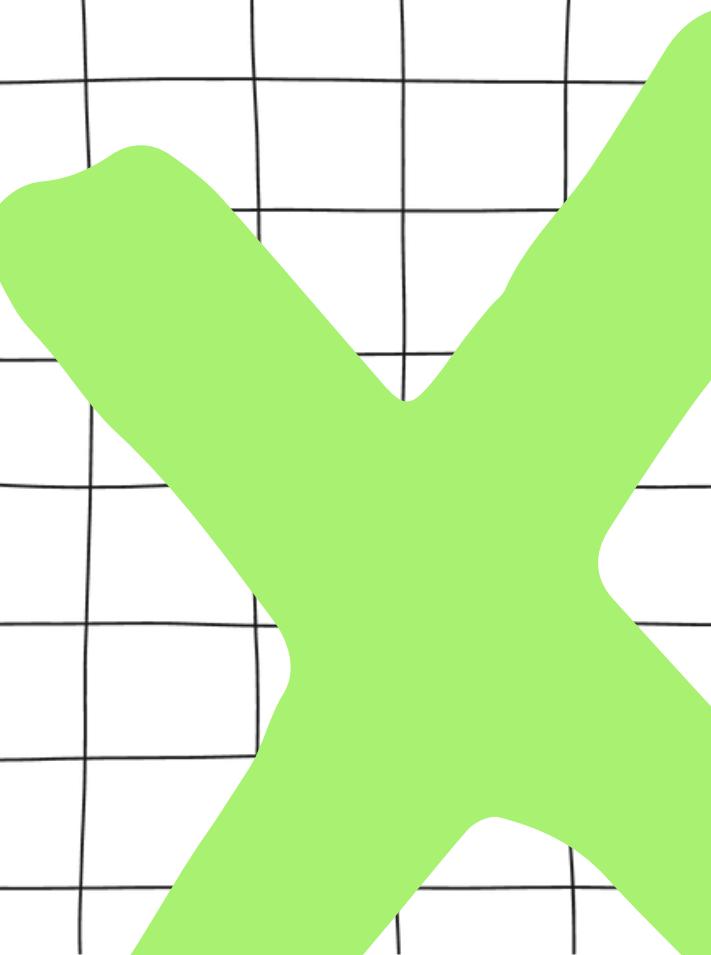
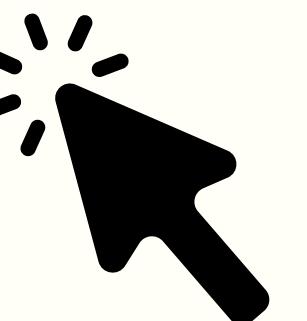
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*Web Developer & Front-
End Specialist*



Daksh Nayak
Project manager

WHERE TECHNOLOGY MEETS
VISION: TRANSFORMING
SURAT, ONE HOARDING AT A
TIME

Thank you!



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