Tools and Frameworks:

1. Android Studio.
2. Google Maps API.
3. AndroidX artifacts.
4. Firebase realtime database and authentications.
5. MapBox API.
6. TensorFlow Lite.
7. PhilJay Graph's API.

NP Devs

DroidRush (Avishkar)-2019

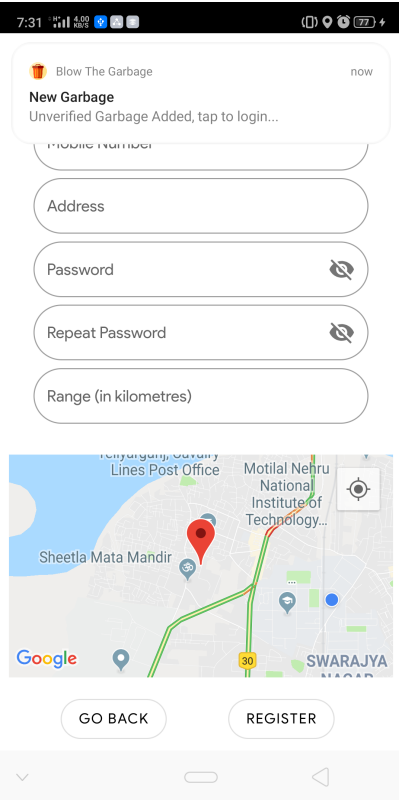"Blow The Garbage" (Project Presentation)

Developers-

1. Ashutosh Chitranshi (Leader)
2. Nishchal Siddharth Pandey

What's The Problem

- 1. Garbage is not cleaned on regular basis in all areas.

- 2. Cleaners are unable to get the exact location of garbage and optimized route to reach there.

- 3. No platform for common people to contribute towards cleaning city.

- 4. Single person (Admin) is also not available to check that uploaded image is of garbage or not.
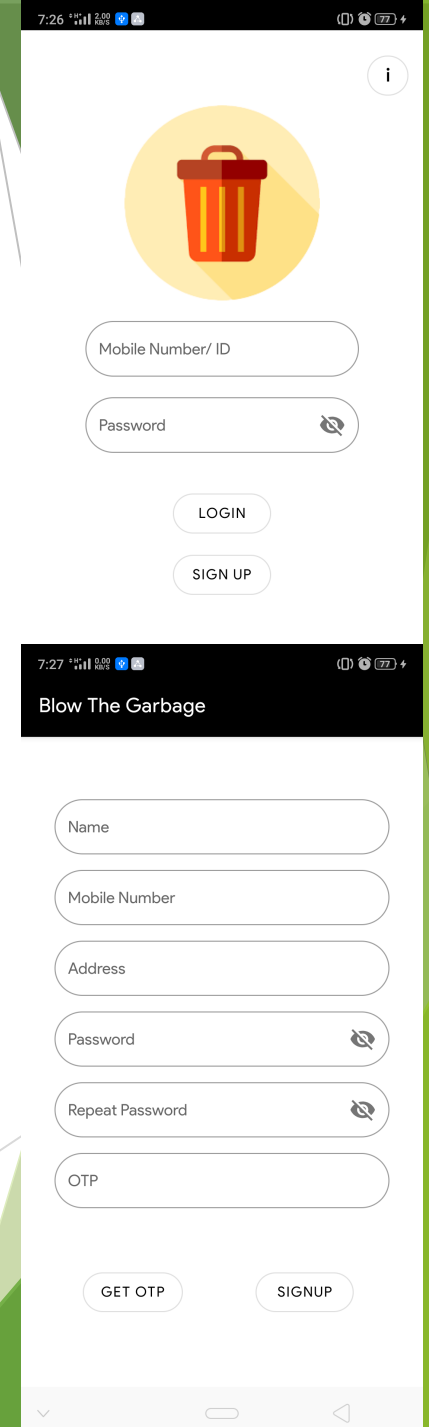
Login and Register

1. All the users are registered by giving their details (their mobile numbers are verified by sending OTP) and password (Password is stored using SHA-256 hash and cannot be retrieved even by developers).

2. Hidden Login Combination for Admin where admin personally registers cleaner for different areas.

3. Persistent Login.

Auto Verification using ML

- If any user is present at the location of garbage then, he/she can directly able to click an image of garbage which is verified using ML.

- If it get verified it is directly marked at present location, otherwise user can later upload an clicked image.
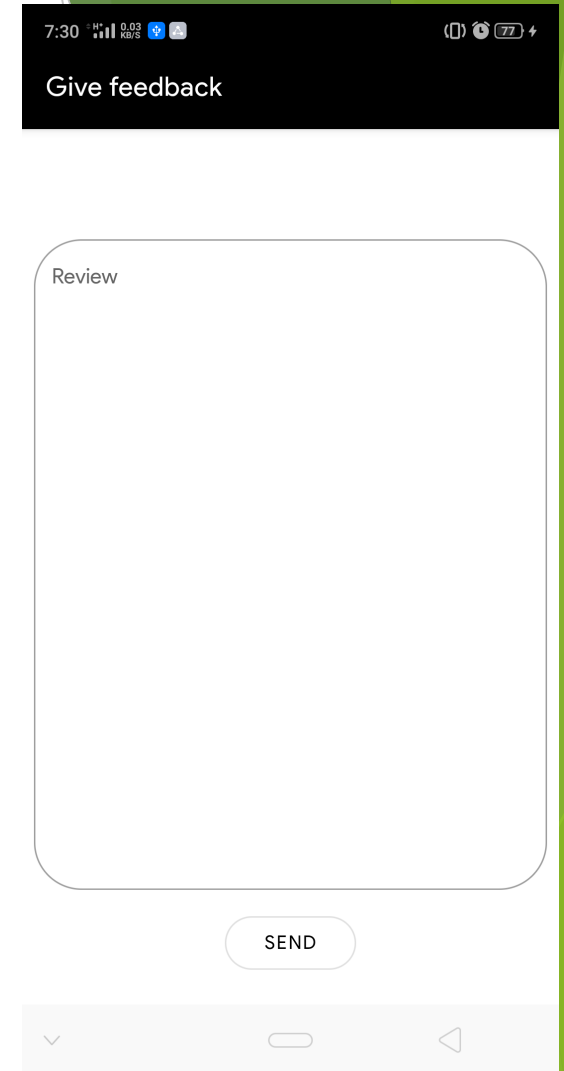
- Garbage is marked at current location.
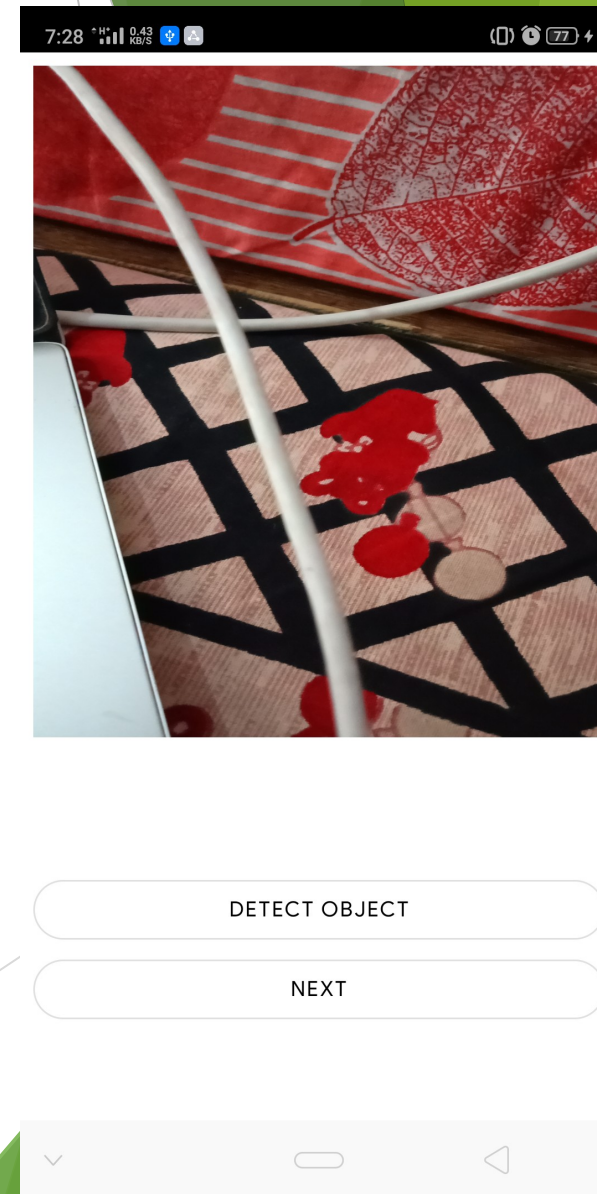
Upload Garbage Image

▶ If garbage image is not verified or we or not at the location of garbage but we have image of it, then it can be uploaded, where Admin personally verify it as an image of garbage or not.

▶ He gets to mark the garbage location on map, also he can able to upvote/ down vote uploaded garbage.

▶ Here, we also have facility to mark garbage as organic/In-organic, severe/Non-Severe and description of garbage.
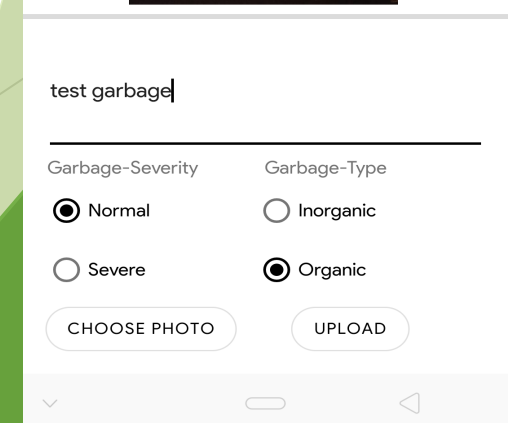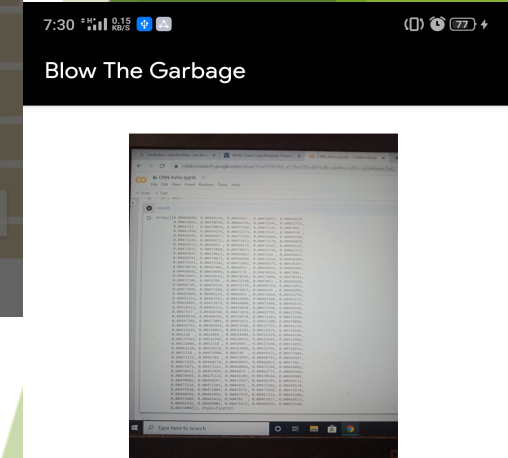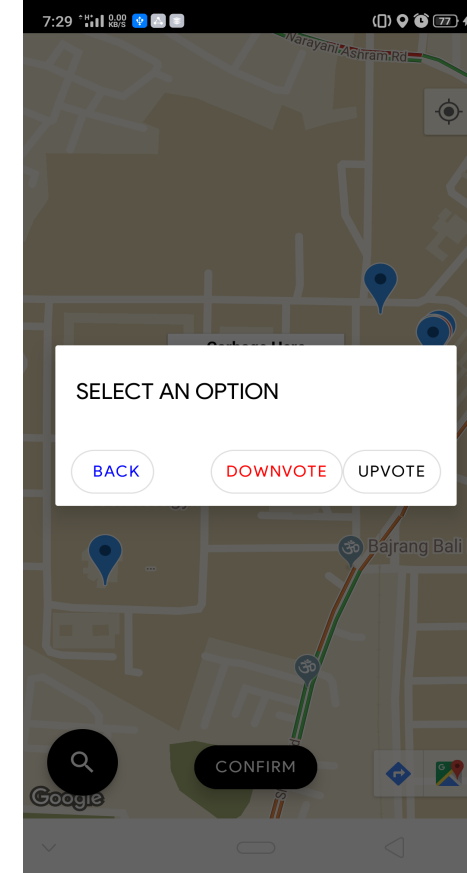
Feedback/ Review

► Users can give anonyms feedback or review towards the success of app, whether they are comfortable with its usage, real life impact or any such thing.

Give feedback

Review

SEND

Complaint against cleaners

- If any user feels that a particular area is not cleaned, even after reporting then a complaint with description and marking that particular place on map is supported, which is visible to Admin so that further actions can be made accordingly.

Admin Verification

▶ Admin gets notified every time when any garbage is added which needs verification

▶ Admin have the power to approve and disapprove any uploaded garbage image.

▶ Also able to read description, severity, organic/ In – organic nature of garbage.
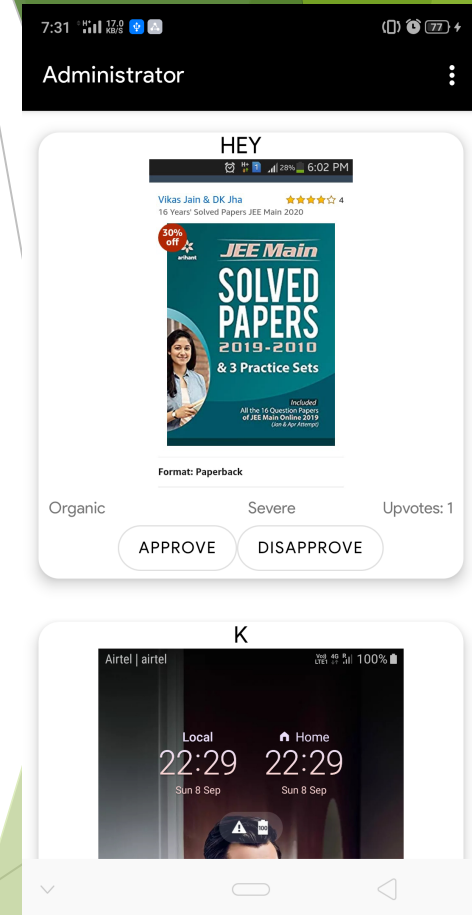
Cleaner Complaints and Feedback/ Review

- Admin is able to look on all cleaner's complaint and also area is marked on map in circle against where a particular complaint is made.

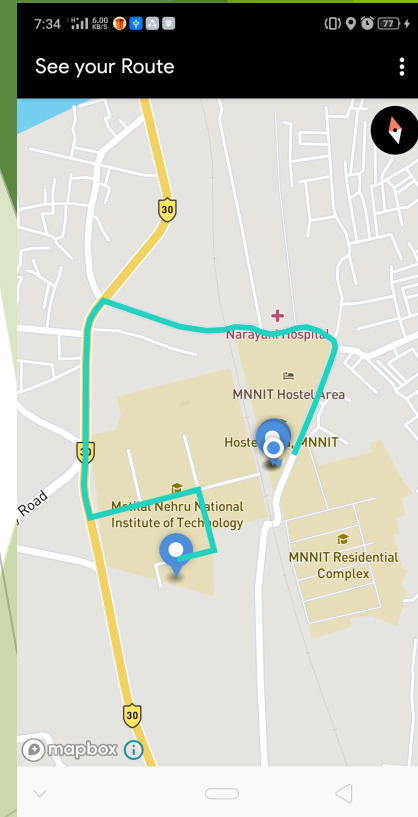- He also read anonyms feedback and review against the success of app.
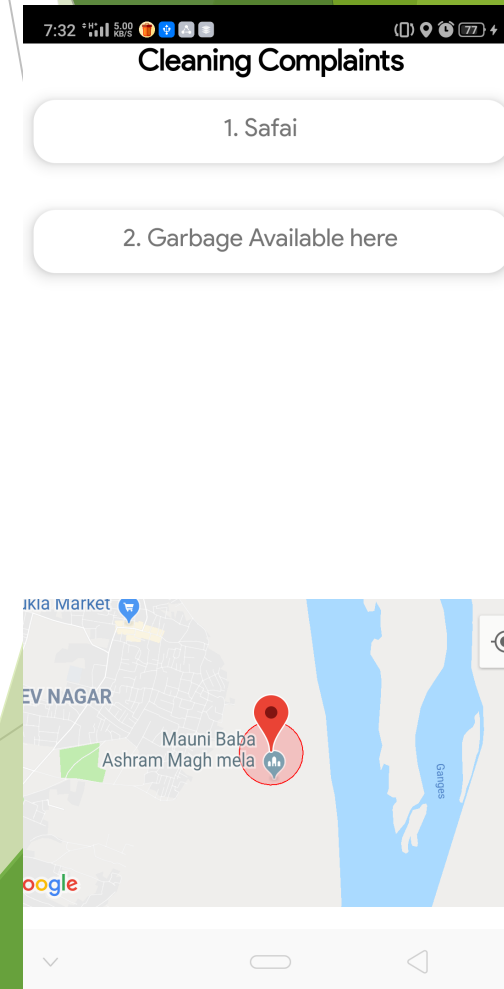
Graphs

- Pie chart for ratio of Organic/ Inorganic garbage and Severity of garbage is drawn.

- Histogram is drawn for total total count of garbage in one day.
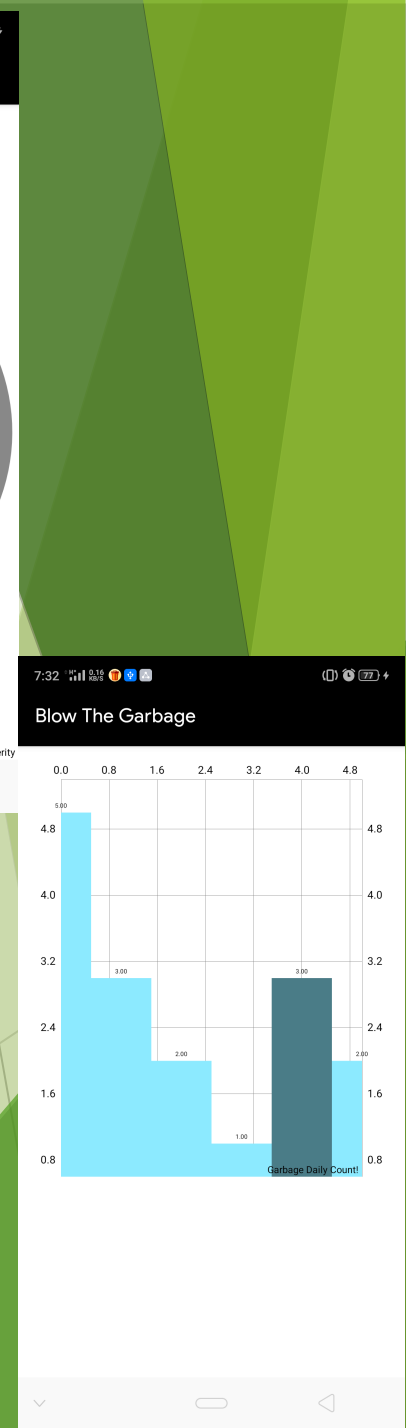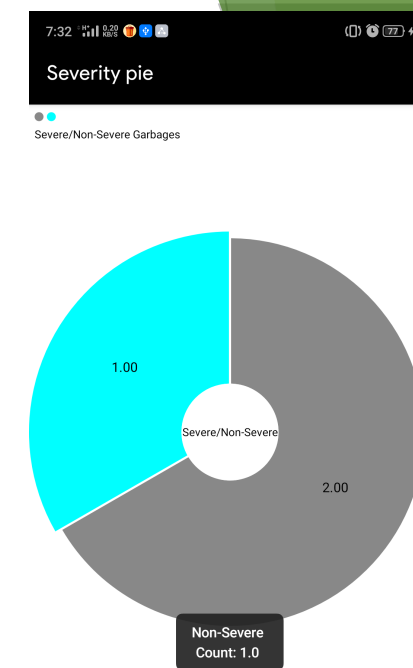
Cleaner

- Any particular cleaner get to see the marked position of garbage and in his area and these areas are connected with a poly line on map.

- After cleaning he can remove that also.

Thank You!!