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BADERIA GLOBAL THE BEST Institute of Engineering & Management

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Profile Overview

- **Theme** – GREEN TECH

  (Designing sustainable solutions to protect and heal our planet.)

- **Problem Statement Title**- Solid and E-Waste management and recycling innovations.

- **Team Name** – THE CRYPTIC CREW

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E-Bin App

Solution Overview: **The "E-Bin App" simplifies e-waste recycling with geo-location, pickup scheduling, and rewards, promoting convenient and sustainable disposal.**

Problem-Solving**: This app tackles e-waste issues through seamless disposal, advanced recycling , and rewards.**

Innovation : **Convenient Pickup Scheduling, Connecting Citizens to Recycling Opportunities , Organized E-waste & Solid Waste Disposal.**

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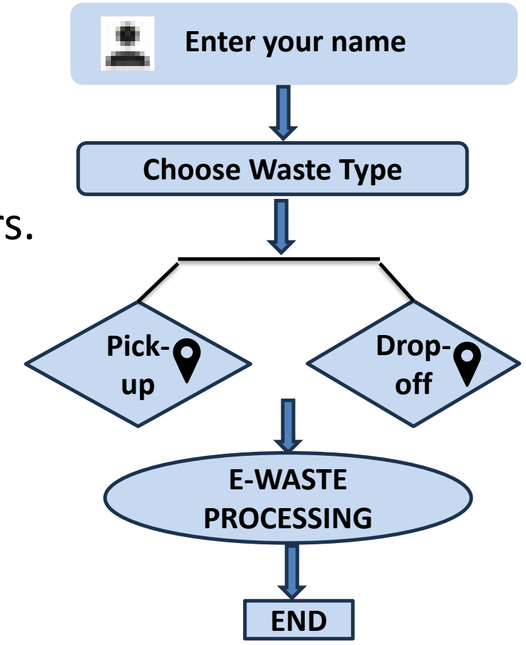
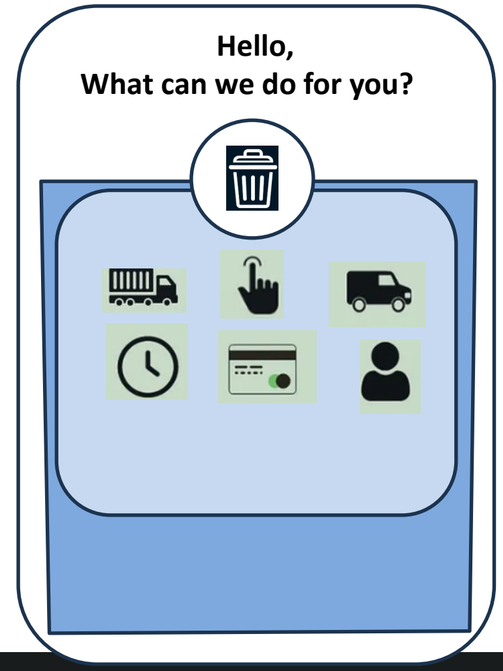
Technical Approach

Technologies Used:	Programming Languages:	Frameworks:	APIs:	Database :
	Python,Javascrips,etc.	React native or Flutter..	Google Maps APIs	Firebase, MySQL,etc.

Process Flow:

- User opens the app and **Registers.**
- Choose **waste type** and category.
- AI Waste identification.
- **Schedule pickup** or locate drop- off centers.
- Real time tracking and **Waste processing.**
- Impact metrics.
- Rewards and engagement.
- End.





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FEASIBILITY AND VIABILITY

Feasibility

- ❑ **Technical Feasibility:** Relies on readily available technology.
- ❑ **Operational Feasibility:** Tackles waste issues with engaging gamification features.
- ❑ **Financial Feasibility:** Cost effective.
- ❑ **Scalability:** Designed for expansion to large system and cities.

Challenges & Risks

Low Adoption Rates

Technical Issues

Partnership Challenges

$ **Financial Constraints**

Stakeholder Resistance

Environmental Risks

Mitigation Strategies

- ❑ **Launch awareness campaigns**
- ❑ **Provide technical support , release regular update**
- ❑ **Present clear value propositions to recyclers, municipalities**
- ❑ **Seek sponsorships, stabilizing fund**
- ❑ **Enforce strict protocols**

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IMPACT AND BENEFITS OF E-BIN APP...

Target Audience Impact:

- Empowering citizens to **recycle** effectively.
- Streamlining **waste collection** for municipalities and recyclers.
- Building partnerships with NGOs for **sustainable** practices.

Key Benefits:

- **Social**: Promotes community participation and awareness.
- **Economic**: Generates revenue through recycled materials and cost-efficient waste management.
- **Environmental**: Reduces landfill waste and boosts eco-friendly behavior.

Future Scalability:

- Potential for IoT integration and **AI-based sorting**.
- Expansion to more cities with **global recycler collaboration**.

REFERENCES

1.Official and Government Resources:

1. https://globalewaste.org/ - E-waste-related data.
2. https://www.india.gov.in/ -Local regulations and environmental guidelines.
3. https://gauvinsgreen.com/blog/e-waste-collection-sorting-and-recycle/–Showcases app designs for waste collection and disposal.

2.Educational and Research Databases:

1. https://www.scholar.google.com/- Scholarly articles on your topic.
2. https://pubmed.ncbi.nlm.nih.gov/-Science and technology papers.
3. https://www.researchgate.net/ - Publications by academic professionals.

3.Environmental Organizations and Initiatives:

1. https://www.greenpeace.com/- Sustainability campaigns.
2. https://ourworldindata.org/- Infographics and detailed reports.

4.Technical and Design Websites:

1. https://www.flaticon.com/- Free icons for your presentation.
2. https://www.unsplash.com/- Free images for non-commercial use.