THEME – GREEN TECH

- PROBLEM STATEMENT
- G2. Solid and E-waste management and recycling innovations: Efficient systems for managing and repurposing water, minimizing environmental impact
- TEAM NAME – CODINGBROTHERS

WHAT IS GREEN TECH?

- Green tech–or green technology–is an umbrella term that refers to the use of science and technology to reduce human impact on the natural environment.
- It spans a wide range of fields including energy, atmospheric science, agriculture, materials science, and hydrology.

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COLLECTMYSCRAP

- **PLATFORM FOR SCRAP DEALERS/PUBLIC**
  - Solution Overview:
    Our platform bridges the gap between local scrap dealers and households or businesses with recyclable waste. Users can schedule pickups for their items and nearby registered collectors are notified to collect the material from them.
  - Problem Solving:
    Currently, many people don't know how and where to correctly dispose the recyclable waste which leads to landfill overflow and missed to get recycled. Scrap collectors, on the other hand, struggles to find consistent source of material. Our platform solves both problems by providing easy to use interface where people can list their items for collection, while scrap collectors receive notifications based on their real time location and preference
  - Innovation:
    - Options for donation or exchange of scrap for rewards and money
    - Integrated scrap value estimation
    - Support for bulk and event based pickups
    - Direct public-to-collector connections

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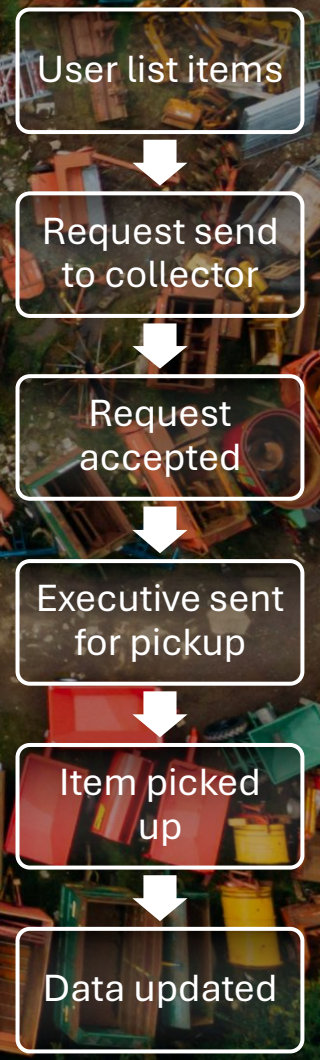
TECHNICAL APPROACH

- Technologies used:
  - Frontend: HTML, CSS
  - Logic: C++
- Methodology:

1) Wireframe UI with HTML and CSS to build basic web pages like homepage, login page etc.
2) Simulate Backend logic with C++
3) Features like Form submission and Navigations /Location sharing



Process Flow:



FEASIBILITY AND VIABILITY

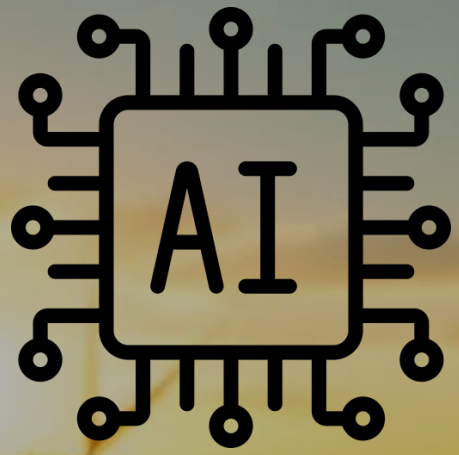
- Feasibility:
  - The platform can start as a basic web application using HTML and CSS for the front end
  - Core logic can be implemented using C++
  - Once the frontend is ready, backend development can be added using common tools like node.js
  - Practically, the idea is viable in areas with informal recycling systems, offering value to people and scrap dealer both
- Challenges & Risks:
  - User trust & safety – Verifying collectors to ensure safety
  - Adoption by Collectors - some collectors may not have access to technology
  - Route optimization
- Mitigation Strategies:
  - Add a manual verification at verified stations
  - Offer multilanguage support
  - Gradually increase and improve road network

IMPACT AND BENEFITS

- Target Audience Impact:
  - Scrap collectors: Gain more job opportunity, better income and organized schedule
  - Public/Households: Easy to dispose waste from home – convenient, eco-friendly
  - Environment: More recyclable material collected means less landfill, less pollution and cleaner streets

- Key Benefits:
  - Social: encourage people to recycle waste rather than disposing it away
  - Economic: Collectors earn more, new jobs evolve
  - Environmental: Promote circular economy, reduce illegal dumping
- Long term value:
  - Scalability: can start in one area and then stretch to several cities and states
  - Future potential: With the use Ai we can add smart bins to the street and real time route mapping

REFERENCES



Project summary:

1) A platform to connect the public with local scrap collectors
2) Promotes recycling, boosting collector income, and reduces landfill waste.
3) Future-ready with potential for AI and smart bin integration

Links:

- https://www.investopedia.com/terms/g/green_tech.asp
- https://www.ibm.com/think/topics/green-technology