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TITLE PAGE

- **Problem Statement ID –1592**
- **Problem Statement Title - Student Innovation**
- **Theme- Clean &Green Technology**
- **PS Category- Software**
- **Team ID- 2116**
- **Team Name - BSPAMS**

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CIRCULARHUB

Empowering Communities Through Sustainable Waste Management

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DESCRIPTION :-CircularHub is an online platform that transforms waste into valuable resources by connecting users who want to recycle, repurpose, or donate waste materials.

- **Addressing the Problem:-**Reduces waste by reusing materials that would otherwise end up in landfills

- **Innovation & Uniqueness:-**Merges a marketplace for waste with community-driven sanitation reporting, boosting environmental and community health

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TECHNICAL APPROACH

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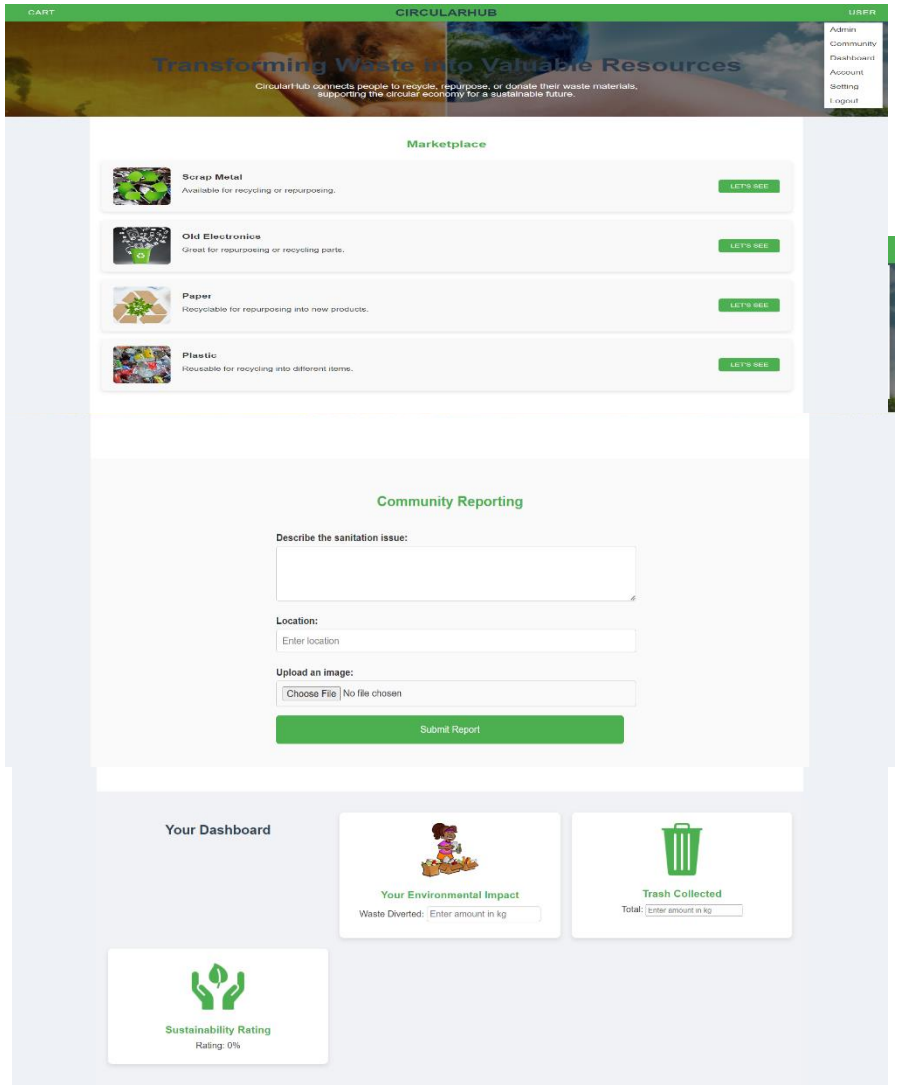
Technologies Used

- Programming Languages: Python, JavaScript
- Frameworks: Django, React
- Database: MySQL
- APIs: Google Maps for geotagging

Methodology

- User-friendly interface for listing and browsing waste materials.
- Geo-tagging feature for reporting sanitation issues.
- Data analytics dashboard for tracking user impact.



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FEASIBILITY AND VIABILITY

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Feasibility:

- - Technically feasible with existing technologies and frameworks.
- - Scalable for expansion to new regions and waste types.

Challenges:

- - User adoption in regions with low internet penetration.
- - Ensuring data security and privacy.

Strategies:

- - User education and awareness campaigns.
- - Robust encryption and secure login mechanisms.

IMPACT AND BENEFITS

Impact on Target Audience:

- - Empower communities to manage waste sustainably.
- - Reduces environmental footprint at both individual and community levels.

Benefits:

- - Social: Enhances community cleanliness and public health.
- - Economic: Reduces waste disposal costs and creates opportunities for new businesses.
- - Environmental: Significant reduction in landfill waste and promotion of recycling.

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RESEARCH AND REFERENCES

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Research

- - Studies on the circular economy and waste management.
- - Research on community-driven environmental initiatives.
- - Technical references for the technologies and APIs used.

References

- https://www.ibm.com/products/environmental-intelligence-suite
- https://www.google.com/maps
- http://lsgkerala.gov.in/en/waste-management