PBL

SMART LAUNDRY APP

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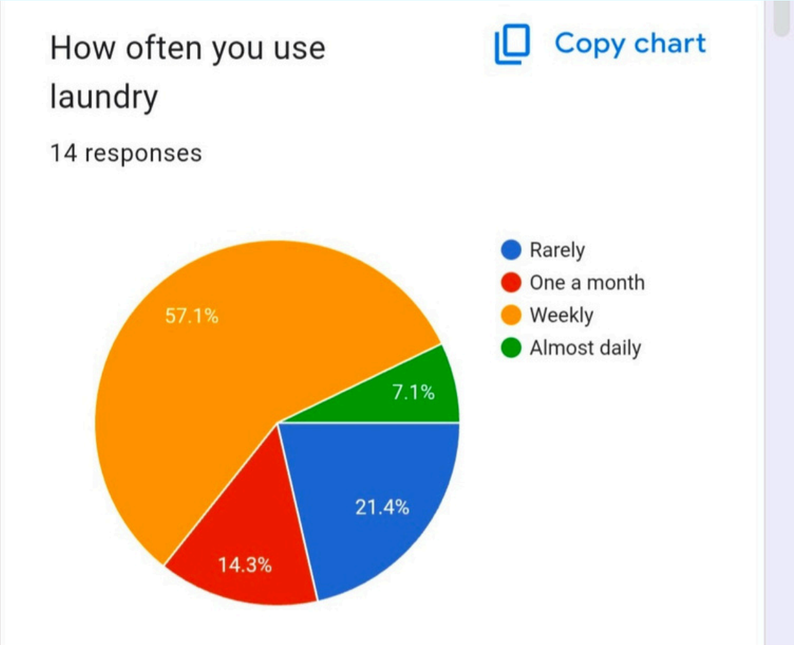
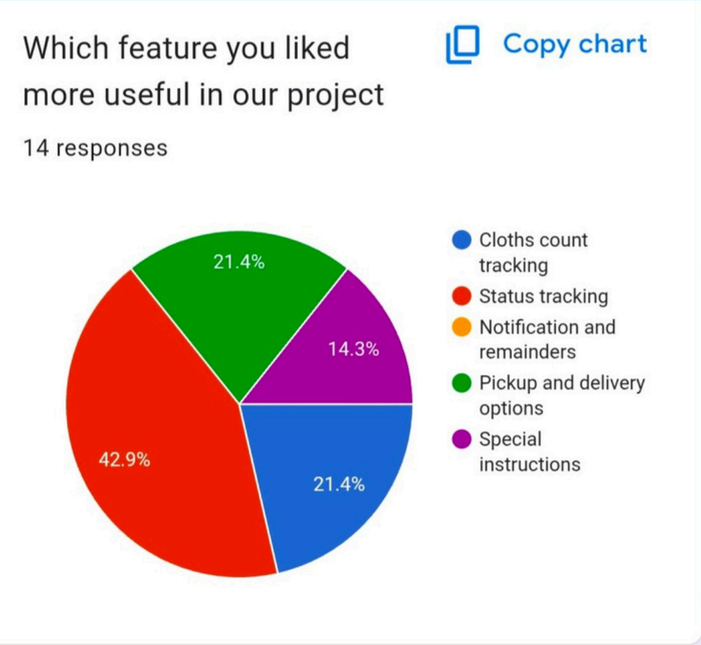
PROBLEM STATEMENT

Title: Smart Laundry App for Reliable Tracking and Customer Transparency

Customers frequently face issues with traditional laundry services, including missing clothes, delayed deliveries, and lack of real-time updates. Existing services often fail to provide transparency, proper communication, and assurance of clothing safety. A Smart Laundry App can address these challenges by offering features such as status tracking, digital receipts, reminders, and alerts for missing clothes, ensuring convenience, trust, and customer satisfaction while improving the overall laundry service experience.

PRIMARY RESEARCH





What is the biggest problem you face with laundry services

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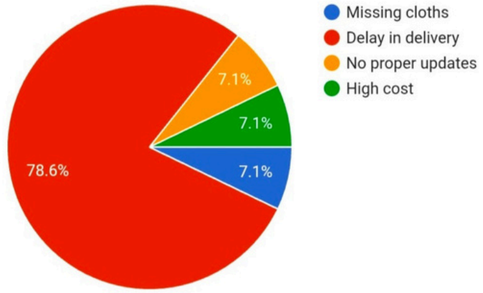
14 responses



how important is status tracking in laundry app

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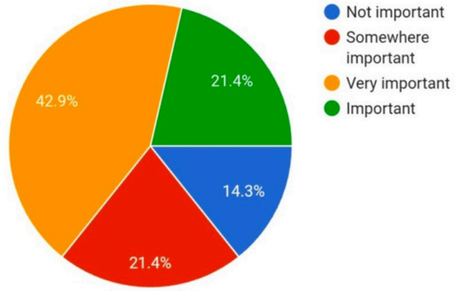
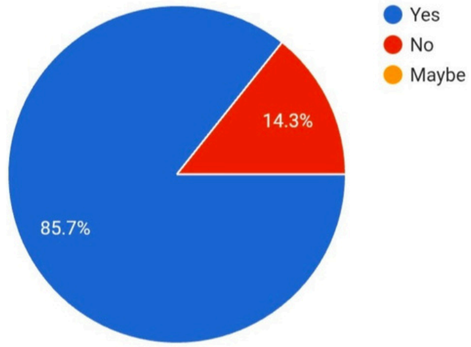
14 responses



alerts you if your cloths are missing ?

14 responses



If such laundry app are available how likely would use it ?

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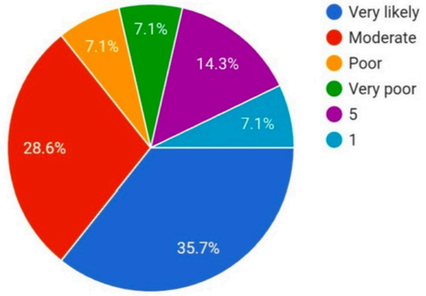
14 responses



SUMMARY

1.Survey conducted with 14 respondents on laundry habits & issues

2.Usage: Mostly weekly or 2–3 times a month

3.Problems: Missing clothes, delayed delivery, lack of updates

4.Preferred Features: Status tracking, reminders, pickup & delivery, digital receipts

5.Likelihood: Majority likely/very likely to use the app

Conclusion: Strong demand & high acceptance

SECONDARY RESEARCH

EXISTING STUDIES WE EXPLORED:

- Current hostel laundry practices (manual/outsourced) → issues of missing clothes, delays, poor communication, limited timings (Times of India, 2024).
- On-demand laundry services in India → market worth ₹36,340 Cr (2024), projected to ₹44,670 Cr by 2030 (Research & Markets, 2024).
- Examples: LaundroMINT, Dhobi G, ChotaDhobi (ChotaDhobi Blog, 2024).
- IoT-enabled hostel laundry at NITK → app for machine availability, booking, and notifications (Times of India, 2024).
- International case: Tufts University – CSCPay app for machine availability, payments, and cycle alerts (The Tufts Daily).

LIMITATIONS WE FOUND:

- No bag-level tracking → NITK system only tracks machines, not pickup/delivery of clothes.
- Delays in outsourced services remain unresolved.
- Affordability gap → On-demand services may be costly for some students.
- Limited pickup/drop timings in hostels.
- Poor communication → students lack real-time updates in many systems.
- Low adoption → tech-enabled laundry still limited to select institutions.

UNIQUE THEN OTHERS:

- Digital tracking of each wash cycle
- Status Flow: Received → Washing → Ready → Delivered
- Real-time notifications to students
- Monthly service reports generated & shared with hostel office
- Ensures end-to-end visibility & accountability
- Digital Hostel Card (QR-Based)
- Each student gets a digital hostel card with QR code
- Unique Bag ID / QR Code for every laundry bag
- Stain wash

BRIEF

A mobile solution to fix common laundry issues like missing clothes, delayed deliveries, and poor communication.

- Research FindingsPrimary: Survey of 14 users showed weekly use, frequent delays, missing items, and strong interest in features like real-time status tracking, digital receipts, reminders, and pickup/drop service.
- Secondary: Indian on-demand laundry market growing from ₹36,340 Cr (2024) to ₹44,670 Cr (2030). Existing systems (e.g., NITK, Tufts University) show benefits but lack bag-level tracking, affordability, and broad adoption.

- Proposed Features: Digital tracking of each wash cycle, unique QR codes for every laundry bag, digital hostel card, real-time notifications, monthly service reports.
- Goal: Ensure transparency, convenience, and trust while improving the overall laundry experience.