ChoreTap: NFC Shared Chore App

Working title. Project description for a UX case study.

Overview

ChoreTap is a shared-household chore system that pairs a small kit of NFC stickers with a companion app. Instead of opening an app, finding a task, and checking it off, a person taps their phone on the object where the chore happens (the trash bin, the dishwasher, the bathroom caddy). The tap logs the chore, credits the person, and updates everyone in the household instantly.

The Problem

Shared chores fail for social reasons more than organizational ones.

- **Invisible work:** nobody sees who took out the trash or cleaned the bathroom, so effort goes unrecognized and resentment builds quietly.
- **Unclear status:** "Did you already run the dishwasher?" and "Whose turn is it?" turn into repeated texts or arguments.
- **Too much friction in existing apps:** chore apps ask people to open an app, find the task, and tick a box. That step is the first thing people skip, so the log goes stale and the app gets abandoned.
- **Nagging as a role:** one roommate ends up acting as the manager, which strains the relationship.

Core insight: the tap should take one second and happen at the moment and place the chore is done, so logging it is nearly free.

The Solution

A kit of NFC stickers placed on household objects, tied to a shared app.

1. **Tap to complete:** tapping a sticker logs the chore with your name and time, with haptic and sound confirmation.
2. **Shared live feed:** everyone sees what was done and by whom, which makes effort visible.

3. **Automatic rotation:** the next person in the rotation gets a gentle notification, so no one has to be the nag.
4. **Fair-share view:** a simple weekly balance shows how the work is split, framed neutrally rather than as a leaderboard.
5. **No-app fallback:** each sticker opens a lightweight web page, so a guest or new roommate can tap without installing anything.

Where the NFC Tags Go

- **Trash bin lid or the wall above it:** logs "trash out" and rotates the task to the next person.
- **Dishwasher door:** logs "loaded" or "emptied" (tap for one, long-press for the other).
- **Washer or laundry hamper:** starts a load, pings you when the cycle ends, and shows the machine as in use.
- **Bathroom cabinet or cleaning caddy:** logs a clean and advances the rotation.
- **Kitchen counter or stove hood:** logs a kitchen reset.
- **A small physical chore token (keychain or magnet):** passed between roommates. Tapping it to your phone claims the current chore.
- **Fridge door:** a guest cheat-sheet tag that opens Wi-Fi, trash day, and house rules, no app required.
- **Front door:** an optional last-out checklist and quick household status view.

Placement notes: keep tags on non-metal surfaces or use anti-metal tags, since appliances are often metal. Print a visible tap-target icon on each sticker so people know where to touch, because phone antennas sit in different spots. Plan for a read range of about 1 to 4 cm.

Scope

In scope (MVP)

- Household setup: create a home and invite 2 to 5 roommates
- Starter kit of 5 to 6 stickers, each named and assigned in the app
- Tap-to-log, shared activity feed, and automatic rotation
- Gentle, customizable reminders and nudges
- Guest web fallback for tapping without the app

- Undo for accidental taps

Out of scope (for now)

- Payments or penalties between roommates
- Smart-home integrations
- Large households, families with kids, or property-manager use
- Gamification beyond simple streaks and shared goals

Target users: college students and young adults sharing apartments or dorm suites.

Case study deliverables: research plan and findings, personas and journey map, task flows, low-fi to hi-fi screens, a physical sticker kit prototype, usability testing results, and a reflection.

Key Research and Design Questions

Users and behavior

- How do roommates currently split and track chores, and where does it break down?
- What makes people skip logging a chore: friction, forgetfulness, or not wanting to be tracked?
- How do people feel about their chores being visible to roommates?

Social dynamics

- Does a visible feed motivate people or create pressure and shame?
- Who sets up the system, and how do you get buy-in from everyone?
- What happens when someone does a chore outside their turn, or doesn't do one?

Interaction and physical design

- Can people find and tap the right spot on the first try?
- How should accidental taps be undone?
- Do stickers survive moisture, heat, grease, and cleaning products?
- Are people without NFC-enabled phones, or with certain cases, left out?

Value

- Is tap-to-log meaningfully faster than a regular chore app?
- Does the system reduce arguments, or only record them?

Stakeholders

Primary

- **Roommates / household members:** the daily users, with differing habits, schedules, and tolerance for being tracked.
- **The household organizer:** the person who usually sets up the system and cares most about it working.

Secondary

- **Guests and temporary residents:** use the no-app fallback and must not be confused by the stickers.
- **Landlords or property managers:** care about adhesive on surfaces and upkeep of shared spaces.
- **Parents or family:** may care about a young adult's living situation but are not users.

Project and business

- **Designer / project team:** scope, prototype, and testing.
- **Advisors or instructors:** feedback on research rigor.
- **Hardware and platform:** NFC tag suppliers, plus iOS and Android support for reading NFC tags.
- **Potential partners:** cleaning-supply brands, student housing providers, or universities.

Research Sources

Primary research (most important for the case study)

- Semi-structured interviews with 5 to 8 people who live with roommates
- A short survey on chore-splitting habits and conflict
- A 1 to 2 week diary study of chores and frustrations
- Competitor and analog audit of existing chore apps and shared-list tools
- Usability tests of a paper-and-sticker prototype, including tap-target and placement tests

Secondary reading (verify details and citations before using them in your write-up)

- *The Second Shift* by Arlie Hochschild, on the unequal division of household labor
- *Fair Play* by Eve Rodsky, on how households divide and perceive unseen work

- *The Design of Everyday Things* by Don Norman, on affordances, feedback, and signifiers
- Nielsen Norman Group articles on diary studies, interviews, and usability heuristics
- NFC Forum documentation, plus Apple and Android developer docs on reading NFC tags
- Research on habit formation and friction in behavior-change apps

Risks and Open Questions

- Novelty may wear off, so test whether people are still tapping after several weeks.
- Tracking can feel like surveillance. Design for fairness and transparency, not scorekeeping.
- NFC reliability varies across phones and cases, so plan for a QR fallback.
- If one roommate refuses to participate, the system loses most of its value.

Suggested Next Steps

1. Interview 5 to 8 roommates.
2. Build a paper prototype with real stickers on a mock kitchen setup.
3. Test tap-target placement and accidental-tap recovery.
4. Decide between this concept and the NFC recipe book, using what you learn.