CSE 4408

System Analysis and Design

Lab 5: Information Gathering: Interactive Methods

Date: 25.06.2025

MedRadar

by team **CookiesAndCaches**

Maisha Sanjida- 220041128
Mahdi Islam - 220041149
Obidit Islam- 220041154

Key Stakeholders

Key Stakeholder groups and objectives to interview them

Users/Customers

- Discover pain points in searching for medicines
- The current system they use
- Expectations for a digitalized system

Pharmacy owners

- Current stock management processes
- Common issues with current system
- Willingness to use a digital platform

Technical Team

- Technical constraints and complexity
- Experience with these kind of systems
- Estimation of time needed

Interview Guide

Customers; Flow - Funnel

Closed Ended Questions

Have you ever faced difficulty finding a specific medicine in local pharmacies near you?

□ Yes □ No

Open- Ended Questions

Can you walk me through how you usually find a nearby pharmacy when you need medicine urgently?

Probing Questions

Would you find it helpful to have an app that shows which nearby shops have your required medicine in stock?

Interview Guide

Pharmacy Staff; Flow - Diamond

Closed Ended Questions

Do you currently face issues with medicine overstocking or wastage?

□ Yes □ No

Open- Ended Questions

If you could change one thing about how inventory is managed in your store, what would it be?

Probing Questions

How do you currently decide how much stock to reorder for fast-selling medicines?

Interview Guide

Technical Team; Flow-Pyramid

Closed Ended Questions

Have you implemented inventory syncing with any external platforms before?
□ Yes □ No

Open- Ended Questions

What kind of systems are typically used in pharmacies for managing inventory?

Probing Questions

What infrastructure constraints (network, devices, etc.) might we face in small/local pharmacies?

Questionnaire Objective

Primary Objective:

- The pain points of the current system,
- Our opportunities to solve them and
- Expectation of the stakeholders in this matter

Target: Pharmacy users and staff
Distribution: Google Forms via Messenger groups
Timing Strategy: 5-day window, 2 reminders (Day 2 and Day 4)

Questionnaire Objective

Sample Questions:

- **How satisfied are you with your current method of finding nearby pharmacies?**
  (1-5)
- **How often do you face issues finding medicine in nearby pharmacies?**
  a) Rarely b) Often c)Always d)Never
- **What do you wish pharmacies did better when you're looking for medicines?**

Key Observation

Pain Points:

- Users can’t find real-time medicine availability
- Pharmacy contact info is often outdated or missing
- Pharmacies lose customers due to stockouts
- Complex UIs don’t work well on low-end devices

Expectations:

- **Customers** want a fast, simple app to make quick decisions
- **Pharmacies** want low-effort, automated inventory updates and analytical reports
- Tech teams need system/device compatibility

Feature List

Functional Requirements

***Customers*:**

- Search for medicines by name, pharmacy, or location
- View real-time stock availability from nearby pharmacies
- Apply filters (e.g., medicine type, location, availability
- Search by alternative or generic medicine names
- Order medicines if delivery is possible

***Pharmacy owners*:**

- Register pharmacy and manage profile (hours, contact, delivery options)
- Update inventory manually or through automated POS integration
- Generate reports (e.g., sales trends, frequently searched medicines)

Feature List

Non-Functional Requirements

- Fast search results
- Reliable uptime
- Encrypts user data securely
- Intuitive UI

Business Requirements

- Increase visibility of local pharmacies
- Support and align with OSW’s student welfare objectives
- Gather usage data for improvements
- Enable future integration (e.g e-prescription)

Feature List

User Requirements

***Customers*:**

- Find nearby pharmacies easily
- Get accurate, up-to-date stock info
- Search by various filters (category, location)

***Pharmacy owners*:**

- Easy stock update options
- Dashboard with analytics
- View customer interest in medicines

Technical Constraints

- Must use free-tier tools and services only (e.g., Firebase, Maps API)
- must not handle sensitive medical/personal data
- Hosted on a cloud platform
- Stock updates will be manual in Phase 1, and automation may come later

Other Interactive Methods

Storytelling:

- **Example: Student visited 4 pharmacies during exams for antibiotics—none had updated stock.**

- **Helps with**
  - Convey the purpose of the platform
  - Helps the solution resonate emotionally with end-users
  - Boosts user engagement and trust
  - Finds exception cases
  - Allows venting(revealing pain points)

Other Interactive Methods

JAD Workshop Feasibility

Potential Benefits:

- Aligns stakeholders
- Promotes early feedback and collaboration
- Helps sketch UI and refine MVP
- Catches misunderstandings early

Challenges

- Pharmacy/OSW scheduling is limited
- IUT culture prefers short, focused meetings
- Some stakeholders lack tech background
- MedRadar doesn’t require full-scale JAD

Conclusion

- Full JAD is not practical
- Mini-sessions or 1:1 follow-ups are better
- Balances speed with stakeholder input

Conclusion

- MedRadar solves real-time medicine availability issues.
- Stakeholder input revealed essential needs and challenges.
- Storytelling uncovered hidden pain points.
- JAD not feasible now; focused methods preferred.

Thank you!

Feel free to ask any questions!