Task 1

Description: Mobile Health Monitoring App

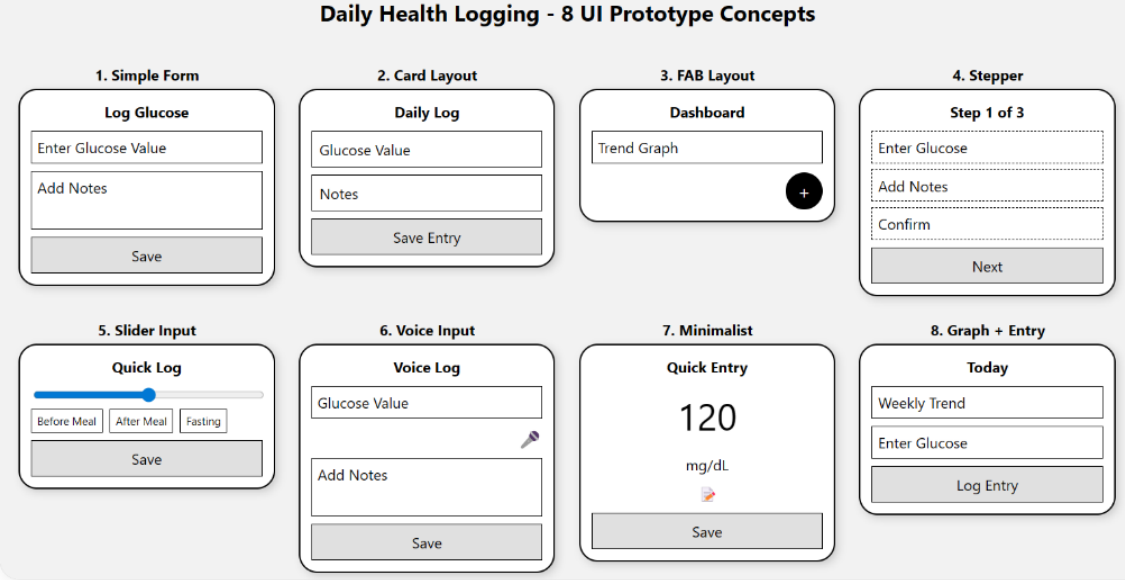
1. Using Crazy 8s technique, sketch 8 different interface ideas for the "Daily Health Logging" screen in 8 minutes.
2. From your 8 sketches, select the best 2 concepts based on usability and simplicity.
3. Create a paper prototype (using paper, sticky notes, markers) for the complete flow: "Log glucose → Add notes → View confirmation" (5–7 paper screens).
4. Test your paper prototype with a classmate (5-minute think-aloud test) and document 3 key observations.

Process:

1. Crazy 8s Ideation (Theoretical Exercise)
The Crazy 8s ideation technique was conceptually applied to generate eight different interface ideas for the “Daily Health Logging” screen. This method encourages rapid exploration of multiple design possibilities within a limited time.
The following eight conceptual layouts were developed:

1. **Simple Vertical Form Layout**
   A structured form with a glucose input field at the top, notes section below, and a save button at the bottom. This layout emphasizes clarity and familiarity.
2. **Card-Based Layout**
   Information grouped into separate cards for glucose entry, notes, and action buttons. This improves visual organization.
3. **Floating Action Button (FAB) Layout**
   A dashboard screen with a “+ Log” button that opens a modal for entering glucose and notes. This keeps the main interface clean.
4. **Stepper (Multi-Step) Layout**
   A guided process divided into steps:
   - Step 1: Enter glucose
   - Step 2: Add notes
   - Step 3: Confirm entry
     This reduces cognitive load by dividing tasks.
5. **Slider-Based Entry Layout**
   A slider control for selecting glucose values with optional quick note tags for faster input.
6. **Voice-Input Supported Layout**
   Includes a microphone icon allowing users to dictate glucose readings and notes.
7. **Minimalist Quick-Entry Layout**
   A large numeric input in the center of the screen with minimal additional elements.

8. **Graph + Entry Layout**
   A small trend graph at the top with quick-entry options below to provide contextual information.



2. Selection of Best Two Concepts

Based on theoretical evaluation of usability and simplicity, the following two concepts were selected:

Concept 1: Simple Vertical Form Layout

This design is intuitive and follows common mobile interaction patterns. It minimizes confusion and supports straightforward task completion.

Concept 2: Stepper Layout

The guided step-by-step structure ensures clarity and reduces user errors. It is especially suitable for healthcare applications where accuracy is important.

These concepts were chosen because they prioritize ease of use, clarity, and structured task flow.

3. Paper Prototype Design (Conceptual Representation)

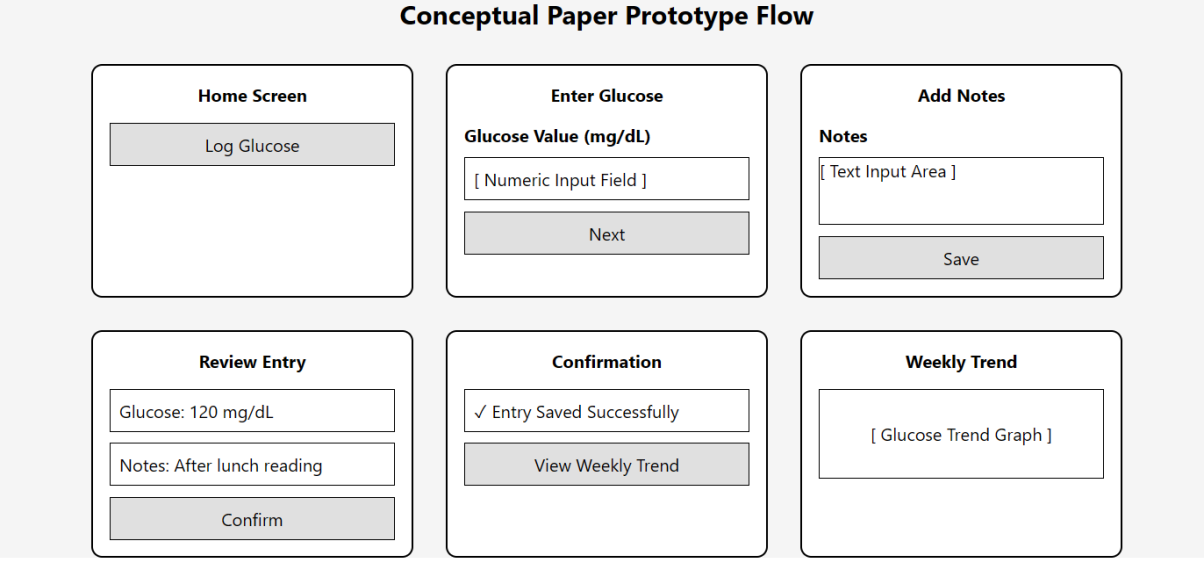
A conceptual paper prototype was designed to simulate the flow:

Log Glucose → Add Notes → View Confirmation

The assumed prototype included the following screens:

1. **Home Screen**
   Contains a “Log Glucose” button.
2. **Enter Glucose Screen**
   Numeric input field and “Next” button.
3. **Add Notes Screen**
   Text input area and “Save” button.
4. **Review Screen**
   Displays entered glucose value and notes for verification.
5. **Confirmation Screen**
   Displays a success message indicating that the entry has been saved.
6. **Weekly Trend Screen (Optional)**
   Displays a simplified graphical representation of glucose data.

This conceptual prototype demonstrates the logical flow and interaction sequence.



4. Usability Testing (Hypothetical Think-Aloud Study)

A hypothetical 5-minute think-aloud usability test was assumed for evaluation purposes. In this scenario, a participant would be asked to log a glucose reading and add notes while verbalizing their thoughts.

The following observations were theoretically identified:

1. Users may hesitate if button labels are unclear (e.g., “Next” vs. “Continue to Notes”).
2. Users expect consistent navigation controls such as a visible back button.
3. Confirmation feedback is important to reassure users that data has been successfully saved.

These observations highlight the importance of clarity, feedback, and navigation consistency in health applications.

Task 2

Description: University Course Registration System

1. Sketch multiple interface ideas for the "Course Search and Filter" functionality using rapid sketching (10 minutes, 5+ sketches).
2. Create a paper prototype for the flow:
   "Search course → Filter results → View details → Add to cart" (6–8 paper screens).
3. Conduct a quick usability test with a peer and note:
   - 1 point of confusion
   - 1 aspect that worked well
   - 1 suggestion for improvement

Process:

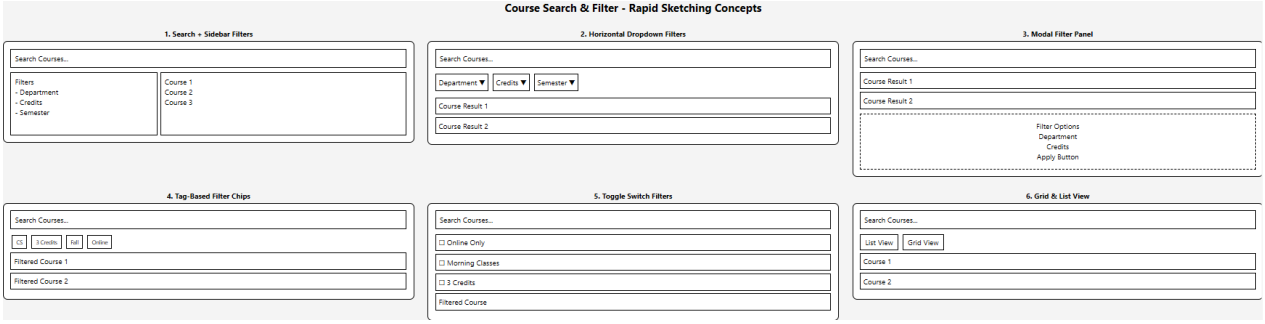
1. Rapid Sketching (Theoretical Exploration)

Multiple interface concepts were theoretically explored for the “Course Search and Filter” functionality:

1. Search bar with sidebar filters
2. Horizontal dropdown filter bar
3. Modal popup filter panel
4. Tag-based filter chips

5. Toggle switches for course type
6. Grid and list view options

Each layout explored different methods of presenting search results and filtering mechanisms.

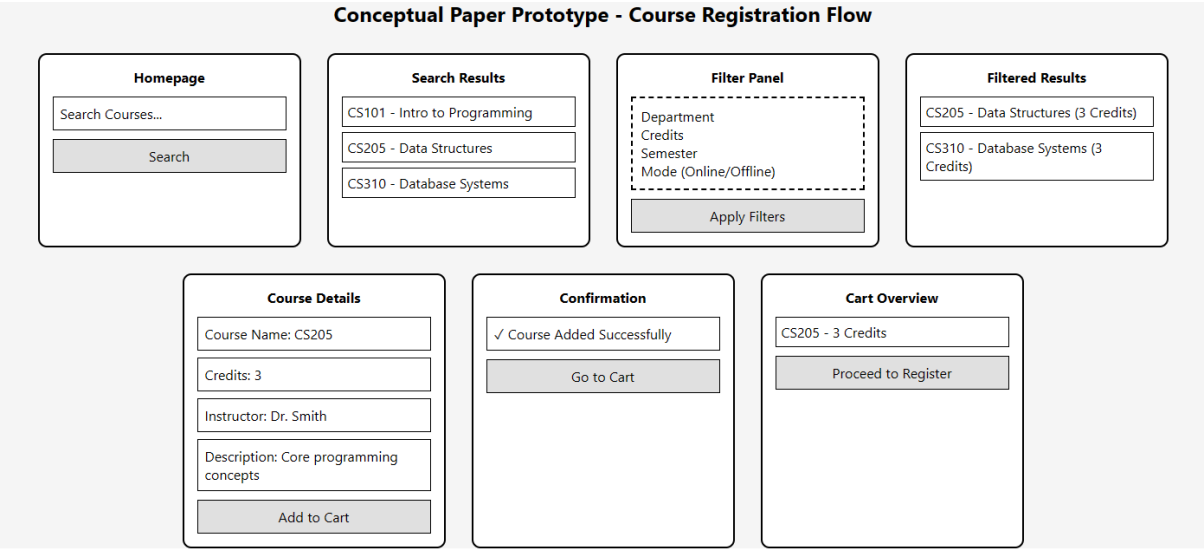


2. Paper Prototype Flow (Conceptual)

A conceptual paper prototype was assumed for the following flow:
Search Course → Filter Results → View Details → Add to Cart
The prototype included:

1. Homepage with search bar
2. Search results page
3. Filter panel interface
4. Filtered results display
5. Course detail page
6. Add to cart confirmation screen
7. Cart page overview

This theoretical prototype demonstrates structured interaction and progressive disclosure of information.



3. Hypothetical Usability Test

A peer-based usability test was theoretically assumed where a user searches for a 3-credit course and adds it to the cart.
Theoretical findings:

- **Point of Confusion:** The filter option may not be immediately visible if not prominently placed.
- **Aspect that Worked Well:** The search bar is easily recognizable and intuitive.

- **Suggestion for Improvement:** Display active filter tags to improve visibility and control.

Task 3

Description: Documentation & Digital Translation

1. Photograph or scan your paper prototypes from Tasks 1 and 2.
2. Create digital low-fidelity wireframes in Figma based on your refined paper prototypes.
3. Annotate your wireframes with:
    - User actions (what the user does)
    - System responses (what happens)
    - Design decisions (why you designed it this way)
4. Save and export your Figma file and annotations.

Prerequisites: Figma

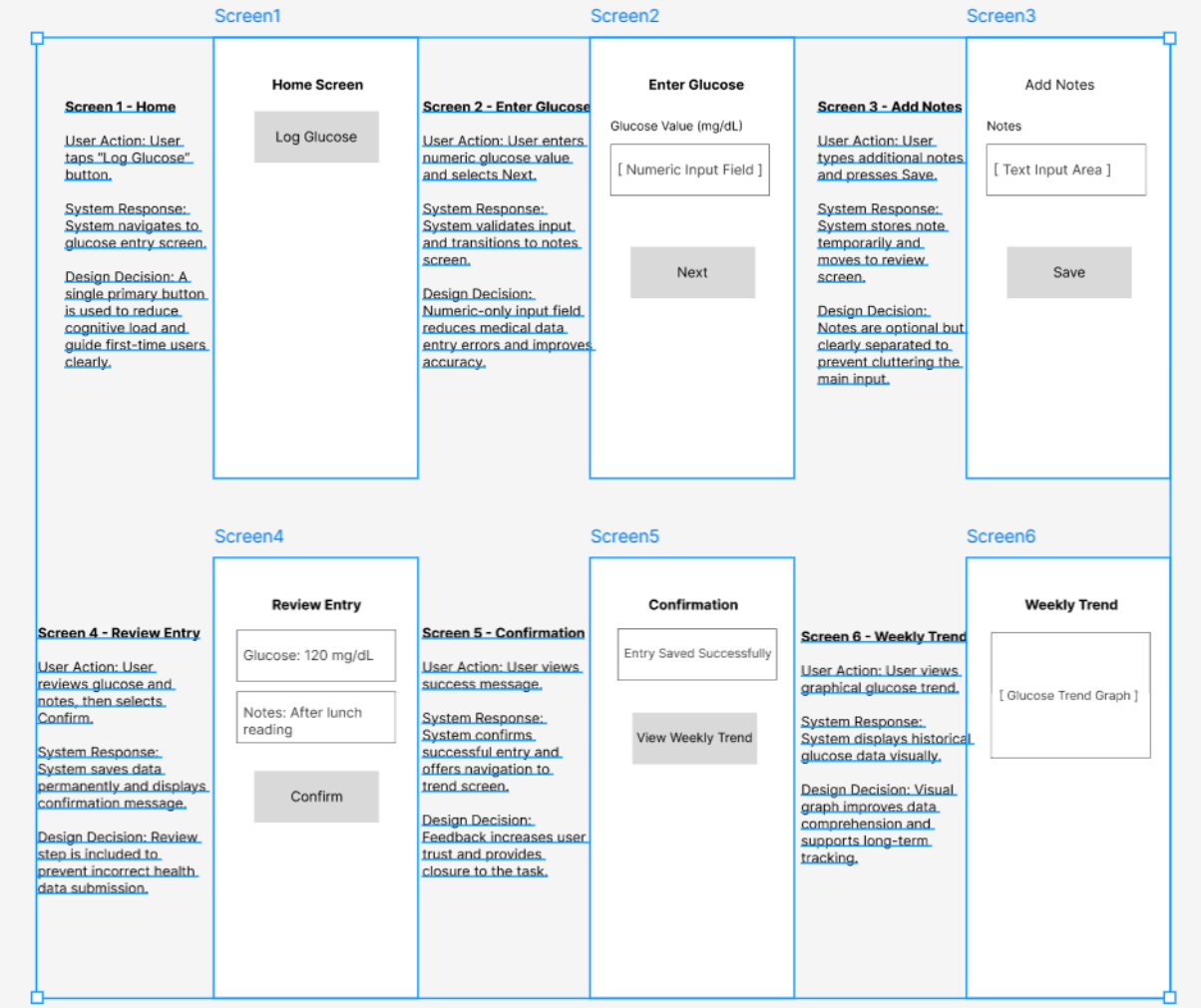
Process:

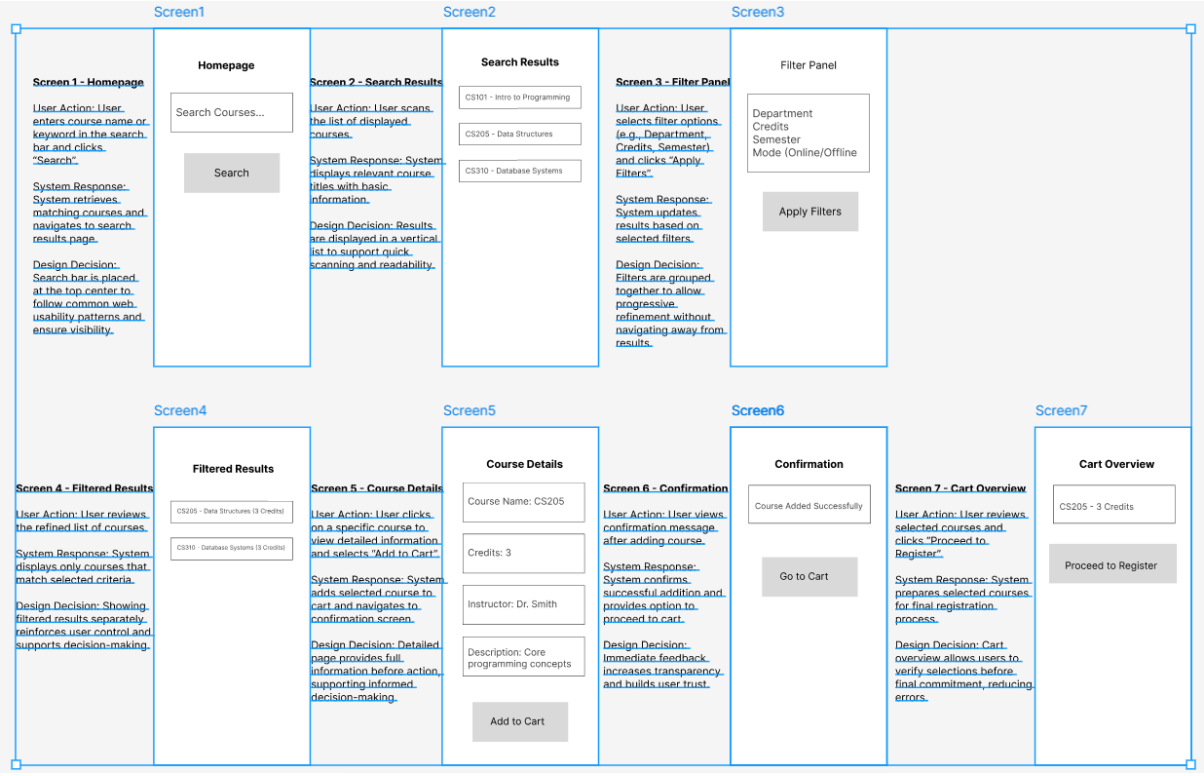
1. Prototype Documentation
The conceptual paper prototypes would be photographed or scanned for documentation purposes.

2. Digital Low-Fidelity Wireframes
The selected prototype concepts would be recreated in Figma using grayscale shapes and minimal styling to maintain low-fidelity standards.

3. Wireframe Annotations
Each screen would include annotations describing:

- **User Actions:** What the user clicks or inputs.
- **System Responses:** How the system reacts (validation, confirmation, filtering results).
- **Design Decisions:** Justification for layout structure, button placement, and navigation flow


Screen1
Screen2
Screen3
Screen 1 - Home
User Action: User taps "Log Glucose" button.
System Response: System navigates to glucose entry screen.
Design Decision: A single primary button is used to reduce cognitive load and guide first-time users clearly.
Home Screen
Log Glucose
Screen 2 - Enter Glucose
User Action: User enters numeric glucose value and selects Next.
System Response: System validates input and transitions to notes screen.
Design Decision: Numeric-only input field reduces medical data entry errors and improves accuracy.
Enter Glucose
Glucose Value (mg/dL)
[Numeric Input Field]
Next
Screen 3 - Add Notes
User Action: User types additional notes and presses Save.
System Response: System stores note temporarily and moves to review screen.
Design Decision: Notes are optional but clearly separated to prevent cluttering the main input.
Add Notes
Notes
[Text Input Area]
Save
Screen4
Screen5
Screen6
Screen 4 - Review Entry
User Action: User reviews glucose and notes, then selects Confirm.
System Response: System saves data permanently and displays confirmation message.
Design Decision: Review step is included to prevent incorrect health data submission.
Review Entry
Glucose: 120 mg/dL
Notes: After lunch reading
Confirm
Screen 5 - Confirmation
User Action: User views success message.
System Response: System confirms successful entry and offers navigation to trend screen.
Design Decision: Feedback increases user trust and provides closure to the task.
Confirmation
Entry Saved Successfully
View Weekly Trend
Screen 6 - Weekly Trend
User Action: User views graphical glucose trend.
System Response: System displays historical glucose data visually.
Design Decision: Visual graph improves data comprehension and supports long-term tracking.
Weekly Trend
[Glucose Trend Graph]


Screen1
Screen2
Screen3
Screen 1 - Homepage
User Action: User enters course name or keyword in the search bar and clicks "Search".
System Response: System retrieves matching courses and navigates to search results page.
Design Decision: Search bar is placed at the top center to follow common web usability patterns and ensure visibility.
Homepage
Search Courses...
Search
Screen 2 - Search Results
User Action: User scans the list of displayed courses.
System Response: System displays relevant course titles with basic information.
Design Decision: Results are displayed in a vertical list to support quick scanning and readability.
Search Results
CS101 - Intro to Programming
CS205 - Data Structures
CS310 - Database Systems
Screen 3 - Filter Panel
User Action: User selects filter options (e.g., Department, Credits, Semester) and clicks "Apply Filters".
System Response: System updates results based on selected filters.
Design Decision: Filters are grouped together to allow progressive refinement without navigating away from results.
Filter Panel
Department
Credits
Semester
Mode (Online/Offline
Apply Filters
Screen4
Screen5
Screen6
Screen7
Screen 4 - Filtered Results
User Action: User reviews the refined list of courses.
System Response: System displays only courses that match selected criteria.
Design Decision: Showing filtered results separately reinforces user control and supports decision-making.
Filtered Results
CS205 - Data Structures (3 Credits)
CS310 - Database Systems (3 Credits)
Screen 5 - Course Details
User Action: User clicks on a specific course to view detailed information and selects "Add to Cart".
System Response: System adds selected course to cart and navigates to confirmation screen.
Design Decision: Detailed page provides full information before action, supporting informed decision-making.
Course Details
Course Name: CS205
Credits: 3
Instructor: Dr. Smith
Description: Core programming concepts
Add to Cart
Screen 6 - Confirmation
User Action: User views confirmation message after adding course.
System Response: System confirms successful addition and provides option to proceed to cart.
Design Decision: Immediate feedback increases transparency and builds user trust.
Confirmation
Course Added Successfully
Go to Cart
Screen 7 - Cart Overview
User Action: User reviews selected courses and clicks "Proceed to Register".
System Response: System prepares selected courses for final registration process.
Design Decision: Cart overview allows users to verify selections before final commitment, reducing errors.
Cart Overview
CS205 - 3 Credits
Proceed to Register