

# **eyouth x DEPI Final Project Proposal**

## **Project Description**

Who's Care is a comprehensive mobile application designed to support Alzheimer's patients (early to mid-stage) and their non-professional caregivers in Egypt. The application addresses the critical gap in culturally-appropriate, Arabic-language support systems for families managing Alzheimer's disease.

## **Problem Statement**

Alzheimer's patients and their caregivers face daily challenges in managing medical, emotional, and practical needs due to the lack of an integrated support system, leading to increased psychological and social burden. Current solutions are either unavailable in Arabic, not adapted to Egyptian cultural context, or too complex for the target users.

## **Solution**

A dual-interface mobile application that provides:

- For Patients: Simple, dignity-preserving interface with medication reminders, family connections, and memory support
- For Caregivers: Comprehensive monitoring, practical step-by-step guidance, community support, and peace of mind through smart alerts
- For All: Culturally-sensitive, Arabic-first content that respects religious values and family dynamics

## **Target Impact**

- Improve medication adherence rates by 80%
  - Reduce caregiver stress and burnout
  - Empower families with practical, actionable guidance
  - Create a supportive community for those affected by Alzheimer's
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## **Group Members & Roles**

### **1. Lobna Ahmed Fathy Ali “Team Leader”**

- Manage project timeline and Lead presentation and documentation efforts.
- UX Research.
- UI Designe.

### **2. Nada Gamal Fouad Tawfek**

- Brand Implementation.
- Personas.

### **3. Ziyad Ahmed Elkhodary Saad**

- Empathy map.
- Prototype.

### **4. Mohamed Hassan Abbas Shalapy**

- Content .
  - Prototype.
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## **Project Objectives**

### **Primary Objectives:**

1. Develop a culturally-appropriate digital solution that addresses the specific needs of Egyptian Alzheimer's patients and caregivers.
2. Create an intuitive, accessible interface suitable for elderly patients and stressed caregivers.
3. Provide practical, actionable guidance rather than general advice.
4. Build a supportive community to reduce isolation and share experiences.
5. Design a scalable solution that can be adapted to other Arab countries.

### **Secondary Objectives:**

1. Establish design guidelines for healthcare applications in the Arab region.
2. Validate human-centered design methodology in addressing complex social challenges.

3. Create a portfolio-worthy case study demonstrating end-to-end UX process.
  4. Develop a testable, high-fidelity prototype ready for development handoff.
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## **Tools & Technologies**

### **Research & Analysis:**

- User Research: In-depth interviews, surveys .
- Analysis Tools: Affinity mapping, thematic analysis.
- Documentation: Google Docs.

### **Design Tools:**

- Wireframing: Figma, FigJam.
- Prototyping: Figma (high-fidelity interactive prototypes).
- Design System: Figma components and variants.
- Collaboration: Figma comments and version control.

### **User Testing:**

- Usability Testing: Maze, UserTesting.
- Feedback Collection: Google Forms, In-person testing sessions.
- Analytics: Hotjar (for prototype interaction tracking).

### **Visual Design:**

- Icons: Figma icons.
- Illustrations: Custom illustrations, Undraw (adapted).
- Colors: Accessible color palette (WCAG 2.1 AA compliant).
- Typography: Alexandria font (Arabic & English support).

### **Documentation & Presentation:**

- Process Documentation: Google Docs.
- Presentation: Figma slides, PowerPoint.
- Video Demonstrations: Screen recording
- Portfolio: Behance case study.

## **Milestones & Deadlines**

### **Phase 1: Research & Discovery (Completed)**

Duration: September 6 - September 16, 2025

Status: Complete.

Deliverables:

- Secondary research report (15 academic sources)
- Primary research: 3 in-depth interviews conducted
- Affinity mapping completed
- 3 detailed user personas created
- "How Might We" statements defined
- Problem validation complete

### **Phase 2: Define & Ideate (Completed)**

Duration: September 16- September 26, 2025

Status: Complete.

Deliverables:

- User journey maps (Patient & Caregiver)
- Empathy maps.
- Pain points & gain documentation.
- Feature prioritization matrix (Must-have, Should-have, Nice-to-have).
- Information architecture.
- User flows for key scenarios.
- Competitive analysis.
- Design principles definition.

### **Phase 3: Design & Prototype (Current Phase)**

Duration: September 27- October 31, 2025

Current Progress: 70 % complete.

Week 1 (Sep 27- Oct 3): Design System & Wireframes

- Design system creation (colors, typography, components).

- Low-fidelity wireframes (+20 key screens).
- Design review with team.

#### Week 2 (Oct 4 - Oct 18): High-Fidelity Design

- Visual design for patient interface (+5 screens).
- Visual design for caregiver interface (+7 screens).
- Accessibility audit.
- Design system documentation.

#### Week 3 (Oct 19- 31): Interactive Prototype

- Interactive prototype creation.
- Micro-interactions and animations.
- Prototype testing preparation.
- Design handoff documentation.

### **Phase 4: Testing & Iteration (Next Phase)**

Duration: November 1- November 28, 2025

Deadline: November 28, 2025.

#### Week 1 (Nov 1- 14): Usability Testing

- Recruit 8-10 test participants (caregivers and patients).
- Conduct moderated usability tests.
- Analyze findings and identify issues.
- Prioritize improvements.

#### Week 2 (Nov 15- 28): Iteration & Refinement

- Implement design improvements.
- Second round of testing (if needed).
- Final prototype polish.
- Accessibility validation.

### **Phase 5: Documentation & Presentation**

Duration: November 29- December 9, 2025

Deadline: December 9, 2025

## Week 1 (Nov 29- Dec 5): Documentation

- Complete design documentation
- Case study creation
- Process documentation
- Design specifications for developers

## Week 2 (Dec 6-9): Final Presentation

- Presentation deck creation
- Demo video production
- Rehearsal and refinement
- Final submission preparation

**Final Submission: December 10, 2025**

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## Key Performance Indicators (KPIs)

### 1. Research & User Insights

**Objective:** Conduct thorough user research and identify key pain points. Create detailed user personas and journey maps.

#### Target Metrics:

- Complete minimum 3 patient interviews representing diverse demographics (age, education level, economic status, geographic location).
- Complete minimum 5 caregiver interviews with varying relationships to patients (spouse, children, siblings) and technical experience levels.
- Interview 7 healthcare specialists (neurologists, social workers, technology experts, Alzheimer's association representatives).
- Identify and document minimum 15 critical pain points through affinity mapping.
- Develop 3 detailed user personas with validated research evidence.

- Create comprehensive journey maps for each persona showing current state and pain points.
- Document all research findings with supporting quotes and observations.
- Validate research through secondary research on global and Arab-specific Alzheimer's prevalence and caregiver burden.

### **Success Criteria:**

- Research findings directly inform design decisions.
- All personas grounded in actual user interviews.
- Pain points validated across multiple participants.
- Cultural and contextual factors clearly documented.

## **2. Wireframing & Prototyping**

**Objective:** Develop clear, well-structured wireframes and prototypes. Ensure designs align with user needs and project goals.

### **Target Metrics:**

- Create wireframes for minimum 3 core user flows addressing all five HMW questions.
- Develop separate wireframe sets for three user types: patients, caregivers, and healthcare professionals.
- Design wireframes for key screens: patient dashboard, medication management, daily tasks, care team communication, learning resources, emergency access.
- Build interactive prototype for patient flow with core features (medication reminders, daily activities, emergency access).
- Build interactive prototype for caregiver flow with core features (patient monitoring, care notes, community access, alerts).
- Ensure all wireframe designs directly map to identified user needs and pain points.
- Document design decisions and rationale for key interface choices.
- Create clickable prototypes demonstrating key user journeys.

### **Success Criteria:**

- Prototypes demonstrate understanding of user workflows.

- All core pain points addressed through design solutions.
- Designs are feasible to implement within technical constraints.
- Wireframes clearly show information hierarchy and navigation.

### **3. Usability & Testing**

**Objective:** Conduct usability testing to identify and fix UX issues. Gather and analyze user feedback for improvements.

**Target Metrics:**

- Conduct usability testing with minimum 8-10 participants (mix of patients, caregivers, and professionals).
- Achieve minimum 80% task completion rate on primary user flows.
- Document all usability issues identified (critical, major, minor).
- Implement fixes for 100% of critical issues and 90% of major issues.
- Conduct second round of testing to validate improvements.
- Measure user satisfaction score (target: 4/5 or higher).
- Perform accessibility testing with screen readers and contrast validators.
- Document all user feedback and recommendations for improvement.

**Success Criteria:**

- Critical usability issues resolved before final submission.
- Users can complete core tasks with minimal assistance.
- Design changes validated through iterative testing.
- Accessibility standards met for elderly user population.

### **4. Visual & Interaction Design**

**Objective:** Maintain consistent and visually appealing design. Ensure intuitive navigation and smooth user interactions.

**Target Metrics:**

- Develop comprehensive design system including:



- Color palette (minimum 2 primary colors with accessibility validation).
- Typography system (minimum 3 heading styles + body text).
- Component library (buttons, cards, forms, modals, navigation patterns).
- Iconography system (minimum 20 icons reflecting cultural context).
- Spacing and layout grid system.
- Apply design system consistently across minimum 20 high-fidelity screens.
- Ensure visual hierarchy is clear on all interfaces through typography, color, and spacing.
- Design smooth transitions and micro-interactions for key user actions.
- Achieve WCAG AA accessibility compliance.
- Implement large font options and high contrast mode options.
- Create design handoff documentation for developers.

### **Success Criteria:**

- Design is consistent across all screens.
- Visual system supports elderly user accessibility.
- Interactions feel intuitive and responsive.
- Arabic RTL implementation is considered in all layouts.
- Cultural appropriateness validated in design choices.

## **5. Final Presentation & Documentation**

**Objective:** Deliver a well-documented design process with key insights. Present a compelling final prototype with strong usability.

### **Target Metrics:**

- Complete comprehensive user research synthesis report (10-15 pages) including:
  - Research methodology.
  - Participant demographics and profiles.
  - Key findings and insights.
  - Pain point analysis.

- Persona development process.
- Recommendations based on research.
- Create design system documentation (5-10 pages) including:
  - Design principles and philosophy.
  - Component specifications and usage guidelines.
  - Accessibility considerations.
  - Implementation notes for developers.
- Develop design rationale document (15+ pages) explaining:
  - Design decisions for each major feature.
  - How designs address identified pain points.
  - Cultural considerations in design choices.
  - Accessibility implementation details.
  - User feedback and iterations.
- Prepare final presentation deck for stakeholders (20-30 slides) including:
  - Project overview and problem statement.
  - Research findings summary.
  - User personas and journey maps.
  - Design solutions and prototypes.
  - Usability testing results.
  - Implementation recommendations.
  - Next steps and scalability potential.
- Generate accessibility audit report validating WCAG AA compliance.
- Organize all design files (Figma, prototypes, assets) with clear naming and structure.
- Document implementation recommendations for healthcare providers including:
  - Deployment strategy.
  - User training recommendations.
  - Maintenance and update protocols.
  - Potential integration points with healthcare systems.

### **Success Criteria:**

- All documentation clearly communicates research insights and design solutions.

- Presentation tells compelling story of user needs and how design addresses them.
  - Documentation sufficient for handoff to development team.
  - Healthcare provider recommendations are actionable and realistic.
  - Files are organized and accessible for future iterations.
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