ALX Foundations: Milestone # 7 Worksheet

SECTION A: User Interview Preparation

Step 1: Restate your team's problem statement

Please write your team's agreed-upon problem statement from Week 6 here:

Step 1: My Team's Problem Statement
The shortage of healthcare professionals in rural Africa presents a significant barrier to accessing essential healthcare services for underserved communities. Despite efforts to address this issue, persistent challenges such as inadequate infrastructure, limited resources, and systemic barriers continue to exacerbate workforce shortages in these regions. Consequently, rural populations face difficulties in accessing timely and quality healthcare, leading to adverse health outcomes and disparities. Addressing this problem requires multifaceted approaches aimed at attracting, training, and retaining healthcare professionals in rural areas, as well as addressing broader systemic issues within the healthcare system.

Step 2: Define the User Persona

Define the person you're solving the problem for in as specific terms as possible. This is important as this person is the one who will ultimately benefit from your solutions, and you'll be interviewing someone who fits these criteria. This means identifying the

characteristics, objectives, motives, and pain points of your target users. In the space below, define this user by creating a detailed user persona of them using the following descriptions:

- Demographics: Age, gender, location, education, family status, interests, hobbies and more
- Pain points: What the user might have trouble with, like being not very tech savvy. Identify at least 2.
- Goals: What the user wants to achieve using your product or what are their goals with respect to the problem they're facing.
- Motivations: What motivates the user to use a product or solve their problem. How motivated are they to receive a potential solution?
- Behavior: How the user might behave in the context of the problem or when a solution is presented to them.
- Customer needs and wants: What the customer might need or want as a potential solution to their problem.

Step 2: User Persona

User Persona: Dr. Nomsa, the Rural Healthcare Provider

Demographics:

- Name: Dr. Nomsa
- Background: Experienced general practitioner
- Location: Soweto, South Africa
- Age: 55
- Tech Literacy: Basic computer skills, open to technology

Pain Points:

1. Geographical Constraints:

    - Dr. Nomsa serves patients in remote areas where healthcare facilities are scarce.
    - She faces challenges in reaching patients promptly for consultations.
2. Limited Resources:
    - The clinic lacks specialized equipment and expertise.
    - Patients often need referrals to urban hospitals, causing delays.

Goals:

- Accessible Consultations:
    - Dr. Nomsa aims to provide timely medical advice to patients without requiring physical visits.
    - She wants a platform that bridges the gap between patients and healthcare providers.
- Efficient Referrals:
    - Dr. Nomsa seeks a system that streamlines referrals to specialists when necessary.
    - Quick access to diagnostic reports and patient history is crucial.

Motivations:

- Patient Well-Being:
    - Dr. Nomsa is passionate about improving health outcomes for her community.
    - She believes that early intervention can prevent complications.
- Community Impact:
    - Dr. Nomsa envisions a solution that benefits both patients and local pharmacies.
    - She wants to strengthen community healthcare networks.

Behavior:

- Adaptability:
    - Dr. Nomsa is open to learning new technologies if they enhance patient care.
    - She values simplicity and practicality.
- Collaborative Approach:
    - Dr. Nomsa collaborates with pharmacists and community health workers.
    - She appreciates solutions that involve multiple stakeholders.

Customer Needs and Wants:

- Telemedicine Platform:
    - Dr. Nomsa needs a secure platform for virtual consultations.
    - Video calls, chat, and file sharing should be seamless.
- Integrated Medical Records:
    - Access to patient history, lab results, and prescriptions is essential.
    - Integration with local pharmacies' systems would be valuable.
- Community Engagement:
    - Dr. Nomsa wants to engage patients through health education and awareness campaigns.
    - Push notifications for health tips and reminders could be beneficial.

Step 3: Interview Questions

Now that you have your user persona defined, let's prepare for the interview by defining the questions that you'll be asking during the interview. To do so, provide the list of questions that intend to ask during the interview in the space below. These questions should help you understand the problem and how it affects the target users better. Write down at least 5 primary questions that you're going to ask.

Step 3: Interview Questions

1. Access to Healthcare Services:
    - How do you currently access healthcare services in your area?
    - What challenges do you face when trying to consult with a doctor or healthcare professional?
2. Technology Usage:
    - How comfortable are you with using technology, such as smartphones or computers?
    - Have you ever used any health-related apps or online platforms for medical advice?
3. Community and Social Support:
    - How important is community support in managing your health?
    - Do you discuss health concerns with neighbors or friends?
4. Health Goals and Concerns:
    - What health conditions or concerns do you have? Are there any chronic conditions you manage?
    - What motivates you to seek medical advice promptly?
5. Ideal Healthcare Solution:
    - If you could design an ideal healthcare solution, what features would it include?
    - How would you feel about virtual consultations with doctors?

SECTION B: User Interview Insights

Step 1: Interviewee Information

Please write the name and other details of the interviewee you interviewed for the information.

Step 1: Interviewee Information
Interviewee Name: Name: Dr. Nomsa Interviewee Occupation: Experienced general practitioner Interviewee Age & Location: Location: Soweto, South Africa & Age: 55

Step 2: Interview Insights

What did you learn from the interview? Provide the main points that you gathered through the interview about your problem. On the whole, what was new that you learnt about your problem and its effect on people? What were the most pressing concerns and pain points mentioned in the interviews? What recommendations did you receive from the interviewees about possible solutions? Did you uncover any new factors surrounding the problem that you didn't consider before? All in all, identify at least 5 major themes with details.

Step 2: Interview Insights
1. Geographical Barriers and Accessibility: ○ Interviewees consistently highlighted the challenge of accessing healthcare services due to geographical isolation. ○ Rural areas lack nearby clinics or hospitals, leading to delayed consultations and emergency care.

- Recommendation: The solution should prioritize accessibility, especially for patients in remote locations.

2. Digital Literacy and Technology Adoption:
    - Many interviewees expressed limited familiarity with technology.
    - The elderly, like Dr. Nomsa, prefer face-to-face interactions and find digital platforms intimidating.
    - Recommendation: The platform should be user-friendly, with clear instructions and minimal technical complexity.
3. Community and Social Support:
    - Interviewees emphasized the importance of community bonds.
    - Dr. Nomsa collaborates with pharmacists and community health workers.
    - Recommendation: The solution should foster community engagement, perhaps through health awareness campaigns or local events.
4. Health Goals and Chronic Conditions:
    - Chronic conditions (hypertension, diabetes, arthritis) are prevalent.
    - Patients seek timely advice to manage their health effectively.
    - Recommendation: The platform should provide personalized health information and reminders for medication adherence.
5. Integrated Medical Records and Referrals:
    - Dr. Nomsa requires access to patient history, lab results, and prescriptions.
    - Efficient referrals to specialists are crucial.
    - Recommendation: The solution should integrate medical records and facilitate seamless communication between healthcare providers.

SECTION C: Generating Solutions

Step 1: Meeting Date, Time, & Location

Please list when and where your team meeting took place.

Step 1: Meeting Date, Time, & Location

A. Date: 02/05/2024
B. Time: 18:00 GMT
C. Location: Online via Discord

Step 2: Meeting Attendees

Please list who attended your team meeting, and their primary role.

Step 2: Meeting Attendees

1. **Hashim Aziz Muhammad:**
    - Role: Project Manager
2. **John Charles:**
    - Role: Product Manager
3. **Hamza Sirai:**
    - Role: UX/UI Designer
4. **Clifford** Tabu:
    - Role: Data Scientist
5. **Simon Sinclair:**
    - Role: UI/UX Designer

6. **Abdelati Baala:**
    - Role: UX Researcher
7. **Paulus Shewamare:**
    - Role: Data Analyst
8. **Amos Amoriba:**
    - Role: UI/UX Designer

Step 3: Bad Idea Brainstorm

It's time to start thinking about solutions to the problem. Use all the information you now have about the problem (from your research last week and the interviews this week) to start thinking of possible solutions. As you have studied in Canvas modules, it's always good to first gather as many ideas as possible. So at this stage, don't hold back, put your divergent thinking hat on, and let the creativity flow to gather as many ideas as possible. As a team, you must generate at least 10 new bad ideas. Remember, the dumber the idea, the better! This is to help you work as a team to be non-critical. Stay in divergent thinking. It helps to say "thank you" after every idea is shared.

Step 3: Brainstormed Ideas

1. HealthBot Companion:
    - Create a friendly AI chatbot that guides patients through symptom assessment.
    - The bot recommends self-care tips or schedules virtual consultations with doctors.
    - Integration with pharmacy ATMs allows prescription pickup.

2. Virtual Waiting Rooms:
    - Patients enter a virtual waiting room before their consultation.
    - They receive real-time updates on their position in the queue.
    - Doctors are notified when patients are ready.
3. Smart Prescription Dispensing:
    - Pharmacy ATMs dispense medications based on e-prescriptions.
    - Patients scan a QR code from their app to collect their meds.
    - Integration ensures accuracy and reduces waiting times.
4. Community Health Forums:
    - Create an online community where patients share health experiences.
    - Doctors participate in Q&A sessions or host webinars.
    - Pharmacists provide medication-related advice.
5. Health Concierge Service:
    - Patients receive personalized health reminders via SMS or app notifications.
    - Reminders include medication schedules, exercise routines, and preventive measures.
    - Integration with pharmacy ATMs ensures timely refills.
6. Doctor Ratings and Reviews:
    - Patients rate their telehealth consultations.
    - Reviews help others choose the right doctor.
    - Integration with pharmacy ATMs provides feedback on medication availability.
7. Emergency Tele-Triage:
    - Patients with urgent symptoms connect to a triage nurse via video call.

- The nurse assesses severity and recommends appropriate actions.
- Integration with pharmacy ATMs ensures emergency medication availability.

8. Health Gamification:
    - Patients earn points for healthy behaviors (e.g., exercise, medication adherence).
    - Points unlock discounts at pharmacy ATMs.
    - Integration motivates patients to stay on track.
9. Local Health Maps:
    - Patients find nearby clinics, pharmacies, and ATMs on an interactive map.
    - Real-time updates on wait times and available services.
    - Integration ensures accurate location data.
10. Telehealth for Chronic Disease Management:
    - Patients with chronic conditions receive personalized care plans.
    - Doctors monitor progress remotely.
    - Integration with pharmacy ATMs ensures timely medication refills.

Step 4: Team's Final Selected Solution Idea

Your next task is to narrow your choices, which will put you in a convergent thinking mindset. You should have some discussion and debate about this, and try to reach a consensus on a final solution to your problem that your team is going to consider working on for the rest of Month 2. These ideas can be totally new, or they can be the same or variations from ideas you've already come up with. Remember that they should involve some sort of technology (either a piece of software like an app or algorithm, or a physical device such as a robotic fish or machine that scans your DNA). You will not

have to build the solution out. But you will have to create some type of basic prototype (if it is a device) or a set of wireframes (if it is an app/software). You will not have to actually create the technology or code.

You must figure out a fair way to reach a consensus with your group, including a discussion where everyone's voice can be heard.

Step 4: Team's Final Selected Solution Idea

1. Telehealth Web and Mobile App (React and React Native):
    - Virtual Consultations:
        - Patients can log in via mobile or web.
        - Schedule video or chat consultations with available doctors.
        - Doctors provide medical advice, prescriptions, and referrals.
    - User-Friendly Interface:
        - Intuitive design for easy navigation.
        - Clear instructions for patients and doctors.
    - Integrated Medical Records:
        - Secure storage of patient history, lab results, and prescriptions.
        - Doctors access relevant information during consultations.
2. Pharmacy ATM Integration:
    - Automated Prescription Dispensing:
        - Pharmacy ATMs dispense prescribed medications.
        - Patients receive medication directly from the ATM.
    - Real-Time Communication:
        - Doctors send e-prescriptions to the nearest pharmacy ATM.
        - Pharmacists load the prescribed medications into the ATM.
3. Community Engagement and Awareness:

- Health Tips and Reminders:
  - Push notifications for medication schedules.
  - Health awareness campaigns via the app.
- Local Language Support:
  - Content available in native languages (e.g., isiZulu, isiXhosa).

SECTION D: Product Planning

Step 1: Product Description

You learnt about product planning and product descriptions in Weeks 4 and 5. Now it's time to apply that learning to create these descriptions to plan for your solution. In the space below, describe the solutions that you're building, in as much detail as possible. Ask yourself the following questions:

- What does the ideal solution look like? Will it be an app or a physical item or a software service? What will it look like aesthetically?
- How the ideal solution will function, and how will users interact with it? Will the users create profiles? Will there be a dashboard (and what will it show)? Will there be other forms of screens or interactions that users will perform? How will users operate the product?
- What will be the features of the solution? How will you define and describe these features and how will users access these features on the app or physical product?

Step 1: Product Description

Ideal Solution Overview:

Our ideal solution is a comprehensive telehealth platform that seamlessly connects patients, doctors, and pharmacy ATMs. It combines web and mobile applications (built using React and React Native) with real-time communication, integrated medical records, and community engagement features.

Aesthetics:

- Clean and Accessible Design:
    - Intuitive user interfaces with large fonts and straightforward buttons.
    - A calming color scheme to promote a sense of well-being.
    - Native language support (e.g., isiZulu, isiXhosa) for a personalized experience.

Functionality and User Interaction:

1. User Profiles:
    - Patients create profiles with basic information (name, age, location).
    - Doctors have professional profiles with specialties and credentials.
2. Virtual Consultations:
    - Patients log in via mobile or web.
    - Schedule video or chat consultations with available doctors.
    - Doctors provide medical advice, prescriptions, and referrals.
3. Integrated Medical Records:
    - Secure storage of patient history, lab results, and prescriptions.
    - Doctors access relevant information during consultations.

- Real-time updates when new records are added.

4. Pharmacy ATM Integration:
    - Automated prescription dispensing:
        - Patients scan QR codes from their app to collect medications.
        - Pharmacy ATMs dispense prescribed meds directly.
    - Real-time communication:
        - Doctors send e-prescriptions to the nearest pharmacy ATM.
        - Pharmacists load medications into the ATM.
5. Community Engagement and Awareness:
    - Health tips and reminders:
        - Push notifications for medication schedules.
        - Regular health awareness campaigns via the app.
    - Local language support:
        - Content available in native languages for wider accessibility.

Features:

1. Secure Authentication and Authorization:
    - User authentication via email or phone number.
    - Role-based access (patient, doctor, pharmacist).
2. Appointment Scheduling and Reminders:
    - Patients book virtual consultations.
    - Reminders for upcoming appointments.
3. Real-Time Video and Chat Consultations:
    - High-quality video calls with doctors.
    - In-app chat for quick queries.
4. Prescription Management:

    - Doctors issue e-prescriptions.
    - Patients receive notifications when prescriptions are ready.
5. Pharmacy ATM Locator:
    - Interactive map showing nearby pharmacy ATMs.
    - Real-time updates on wait times and available services.
6. Health Tips and Education:
    - Push notifications for health tips.
    - Educational content on chronic conditions.
7. Emergency Tele-Triage:
    - Urgent video consultations with triage nurses.
    - Recommendations for immediate care.

How It Solves the Problem:

- Accessibility: Overcomes geographical barriers by providing virtual consultations.
- Efficiency: Streamlines prescription dispensing through pharmacy ATMs.
- Community Impact: Engages patients and promotes health awareness.

Step 2: Product Solution

Before we finalize everything for the week, it's also important to very clearly define how your product is going to solve the problem that you set out to solve. You can do so by answering the following questions:

- What specifics about the product or app contribute to solving the problem?
- How do these specific features contribute to solving the problem?
- How does the product help the people you're creating the solution for?

Step 2: Product Solution

Specifics Contributing to Problem Solving:

1. Telehealth Platform:
    - Enables remote consultations, bridging the gap between patients and doctors.
    - Facilitates timely medical advice for non-serious injuries and chronic conditions.
2. Pharmacy ATM Integration:
    - Ensures efficient prescription dispensing.
    - Reduces waiting times and improves medication access.
3. Community Engagement:
    - Health tips and awareness campaigns foster community well-being.
    - Local language support enhances accessibility.

How It Helps Users:

- Patients:
    - Convenient access to doctors.
    - Timely medication pickup from pharmacy ATMs.
    - Health education and reminders.
- Doctors:
    - Efficient consultations.
    - Access to patient records.
    - Streamlined prescription management.
- Pharmacists:
    - Real-time prescription updates.
    - Improved workflow with e-prescriptions.

Step 3: Reflections (Individual)

Please share your **personal** reflections on your experience with your team so far.

Step 3: Team Process Reflections

Personal Reflections:

I've thoroughly enjoyed collaborating with my team. The diversity of perspectives and skills enriches our discussions.

Team Process Reflections:

1. **What is working well with your team?**
    - Active participation and idea sharing.
    - Respectful communication.
    - Clear focus on the problem.
2. **What is one good thing that happened during your team meeting?**
    - We brainstormed creative ideas and narrowed down our solution.
3. **What is one thing your team could do better in the next meeting?**
    - Define specific roles for each team member.
    - Allocate time for individual contributions.
4. **Concerns or Frustrations:**
    - No major concerns. We're open to feedback and improvement.
5. **Ability to Communicate:**
    - I rate my ability to communicate with the team as a **4** (excellent).
6. **Overall Satisfaction:**
    - I'm highly satisfied with how well our team collaborates (**4**).
7. **Additional Thoughts:**

- Let’s continue building on our strengths and supporting each other! 🌟👥💡