

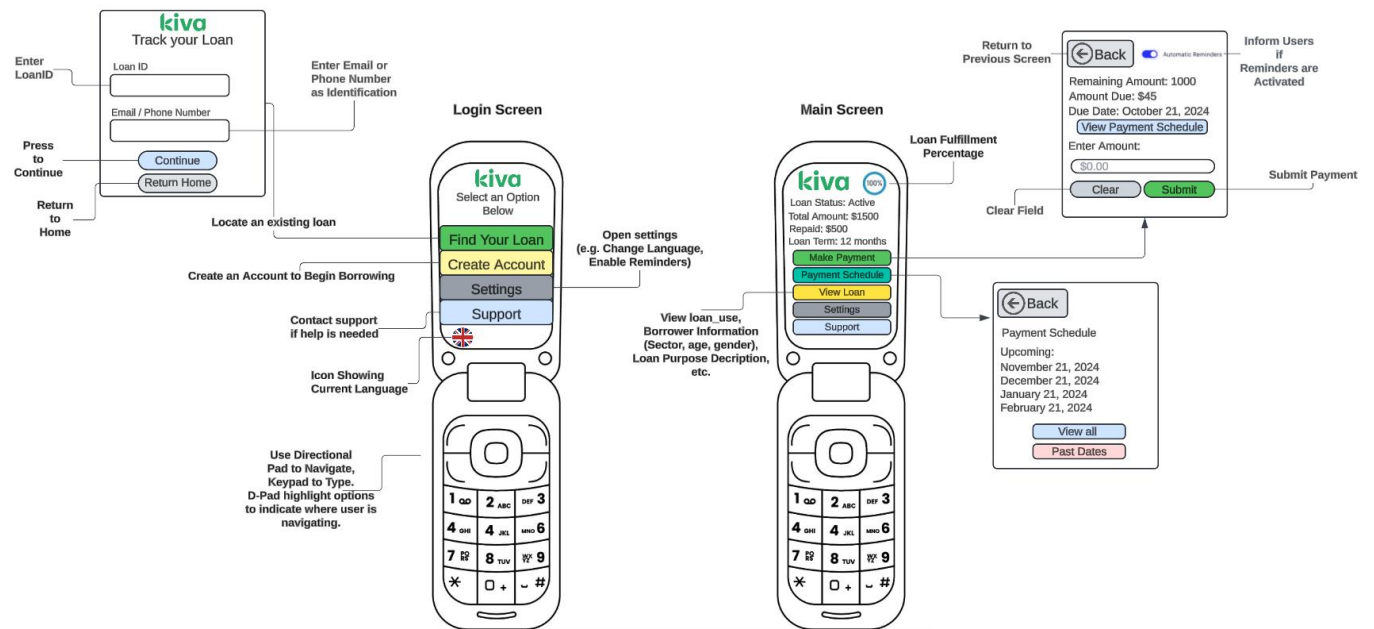
Jordan Mitchell

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Professor Morsy

Project Two

Wireframe



Rationale

1. Purpose and Function of Each Element and Screen:

Each screen of the wireframe was designed with simplicity and usability in mind, especially for the Kiva borrower accessing the system on a flip phone. The Login Screen has straightforward fields for Loan ID and Email/Phone Number, essential for locating a specific loan quickly. My decision to place large, clickable buttons for options like “Continue” and “Return Home” makes navigation intuitive for less tech-savvy users or those using more limited devices. I found it important to include plain, explicit buttons to avoid confusion and prevent overuse of resources due to unnecessary features.

The Main Screen centralizes the most critical functions for borrowers. Options like "Find Your Loan," "Create Account," "Settings," and "Support" are organized in large, color-coded buttons to ensure clarity. Color differentiation (green for active loan features like "Find Your Loan" and blue for support) helps guide users' attention. An icon can be found at the bottom of the screen indicating what language is currently being displayed. In the wireframe I used the English flag as an example (e.g. if the user spoke french they'd see a French flag). Language settings can be found within the settings option, and users can perhaps be prompted for a language before sign-up to prevent initial misunderstandings. Using directional-pad and keypad navigation, which is common on embedded devices, ensures that users are familiar with the input method, reducing difficulty and remaining in line with the typical functions of flip phones. At the top of the screen, a percentage bar can be found that displays the amount of the loan that has been fulfilled, offering a simple and straightforward visual indication immediately. A borrower's loan is also immediately present, allowing them to instantly review the essential information and make the decision-making process more efficient. I did not want users to have to click into another menu if they are already logged in, saving them time and effort.

The Payment Schedule and Submit Payment screens allow borrowers to see upcoming payments, making it easier to keep track of their responsibilities. The large input fields and clear buttons are unambiguous, making it easy to enter payment amounts or navigate the schedule if needed. There is also an indicator at the top to notify users if they have notification reminders enabled, which can be edited through the settings tab. As not all flip phones are capable of push notifications, the ability to utilize SMS text messages reminders is available. Users will be able to alter how frequently they'd like to receive alerts (1 week before, 2 days before, etc.).

2. How the Design Benefits the Borrower:

My wireframe is aimed at borrowers who need quick access to critical information without unnecessary complexity. For example, borrowers can track the loan status, repayment schedule, and outstanding amounts at a glance. The integration of reminders, clearly visible on the payment screen, ensures they won't miss any important deadlines, reducing the risk of defaulting on loans. The wireframe was designed with simplicity and efficiency in mind, as I've seen many users have limited access to technology, limited technical proficiency, or even limited literacy. I wanted the experience to be streamlined so that borrowers don't have to spend extra time learning how to use the app and can focus more effort into fulfilling their purpose. Additionally, as design accommodates for multilingual support with a language toggle, the borrower can interact with the interface in their preferred language. By focusing on these elements, the app allows accessibility and reduces the potential for confusion especially with financial information. By incorporating clear loan statuses, repayment schedules, and remaining amounts, the app reduces confusion, ensuring users understand exactly where they stand with their loans. The inclusion of a language option is helpful for borrowers in regions where English may not be the first language, ensuring they can navigate the app without issue in their preferred language. Furthermore, the simple and straightforward navigation, which can be controlled via the D-pad and keypad, ensures that even users with limited technical experience or older devices can interact with the system without difficulty. I made sure to prioritize integration for access to support in order to provide reassurance that help is available if needed, creating a more user-friendly and supportive environment for users.

3. How the Design Benefits Kiva:

My wireframe supports Kiva's mission of financial inclusion by reducing technical barriers for borrowers in underserved regions who may only have limited access to technology.

By allowing borrowers to track loans and make payments easily, the system enables Kiva's goal of keeping repayment rates high, which in turn strengthens trust between lenders and borrowers. Greater loan performance ultimately improves Kiva's ability to support more users in need. Additionally, the design reduces potential customer service inquiries by making crucial information like repayment schedules and loan status easily accessible. By embedding support options and automating reminders, Kiva can reduce the operational load of providing borrower assistance, allowing their team to focus on broader goals like improving their overall system. Lastly, the app's scalability to multiple languages aligns with Kiva's global reach, supporting its mission to serve borrowers from diverse regions and languages more effectively.

4. Solutions Developed to Adapt to Challenges:

One innovative approach was my inclusion of automatic reminders for upcoming payments, visible on the payment screen. This feature is important for borrowers who may not have access to reliable internet service. Additionally, designing for a flip-phone interface required careful consideration of how to display data efficiently with limited space, leading to the use of large buttons and clear, concise text. Another solution was the use of color-coded sections on the main screen to guide the user's attention to the most important functions. This approach helps borrowers find their way through the app more easily, reducing cognitive overload. My design also incorporates elements of flexibility and convenience for both borrowers and Kiva itself. Borrowers can utilize the system at their own pace, particularly in areas where internet access might be limited or unreliable. The interface supports a simple navigation style with large, colored buttons, which helps ensure that users, tech savvy or not, can effectively operate the application. From Kiva's perspective, the design emphasizes clear communication with borrowers by providing updates on loan statuses and payment schedules in a timely and

transparent manner. These build trust between Kiva and its user-base, encouraging long-term relationships. As a result, Kiva benefits from reduced user error, fewer delays in payments, and higher overall satisfaction among borrowers, which helps maintain their reputation as a trusted platform.

5. Prior Research:

The rationale behind my design is heavily influenced by prior research into the needs of Kiva's users, which I was able to gather directly from Kiva's database and borrower stories. A significant portion of borrowers are located in rural, impoverished areas where access to advanced technology is limited. This means that many borrowers are more likely to use simple, reliable devices like flip phones, rather than smartphones with complex interfaces. As a result, I designed the wireframe with this context in mind, ensuring that the interface is highly accessible, with a large, simple design and text that is easy to read. Furthermore, when reading borrower stories, I found that many borrowers may have more limited reading abilities, so the interface avoids overloading the user with too much information at once, instead breaking it down into digestible sections that are easy to understand. The ability to provide reminders via SMS, rather than requiring a consistent internet connection, reflects my understanding of the possible technological constraints faced by many borrowers. By focusing on usability for people with limited technological resources, this design ensures that users can stay informed about their loans and repayments without needing high-end devices or constant access to the internet. Kiva's database emphasized the importance of loan tracking and repayment management, which led to the inclusion of features like the "Make Payment" button and the "Payment Schedule" screen. By allowing users to track loan status and make payments directly from their devices, the design helps them manage their finances more effectively without having to account for things like

travel to a specific location. With these considerations in place, I look to ensure that borrowers in resource-lacking areas can still use and interact with the app while meeting Kiva's goal of making microfinance available to those who need it most.

Recommendations for Adapting the Design for a Cloud-Based System

1. Aligning with Kiva's Business Vision and Mission:

To align this design with Kiva's mission, which is focusing on eradicating poverty through microfinance, the cloud-based system for lenders should continue to emphasize transparency and easy access to real-time data on loans. Lenders need access to detailed borrower profiles, loan statuses, and repayment histories to make well-informed lending decisions. Kiva's mission is to connect lenders with borrowers efficiently, so the interface should allow lenders to explore multiple borrower profiles, view borrower impact stories, and analyze loan repayment data all in one homogeneous platform. As a result, lenders will be empowered to better understand the people they are helping and allow them to reinvest funds into new loans as previous loans are repaid.

2. Communication Between Application Components:

Utilizing the cloud will require smooth communication between different components. Lenders should be able to view borrower information and loan status in real-time, meaning the system needs to be synced constantly with Kiva's database. This would include live loan status updates, automatic loan repayment tracking, and an easily navigable dashboard which displays the most important data at a glance. Proper communication between components is essential to

making sure that lenders can view the latest information. For example, a lender may want to compare the repayment progress of multiple loans, which would require updates between the borrower profiles and the loan data repositories.

3. Varied Goals of Lenders:

Lenders on Kiva likely have diverse goals. Some may focus on funding loans in specific sectors, such as agriculture or retail, while others may target loans that have an impact on gender equality, education, or environmental protection. Lenders can potentially be passionate in multiple areas. The design should accommodate this, offering robust filters, allowing lenders the flexibility to sort loans by fields like sector, country, gender of the borrower, and repayment schedule. Additionally, lenders may wish to view metrics on the social impacts of their loans, meaning the system should possibly provide data on how their funding is making a difference in the communities they loan to, which continues to align with Kiva's social mission.

4. Optimizing Communication Among Components:

A cloud system for lenders should feature dashboards that equip user navigation between various components. A lender might want to check the status of a previous loan and, with one click, proceed to locate and fund a new loan. By allowing seamless communication between Loan History and Available Loans components, the system can streamline the lending process. Inclusion of email or SMS notifications is another way to keep lenders engaged by alerting them when a loan has become fully funded or when a borrower has made a payment, prompting and encouraging them to reinvest further.

5. Next Steps for Development:

To implement this, I would need to start by outlining how cloud infrastructure could be optimized to support real-time updates and large-scale data management. The system would need to scale with the number of lenders and borrowers while maintaining fast response times. By incorporating API calls that let lenders track the performance of their loans and access borrower stories, the system can maintain efficiency and transparency. This would involve transitioning data from embedded systems to cloud-based databases, ensuring that the cloud environment can support any scalability needs. With this structure, the design for lenders can evolve into a dynamic, cloud-based system that supports usability, transparency, and scalability for Kiva's lender base.

On the other hand, a major consideration is the cost of operation. Unlike embedded systems, clouds require continuous costs for data storage, processing power, and network bandwidth. Kiva, being a non-profit organization, will need to carefully assess these costs to ensure they remain within their financial capabilities and mission. Providers like Amazon Web Services (AWS), Google Cloud, and Microsoft Azure charge based on storage, computation, and networking needs, which can scale significantly as more data is processed and more users access the system. Cost factors to consider are:

- Costs per user interaction, such as accessing loan data, filtering opportunities, and tracking repayments, should be optimized to avoid unnecessary expenses. Implementing automated scaling for cloud infrastructure can help reduce costs by allocating resources based on current system load. This way, the system will not overuse resources during periods of low traffic and can scale up during peak times.
- Data security and regulatory compliance Kiva must adhere to when handling financial information. Cloud providers offer robust security, but additional costs may arise if Kiva

wishes to implement custom encryption, auditing, or data redundancy measures to comply with specific financial regulations in certain countries.

- API usage in cloud systems invites costs. Each time a user, whether lender or borrower, interacts with the system, APIs retrieve or store data in the cloud. If not properly optimized, frequent API requests can inflate operational costs. Therefore, it is crucial to implement caching mechanisms and limit requests where possible, to ensure a cost-effective approach while maintaining efficient system performance.

Steps toward implementation should include planning around these key cost drivers, ensuring the system is scalable, cost-efficient, and secure. In this phase, I would also focus on transitioning data from the embedded system to cloud databases, setting up the architecture to accommodate a growing user base while minimizing operational costs.

Conclusion

In this project, I have carefully planned out a system that meets the needs of Kiva's userbase by prioritizing accessibility, ease of use, and scalability. The wireframe design for borrowers, built with simplicity in mind, allows users on limited devices to effectively manage loans and contact support if needed. Using large, clear buttons and different types of reminders helps confirm that borrowers, especially in underrepresented areas, can stay engaged with their responsibilities without the need for constant internet access. On the lender side, the move to a cloud-based system can significantly enhance Kiva's ability to manage and scale their operations. Lenders will benefit from features that promote loan management and transparency. Cost considerations must be factored into this design to allow for sustainability while staying true to Kiva's goal of financial inclusion. With a thoughtful and user-centric design, Kiva can

continue its mission of reducing poverty, while ensuring all users have access to a reliable system. My approach makes sure that Kiva remains a leader in microfinance and continues empowering communities globally. I believe the design is well-positioned to drive engagement and trust between borrowers and lenders, strengthening Kiva's platform for future growth and success.