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Milestone: Data Priorities

Evaluate Data Requirements for Borrowers

1. What data does the borrower want to access locally?
    - Borrowers are likely to be primarily interested in tracking their loan status, loan requests, and payment due dates.
    - For example: A borrower needs to keep track of loan repayment schedules, monitor how much of the loan is funded, and see any loan details.
2. What data fields from the CSV file will be most applicable?
    - From loans.csv, the most relevant fields to borrower needs would be:
        - *LOAN_ID:* Unique ID to track specific loan
        - *LOAN_NAME:* The name/identifier of the loan
        - *FUNDED_AMOUNT:* Amount that has been funded towards the loan.
        - *REPAYMENT_INTERVAL:* Indicates when the borrower needs to make payments
        - *DISTRIBUTION_MODEL:* Indicates how the loan will be disbursed (for example a lending partner)
        - *BORROWER_GENDERS and BORROWER_NAMES:* These fields might be useful for confirming which loan belongs to the specific borrower.
        - DESCRIPTION and DESCRIPTION_TRANSLATED: In case borrowers wish to review the purpose of their loan and the related description for clarification.
3. What type of interface is possible with the limited resources of an embedded system?

- An embedded system, such as a flip phone, may be more limited in resources and will need a simplified interface.
- Presentation of information should focus on essential data like loan status, amount funded, repayment schedules, and loan descriptions.
- Text-based navigation with minimal images or graphics would work best to ensure compatibility with low-resource devices.

4. Who will the different users of the system be? What will each user need to be able to do?
    - Primary Users: Mostly borrowers with limited tech access (ex: flip phones)
        - Requirements: Ability to track payment progress, payment dates, and possibly request loans or review loan status.
    - Secondary Users: Secondary Users: Customer support or loan officers who may need to validate and verify borrower statuses. These are employees who work with customers.
        - Requirements: Ability to provide assistance based on data like loan descriptions, funded amounts, and payment intervals.
5. What are the design requirements for the system?
    - The system should be simple, text-based, and easy to navigate with an embedded device. Robust enough to handle large number of users and data.
    - Clear labeling and minimal scrolling to accommodate smaller screens/lack of touchscreen.
    - Essential features like a dashboard summarizing the borrower's loan, paid amount, and payment schedule.

Assess Specific Borrower Stories to Refine Their Data Needs

- Borrower 1: Cynthia from Kenya
    - Story: Cynthia is a smallholder farmer in Kenya who is seeking a loan of $325 to purchase modern farm equipment like certified seeds and organic fertilizers to improve her farm's output.
    - Refined Data Needs: Cynthia needs to follow the progress of her loan and the disbursement timeline to make timely purchases for the planting season. The fields DISBURSE_TIME, FUNDED_AMOUNT, and STATUS would be most important for Cynthia to follow and purchase necessary supplies.
- Borrower 2: Manilyn from the Philippines
    - Story: Manilyn is a food vendor who has been selling snacks like banana cue for a year. She's looking for a loan of $275 to boost her capital by purchasing bananas, oil, and sugar.
    - Refined Data Needs: Manilyn would need access to the status of her loan funding and disbursement so she can replenish her stock efficiently. The fields STATUS, FUNDED_AMOUNT, and DISBURSE_TIME are essential for tracking the timing of her loan and managing her stock.
- Borrower 3: Kaesar from Palestine
    - Story: Kaesar is a 49-year-old refugee who is seeking a $4,000 loan to cover surgery costs. He works in the private sector but struggles to meet his family's basic needs, so this loan is essential to his healthcare.
    - Refined Data Needs: Kaesar needs access to loan progress and disbursement details so he can plan for the surgery. Important fields for him are DISBURSE_TIME, STATUS, and FUNDED_AMOUNT.

- Borrower 4: Melissa 3 Group from Guatemala
    - Story: The Melissa 3 Group is composed of women from the ethnic group Maya Ixil. They are seeking a loan of $5,575 to purchase threads of different colors to grow their weaving business.
    - Refined Data Needs: The group will need to closely follow the progress of their loan funding to purchase supplies and expand their operation. FUNDED_AMOUNT, STATUS, and DISBURSE_TIME are key fields for the group to keep an eye on.
- Borrower 5: Nour Al Huda from Syria
    - Story: Nour Al Huda, a 26-year-old Syrian refugee and mother of three, now living in Jordan. She is seeking a loan of $575 to buy clothing for her home-based business. Although she's faced many hardships, she's optimistic about expanding her business.
    - Refined Data Needs: Nour will need information on loan funding and disbursement to ensure she can purchase the clothing she needs for expansion. FUNDED_AMOUNT, DISBURSE_TIME, and STATUS are the vital fields for Nour to track.

Additional data fields from the CSV files that would be most applicable to these borrower stories include *loan_amount, activity, sector_name, country_name, borrower_genders, repayment_interval, and loan_use*. This will provide essential information about the loan, such as the loan amount, the nature of the activity or business it supports, and the sector in which the borrower operates. For instance, activity helps define whether the loan supports farming, retail, or healthcare needs, while country ensures region-specific challenges and opportunities are

considered. Borrower_genders is significant, specifically for programs that prioritize supporting female entrepreneurs, just like Cynthia, Manilyn, and Nour. Lastly, repayment_interval and use offer a look into the frequency of repayments and how the funds will be applied, which is vital for borrowers who need to track their payment schedules and planned spending.

Based on these stories, the design requirements for the system should prioritize simplicity and accessibility. Given that many borrowers may have limited access to technology such as flip phones, the interface should be intuitive, focusing on key functions like tracking loan progress, viewing payment schedules, and accessing loan details, ensuring they're clear and straightforward. Essential features like alerts (text & push notification if possible) for upcoming repayments or disbursements should also be integrated to help borrowers like Kaesar or the Melissa 3 Group, who have critical time-sensitive needs. In addition, the design should allow multiple users, since borrowers might share information with family members or mentors who assist in managing the loan. The interface should also consider accessibility features, such as supporting multiple languages, for borrowers like Nour Al Huda, a refugee adapting to a new country, and Manilyn from the Philippines. This will empower users to utilize the system in a way that meets their individual needs, regardless of their location or technical ability.

In essence, these stories highlight the necessity of designing a system that caters to individual circumstances while remaining functional and accessible. By prioritizing these, I can create a user-friendly platform that empowers users, helping them manage their loans effectively to meet their goals.

Recommend Borrower Data Priorities for UI/UX Development

Essential Data to Display

Loan Information

- *loan_amount*: The total amount of the loan that has been approved for the borrower.
- *funded_amount*: The current amount that has been funded. This is vital for borrowers to track how much of their loan has been funded and how close they are to receiving the full amount.
- *status*: The status of the loan (active, funded, or closed). This helps the borrower understand if their loan is still being processed or if it's complete.
- *Loan_use*: A short description of what the loan is for, to remind borrowers of the purpose of their loan and how the funds will be used.
- *Sector_name*: Display the sector (agriculture, retail, etc.) to provide context on the borrower's business and activity.

Repayment Details

- *repayment_interval*: This is how frequently the borrowers must make payments (weekly, monthly). This is essential for properly managing repayment.
- loan_use: A summary of how the borrower intends to use the loan. This is for transparency and a reminder of the purpose behind the loan, especially when managing multiple goals.

Borrower Information

- borrower_genders: This field shows gender information about the borrowers, which can help Kiva track its impact on specific demographics like female entrepreneurs.

- borrower_names: this displays the name of the borrowers, which is helpful to keep track of cases, as well as indicate who the loan is for.
- country_name: Display the borrower's country, providing additional geographic context for both the borrower and Kiva.

Display Priorities & Features

- Simplicity & Accessiblity: The interface should be simple and intuitive, with a focus on clear presentation of the most important data (loan progress, repayment schedules). Given that many Kiva borrowers may only have access to low-tech mobile devices or could be in remote areas, such as farmers in rural Kenya and Guatemala, the app should work seamlessly even on basic mobile devices.
- Real-Time Loan Tracking: Borrowers like Manilyn and Nour Al Huda will benefit from real-time tracking via funded_amount. Features like a dynamic progress bar that updates as more of the loan is funded will help them visually interpret when they can expect the full loan amount to be available. This is especially helpful for borrowers like the Melissa 3, of whom many cannot read.
- Repayment Alerts: Alerts based on repayment_interval are crucial for borrowers like Kaesar who need to stay on top of payment deadlines. Notifications or SMS alerts should be integrated, reminding them of upcoming payments.
- Mobile Optimization: The design should be optimized for mobile phones, particularly given the global nature of Kiva's borrowers. Features such as large buttons, simple navigation, and limited scrolling are key to maintaining simplicity and efficiency.

Summary of Key Data for Borrower UX

- High Priority:

  loan_amount – to see the amount of the total loan

  funded_amount – to track how much of the loan is funded in real time

  loan_use – keep borrower aligned with original goals

  repayment_interval – for managing payments

- Supplementary:

  sector_name – display the borrower's field

  borrower_genders – demographic information

  borrower_names – name of the borrower

  country_name – country the borrower hails from

Evaluate the Data Requirements for Lenders

1. *What data does the lender want to access?*

Lenders on Kiva need specific data to help them make informed decisions about lending. The priorities for lenders should focus on understanding loan requests, tracking their investments, and managing repayments.

2. *What data fields from the CSV file will be most applicable to the lender's needs?*

Here are the most important fields from would be useful for lenders:

Loan and Borrower Information:

- loan_amount: The total loan amount requested by the borrower. Lenders need this information to assess the scale of the loan and determine the amount they are willing to contribute.
- loan_use: A brief description of what the loan will be used for. This field helps lenders understand the borrower's goals and how their contribution will make an impact.
- borrower_genders: This field indicates whether the borrower is male or female, which can be relevant to lenders looking to support women or other specific demographics.
- country_name: Indicates the country in which the borrower resides. This is essential for lenders who may have regional preferences or want to pick their investments based on geographic factors.
- sector_name: Shows the field in which the borrower is operating like education or agriculture. Lenders may prefer to invest in specific sectors based on their expertise or areas of interest.

Repayment Information:

- repayment_interval: Displays the frequency of repayments. Lenders need to know how often they can expect to receive repayments from borrowers.

Loan and Funding Status:

- funded_amount: Shows how much of the loan has already been funded. Lenders may use this to identify loans that are close to being fully funded and choose to help complete the funding.

- Status: Indicates if the loan is active, fully funded, or in being repaid. This is useful for lenders to track their active investments and monitor the progress of repayment.

3. What type of interface is possible with the available resources?

To create a useful and efficient user experience for lenders, the following UI/UX design elements should be prioritized:

- Loan Overview Dashboard:
    - Lenders should be able to view all active loan requests on a dashboard that displays key data like loan_amount, loan_use, sector_name, and country_name. This allows lenders to quickly assess loan opportunities and filter them based on their preferences. For example, region, sector, borrower demographics.
- Loan Details Page:
    - Each loan should have a detailed page that includes loan_amount, loan_use, funded_amount, and repayment_interval. Lenders can review this info before deciding to invest, and those who want to support certain types of businesses or sectors like retail or women-led businesses will be able to make informed decisions.
- Repayment Tracking:
    - For active loans, lenders should be able to access a repayment schedule based on repayment_interval and overall loan term. The system should notify lenders when repayments are made, allowing them to track their return on investment in real time.

4. Who will the different users of the system be? What will each user need to be able to do?

- Lenders: Individuals or organizations funding loans. They will need to view loan requests, assess key factors like loan amount and loan use, as well as track the progress of their funded loans.

- Kiva Admins: Staff managing the platform. They will oversee both lender and borrower activities and generate reports on platform performance.

- (Maybe) Third-Party Donors/Partners: Organizations contributing large-scale funding. They will require data on performance in sectors and demographic impacts.

5. What are the design requirements for the system?

- Simplicity and Clarity: The lender interface should prioritize simplicity, allowing users to quickly access key data like loan_amount, funded_amount, and loan_use.

- Mobile Optimization: Since many users may utilize Kiva through mobile devices, the platform should be mobile-friendly with easy navigation and minimal data load.

- Notifications: Lenders should receive alerts about repayments and loan progress, ensuring they stay informed about their investments.

- Filtering and Sorting: Lenders should be able to filter loans based on specific criteria like sector, gender, or region to find opportunities aligned with their preferences.

In evaluating the data and design requirements for both borrowers and lenders on the Kiva platform, it’s clear that the app must prioritize simplicity and accessibility while still offering detailed, relevant information to each user type. Borrowers need a system that helps them track loan progress and repayment schedules, while lenders require access to key details

like loan amounts, borrower demographics, and repayment intervals. The user interface should be mobile-friendly and easy to navigate, with filtering options that allow lenders to find loan opportunities that align with their interests. Essential fields like loan_amount, funded_amount, and loan_use serve as the foundation for both sides of the system, promoting transparency and informed decision-making. By emphasizing clear, concise presentation and ensuring that all users can utilize the platform with ease, Kiva can empower underprivileged and impoverished communities while sustaining an efficient and scalable cloud-based system. Thorough consideration of both borrower and lender needs helps outline the project which aligns with Kiva's mission of increasing financial accessibility and nurturing global economic development.