

Project Milestone 1: User Research and Requirements

Group 7

Comp 3020 A01

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Part (a): Identify your project idea

Our group has decided on the project idea of keeping track of to whom you owe money, as well as who owes you money. This web application should help users solve this issue by tracking those who have paid them back and would send friendly reminders to those who may have forgotten to pay. To encourage and simplify payment, there would be an option to link bank accounts to the user's account. Then depending on how the debt was paid, different ways would be provided for both parties to verify the payment. We believe this application would benefit all users, easing the headache of figuring out and remembering those who had paid versus those who has not, and making debt payment a breeze.

We expect the system to be used by all types of people. From roommates paying rent to friends sharing a meal to family road trips, the combination of users and applications of this system is endless.

Part (b): Identify stakeholders

Primary Stakeholders- Frequent Hands on Users

Our design could be useful to many different groups of people. To ensure that it stays accessible to everyone, people can have a varying level of competency with technology. To use our technology they will not need any special training. They may have to learn about some feature when they first use it, but they should not have to continue learning after the initial use.

Some examples of primary stakeholders are: Persons with roommates, persons involved in group social outings, persons involved in group travel situations, students.

Our primary stakeholders will most likely be younger in age. This is in part for several reasons. Younger people are more likely to adopt new technology and use technology more frequently. They also have more trust in technology, when it comes to accessing their money. This means that they are more likely to fully benefit from the technology, and therefore be more satisfied. Younger people, in particularly students are often short on money, and could gain from using our technology.

Secondary Stakeholders-Occasional Users

Our secondary stakeholders would be many of the same groups as our primary stakeholders. These users would not be in the situations to use our technology as often. This

may also include users who only use the applications for one situation, such as only using it for keeping track of rent costs, as they would use it more infrequently.

Tertiary Stakeholders- Affected by Introduction of System

Landlords- Landlords could benefit from the introduction of our technology. If there was several parties under one lease, one could pay the landlord, and the others could pay them back. With the introduction of this technology, it would provide an organized way to keep track of who paid who. This could help to ensure that rent would be paid on time.

Business Owners- Any owner in the service industry could see the effects. This includes restaurant owners, movie theatres and concert venues. It is sometimes more efficient for a single person to pay for a group. If users find an easy way for this to occur, then they are more likely to engage in outings that require so. This would positively affect the business owners.

Part (c): User research

Justification

The IDEO methods we chose to research include surveys and questionnaires, the five whys, and character profiles.

The survey seemed to be an obvious choice, since it allows for quick and organized data collection. Since we came up with our own idea, we needed to gather insight into people's brains on what features they would like to see, as well as get an understanding of different perspectives on lending and owing money. We chose an online survey because it's easy to create and send through email to assure that we get a variety of responses in a short amount of time. The website also organizes the gathered data into a meaningful chart so that we can see at a glance what we need to know.

Another method we picked was the five whys. This process seemed wise to choose along with our survey since the survey only allows people to pick predefined answers, whereas asking "why" to their answers forces more thoughtful responses. We thought it would be helpful to dig a little deeper into the thoughts behind yes/no answers since people have a lot of underlying emotions about lending and paying back money.

The last method we chose is character profiles. This will be extremely useful in figuring out the typical person who would be using our program, and understand what they would expect from it. It will also help us gain insight into other demographic groups, since our project group is made up of students and therefore we have a very narrow and biased view on debt. A profile will also allow us to use our imaginations and think of situations that are common, as well as others that may be forgotten about but are still important.

Summary

The majority of the 30 participants in the survey were in the age range of 20-39, with the others mainly 19 and younger with a small percentage over 40. We found that the main situations that resulted in people owing/being owed money were sit down meals, family related issues, and

groceries, which was expected. Another interesting response was the amount of no's received on the question of "Would you be comfortable linking the app with a banking app?". This could be a potential issue if we wanted our app to have e-transfer capability, however it wouldn't need to be a forced feature; people could choose whether or not they wanted to link their bank accounts.

The five whys gave some insight on how people feel about the act of owing money. When asked, most people replied that they felt uncomfortable and awkward when asking others to pay them back because it feels like they're nagging, or they believe the other person may not have the money. Our app could help with the awkwardness of asking for money back, because there would be in-app reminders and a page tracking who owes who, which takes the confrontation out of the equation. It was extremely helpful to get these perspectives from potential users after the survey, because you can't hear the reasons behind what they decided to answer in an online survey. We also realized that we need to allow ways to incorporate social culture into the app so that people feel more comfortable using it.

The character profiles allowed us to put ourselves into our user's shoes, and think about what the most common applications of the program would be. By putting our observation skills into use, this method helped us realize the variety of people who could potentially be assisted by our app, and how much easier lending money would be. Our results showed that users find paying people back to be time-consuming, and that they don't like the confrontation of asking people to pay them back.

Conclusion: Our survey method complemented the five whys method because we were able to collect data from a wide variety of subjects through the survey, and then collect more detailed results from the five whys. The character profiles relate by getting a more detailed perspective on the usability of the technology, rather than just general questions about debt. It added personality, and allowed us to make a connection with our possible users.

Part (d): Requirements

1. Functional

Must have: A method for the user to see who they owe money and who owes them money

Justification: 100% of survey respondents have either had someone owe them money or have owed someone money at some point in their life – 10% that day and about 45% within the last week. Therefore, it's important that people have an easy way of keeping track of their debt.

Should have: Drop-down menu with possible situations for why someone owes someone money

Justification: All of our example situations were selected by at least 4 survey respondents; evidently, these are situations that often lead to money being owed.

Could have: Notification system to let the user know that they should pay someone back, or so they can send someone else a notification to pay them back

Justification: In our character profiles, Person A said that he often forgets to pay his roommate back until he asks, and Person C said that he wants an application to remind his roommate to pay him, because he dislikes confrontation.

2. Data

Must have: Detailed, alterable list of people the user owes money to and who owes the user money

Justification: Most users either paid someone back or had someone pay them back after just a few days. It is crucial that it is easy to change the list based on if someone pays someone back, and to add new debt.

Should have: Priority list that the user can alter, based on what money should be paid sooner

Justification: Survey results showed three respondents have either owed someone money or had someone owe them money for over a year. They probably want this money back.

Could have: Access to user's banking to see if they have available funds to pay people back.

Justification: In our character profiles, Person A found paying people back to be time-consuming. This would be more efficient.

3. Environmental/Context of Use

Must Have: Quick and easy use because the user may be in a rush trying to decide who should pay the bill

Justification: 10% of survey respondents either owed someone money or had someone owe them money that day and about 45% within the last week. The typical user therefore would use this app as a quick way to keep track of debt. 37% of respondents said the money owed was between \$20-99, while only 3.45% had huge debt over \$1000. This app would not be primarily used for large amounts of debt.

Should Have: Friendly atmosphere because debt could be a tense social situation

Justification: Two of our respondents for our five whys method said that they feel awkward asking people to pay them back, so the app should make this as friendly as possible.

Could Have: Receipt scanning option

Justification: For Person C in our character profiles, this would be helpful so that he can split the grocery receipt with his roommate. It would also be beneficial for Person B when splitting the restaurant bill with her friends.

4. User Characteristics

Must Have: Accessible for users with any level of computer knowledge

Justification: 100% of survey respondents have either had someone owe them money or have owed someone money at some point in their life; therefore, keeping track of debt is justifiably important to any person. This app's users could have a wide variety of computer knowledge.

Should Have: Accessible for users of any age

Justification: Survey respondents were a variety of ages, and our character profiles describe possible users of different ages.

Could Have: Advanced settings for users with higher levels of computer knowledge

Justification: 84% of our survey respondents were 39 or younger, and would likely then have more advanced computer skills than older users. Subject L in our five whys method said that she has intermediate computer knowledge, and Subject D is an electrical engineer. Users with more skills would likely want to apply their knowledge and use more advanced settings to do different things with the app.

5. Usability

Must Have: Easy to learn

Justification: The app should not be overly complex, and should not have an intense learning curve. From our five whys, we found that our users have a variety of levels of computer knowledge.

Should Have: Safety with the link between a user's banking app and this app

Justification: 60% of survey respondents said they would not be comfortable linking an app with their banking app. For the 40% who would be, they would certainly be concerned with security. Subject S in five whys said that they would feel uncomfortable linking their banking app with our app if it's trustworthy and secure.

Could Have: Memorability for advanced options

Justification: If the second version does have more advanced options for users with more computer knowledge, we would need these settings to be easy to remember so the user does not have to relearn them each time.

Part (e): Scenarios

Scenario 1: Primary Stakeholders

Katie, Beth and Dane (all aged 22) have decided that they would like to go to the movies tonight. They realize the theatre the movie is playing in requires them to pick their seats ahead of time. To ensure that they can all sit together Katie purchases three tickets prior to the movie. When Katie gets the receipt she enters the information into her "debt app". She uses the drop down menu to select the reason for the expense. She then sends out a notification to Beth, and Dane, stating the amount the tickets cost. When the three arrive at the theatre, Beth pays Katie back in cash. Katie, then quickly deletes Beth from the list of people who owe her money. Dane doesn't have cash with him but assures Katie that he will send her an e-transfer very soon. Katie feels comfortable not pressing Dane harder for the money because she knows she has an easy way to remind him in the future.

Scenario 2: Secondary Stakeholders

Josh(30) , Jose(35) , Kevin(27) and Roberto(21) are roommates. Jose's name is the only one on the lease. Jose usually pays the entire rent and the others will then owe him money. The four of them lead busy lives, and are often travelling for work. Because of this, Josh, Kevin and Roberto, sometimes forget to pay Jose back. Jose recommends they try a new system using a "debt app". Now when Jose pays for rent he opens the app and selects the others' accounts. He then adds the expenses to their accounts. Even though Josh is out of town at the time, he gets

a reminder that he needs to pay Jose. Roberto has connected his banking app to the “debt app” so he is able to pay Jose back almost immediately, and he is removed from Jose’s list of debtors. Kevin hasn’t paid Jose back from last month so the app reflects this with a priority of what debts he needs to pay first. Jose feels more comfortable now that he has an easy way to keep track of who owes him money, as he isn’t one for confrontation.

Appendix

Character Profiles:

Person A - Male, 25

This person is a recent university undergrad graduate. He lives in an apartment with his friends and has to pay rent at the beginning of every month. His roommate pays the rent therefore he has to either transfer the money electronically or get cash from an ATM. He describes the experience as “annoying and time consuming” and often forgets to do it until his roommate asks.

Person B - Female, 47

This person is a housewife and her children are attending university. She enjoys spending her free time outside with her friends. Her experience in splitting the bill take place whenever she's out having lunch with them. Since most of the restaurants in her city do not support splitting the bill when using credit/debit cards, she has to carry around extra cash just for this occasion. She believes this interaction could be simplified and made more intelligent.

Person C - Male, 23

This person is a 3rd year university student. He lives with a roommate and together they go to the grocery store every week, sharing everything they buy there. He pays for the groceries and expects his roommate to pay him back as soon as possible although this rarely happens as his roommate is forgetful. He wishes this application could remind his roommate to pay him back as he does not like confrontation.

Five Whys:

Interviewee: Subject L, 17 years old, female, intermediate computer knowledge

Are you comfortable linking an app with your banking app?

Yes.

Why?

I don't have a lot of money.

How do you feel asking someone to lend you money?

Bad.

Why?

Should have my own money. Feel irresponsible.

How do you feel lending money to someone?

Don't mind.

Why?

If they're asking it means they need it

How do you feel asking someone to pay you back?

Awkward.

Why?

They should just pay me back. They probably don't have the money to pay me back so I feel bad.

Do you typically pay people back in a reasonable amount of time?

Yes.

Why/why not?

It's their money, not mine.

Interviewee: Subject D, 24 years old, male, electrical engineer

Are you comfortable linking an app with your banking app?

No.

Why?

The bank app already does everything.

How do you feel asking someone to lend you money?

Embarrassing.

Why?

My friend would have a hard feeling.

How do you feel lending money to someone?

Generous.

Why?

They probably need some money for an emergency.

How do you feel asking someone to pay you back?

No problem.

Why?

Because it's their duty to pay me back.

Do you typically pay people back in a reasonable amount of time?

Yes.

Why/why not?

Because it depends on the amount.

Interviewee: Subject R, 22, Male, Rural Attributes

Are you comfortable linking an app with your banking app?

Yes.

Why?

Nobody writes cheques, everything is online.

How do you feel asking someone to lend you money?

Uncomfortable.

Why?

Well, in some contexts, it's uncomfortable. If you know the person better, it's not so bad.

How do you feel lending money to someone?

Don't mind.

Why?

'Cause I usually lend to people who will pay me back

How do you feel asking someone to pay you back?

Justified.

Why?

'Cause they owe me money.

Do you typically pay people back in a reasonable amount of time?

Yes, except my girlfriend.

Why/why not?

'Cause its the right thing to do.

Interviewee: Subject S, Female, 58 years old, beginner computer knowledge

Are you comfortable linking an app with your banking app? Overall yes, if it's trustworthy

Why? Because in general our technology is quite secure and if the company says it's safe then I normally have no reason to distrust it.

How do you feel asking someone to lend you money? Very uncomfortable.

Why? Because I prefer to be completely independent, and asking for money feels like I've failed.

How do you feel lending money to someone? It depends on how they ask, but if it's a good friend I'm happy to do it.

Why? I know I'll see them again, and if it's a small amount it's sometimes ok if I don't get the money back.

How do you feel asking someone to pay you back? Awkward

Why? Because I feel like I'm being demanding, and if the person is having a hard time with money then I'm assuming the other person will feel more uncomfortable owing me money.

Do you typically pay people back in a reasonable amount of time? I think so.

Why/why not? It's uncomfortable and in order to show that I've appreciated being able to borrow the money, I need to pay it back quickly or it feels like I've taken them for granted. The longer I take, the less likely it is that I'll remember to pay them back.

Survey Results:



