
MITX: 21W.789X BUILDING MOBILE EXPERIENCES
Assignment: Usability Test

Master Card Credit

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INTRODUCTION

The application enables a user to carry one credit card instead of many. The company would require issuing a unique card number to the customer, which maps all his general card numbers. It uses a mobile application, to make the choice of card from which the transaction is to be carried out.

The application is also capable of remembering an awful lot of details regarding all the credit/debit cards of a user. Like, Card Number, Pin, Card Network, CVV, Expiration Date, Current Balance and a log of all the transactions, in a secure way.

APPLICATION FLOWS

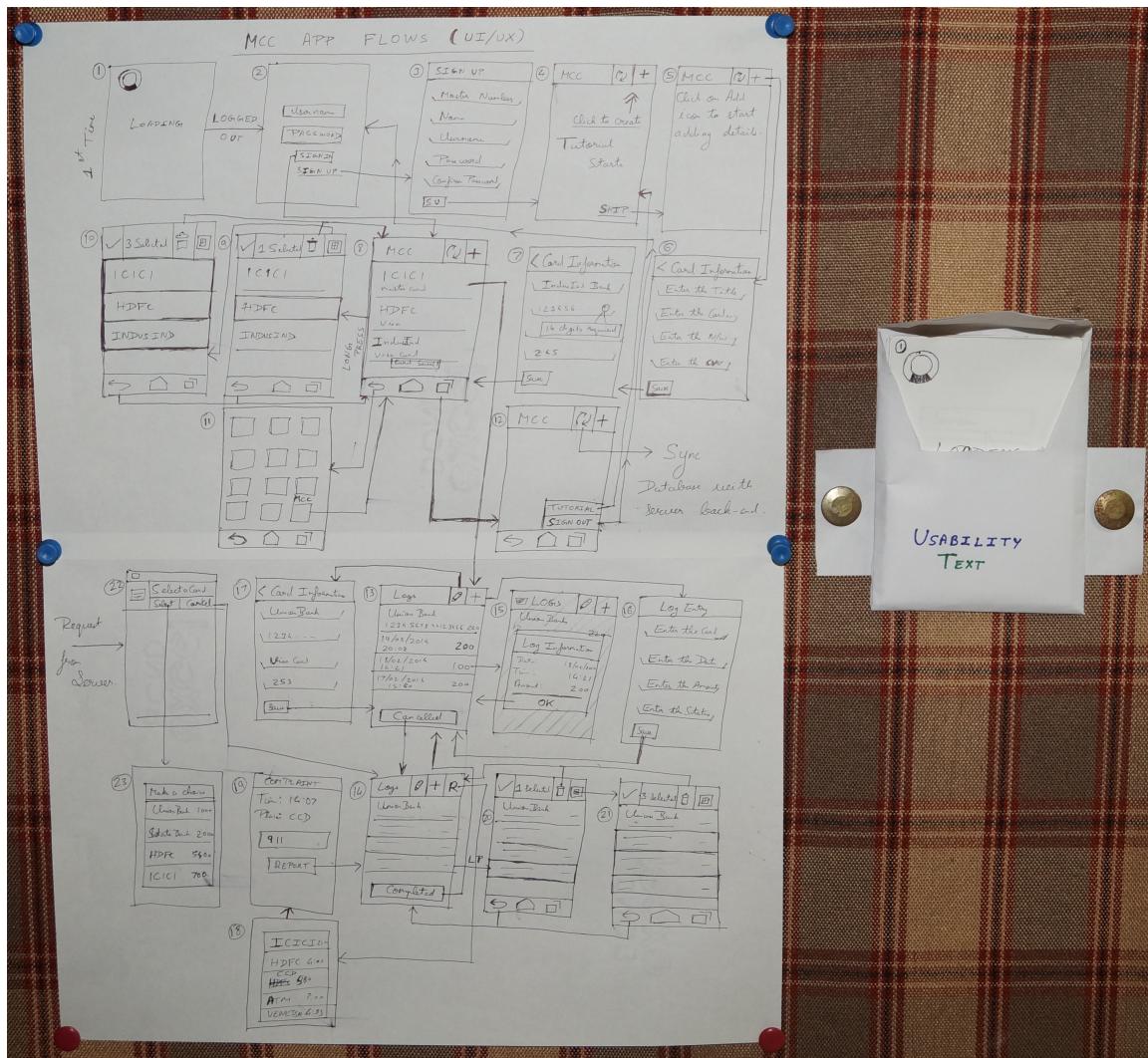


Figure 1: The Big Picture

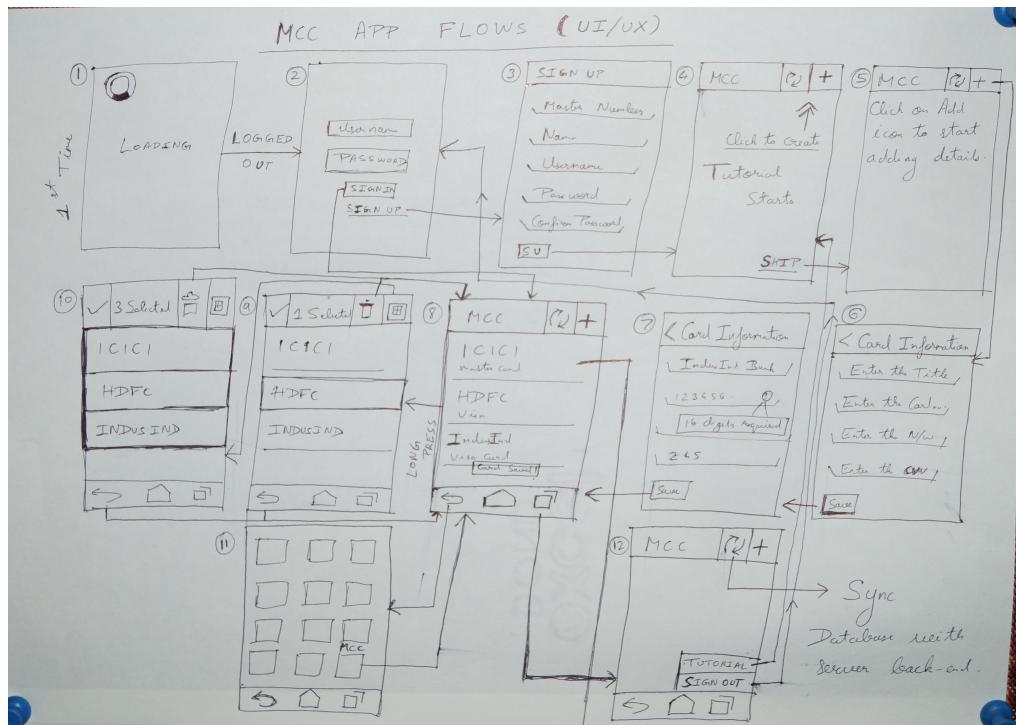


Figure 2: The detailed flow of the app (part 1/2)

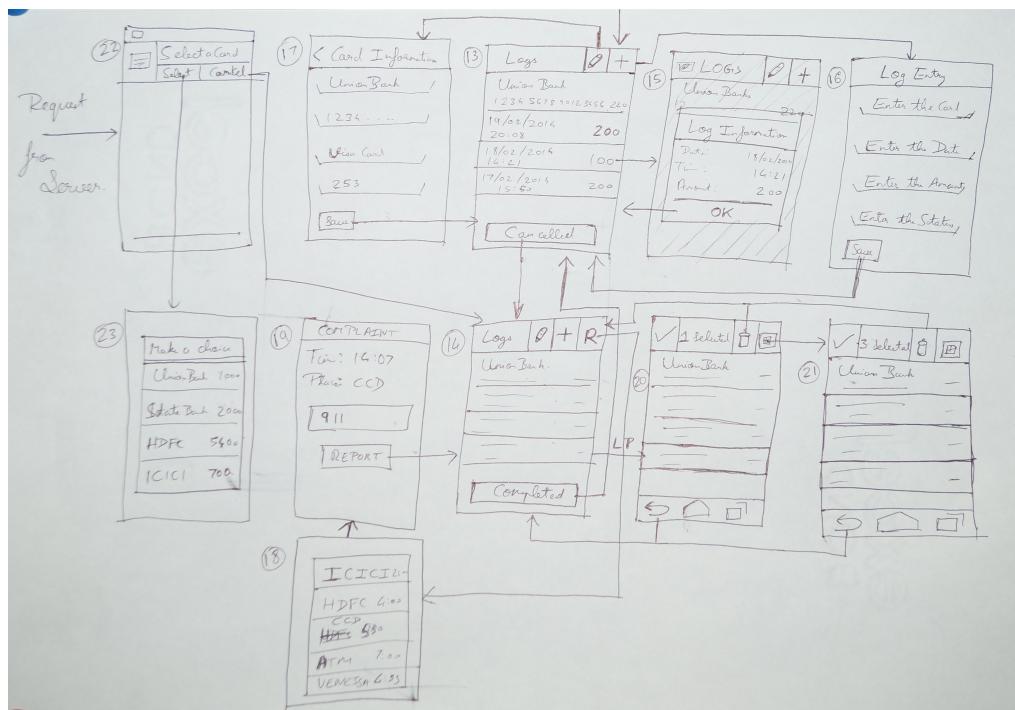


Figure 3: The detailed flow of the app (part 2/2)

INDIVIDUAL SCREENS

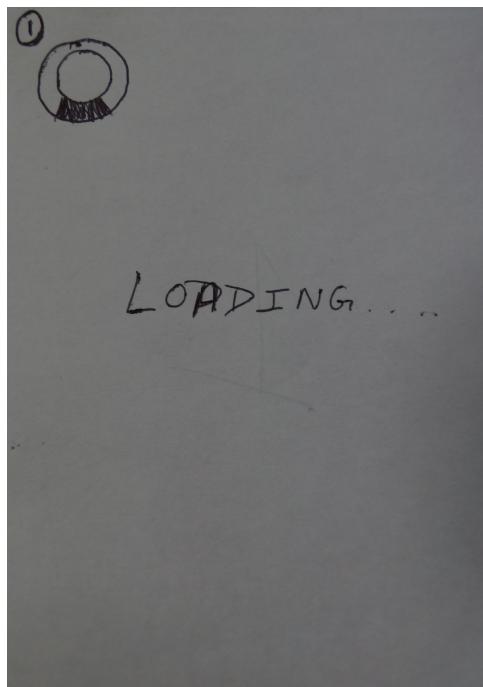


Figure 4: Loading Screen

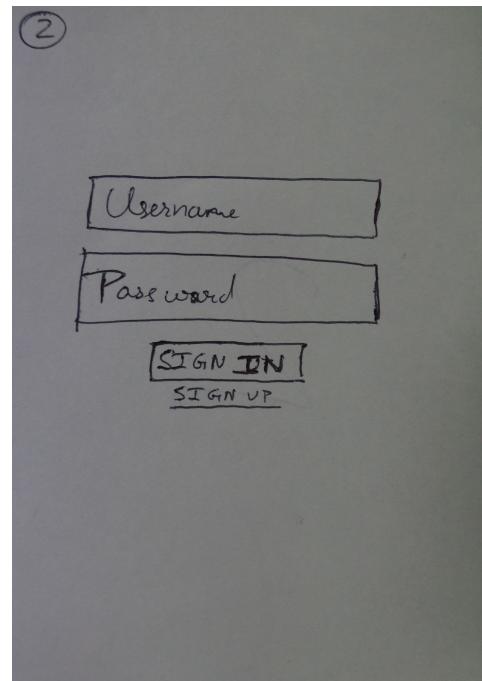


Figure 5: Login Screen

A hand-drawn sketch of a sign up form. It includes five input fields: "Master Number", "Name", "Username", "Password", and "Confirm Password". Above the first field is a link labeled "SIGN UP". At the bottom is a large rectangular button labeled "Sign UP".

Figure 6: Sign up form

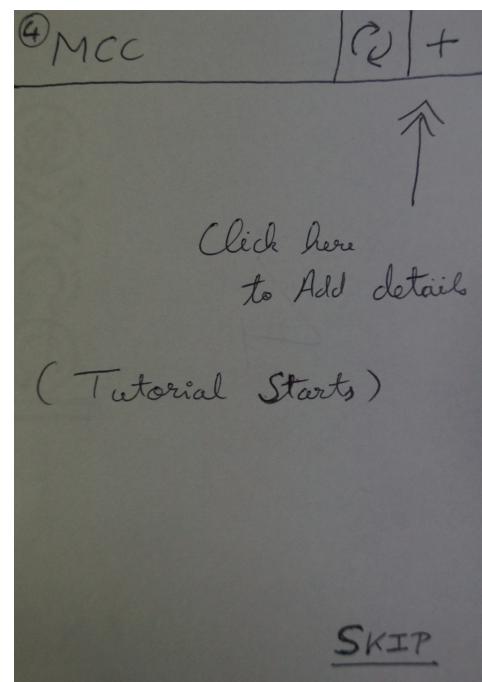


Figure 7: Tutorial starts

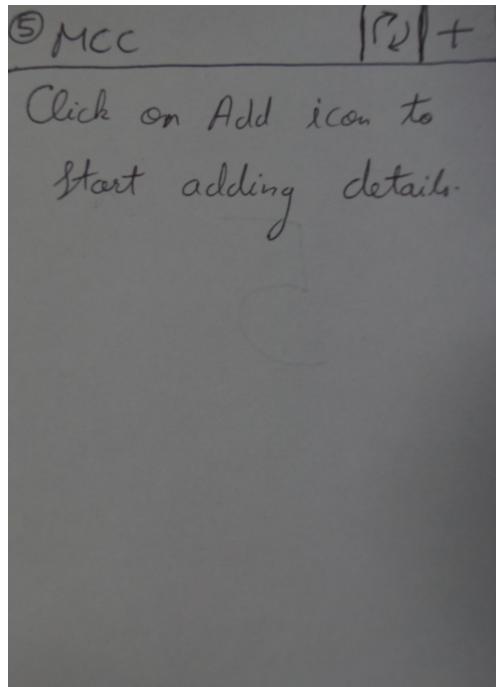


Figure 8: 1st view of app

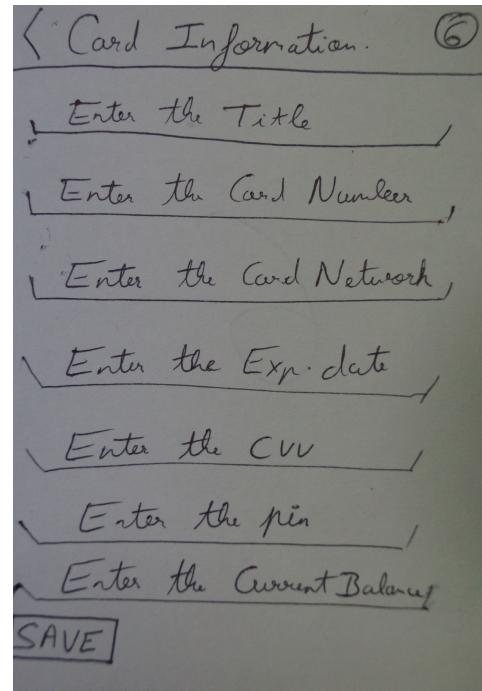


Figure 9: Card Information

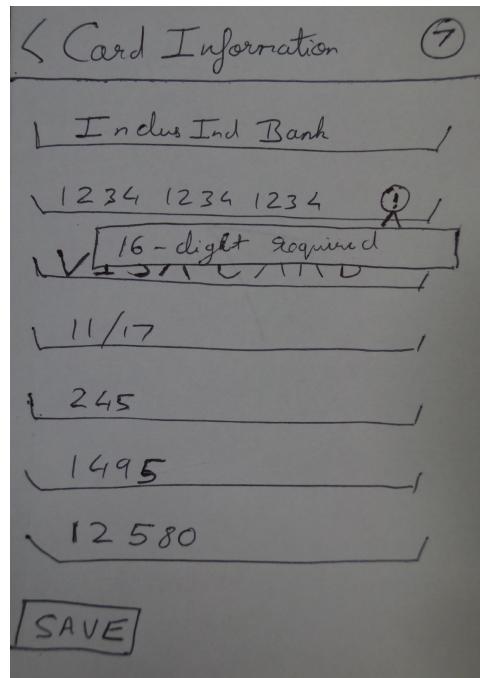


Figure 10: Validation Failed

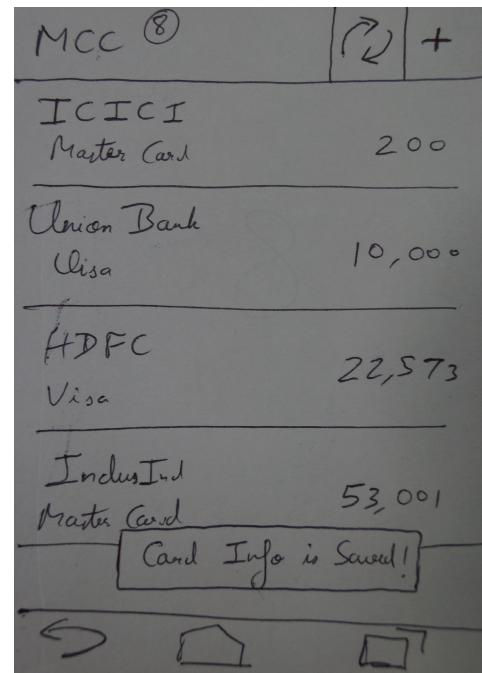


Figure 11: Card info is saved

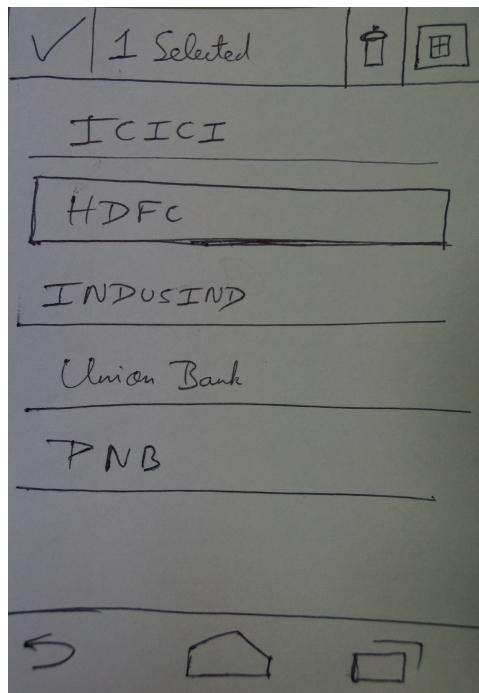


Figure 12: Contextual menu

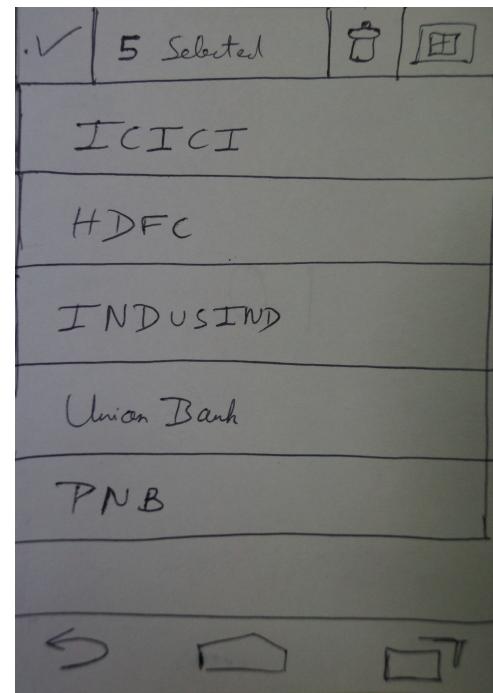


Figure 13: Select all

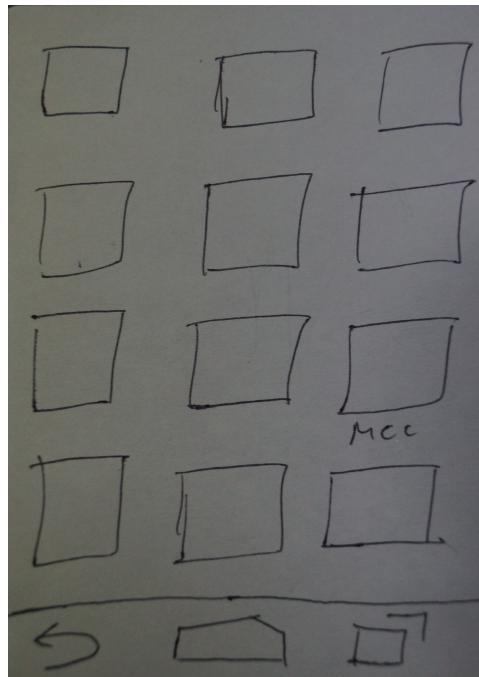


Figure 14: Home Screen

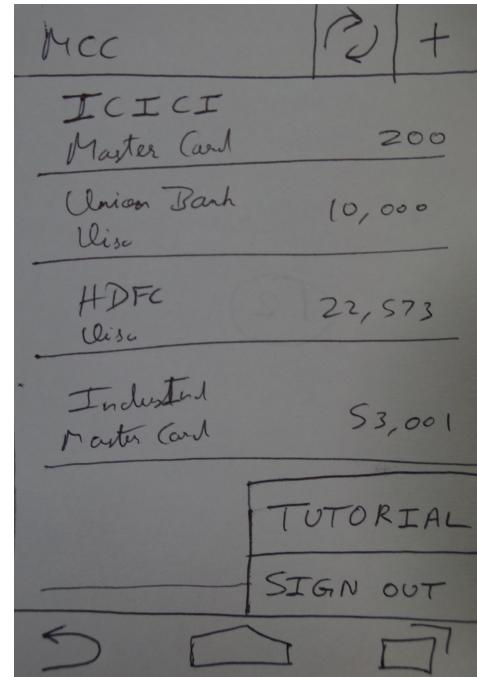


Figure 15: Menu

Logs		D		+
Union Bank				
1234 1234 1234 1234		10,000		
19/02/2014				
20:08		200		
18/02/2014				
23:21		200		
17/02/2014				
15:59		200		

Figure 16: Logs list

Logs		D		R
Union Bank				
1234 1234 1234 1234		10,000		
21/01/2014				
20:08		1000		
12/12/2013				
11:16		10,000		
10/12/2013				
16:11		500		

Figure 17: Cancelled logs

Logs		D		+
Union Bank		10000		
1234				
19/02/2014				
20:08		18/02/2014 00		
18/02/2014				
23:21		14:21 00		
17/02/2014				
15:59		200 00		
Log Information				
Date:	18/02/2014	00		
Time:	14:21	00		
Amount:	200	00		
Balance:	2200	00		
Place:	Nagpur	00		
	OK	00		

Figure 18: Log details

Log Entry

- ✓ Enter the Card ID
- ✓ Enter the Date
- ✓ Enter the Time
- ✓ Enter the Amount
- ✓ Enter the Place
- ✓ Enter the Status

SAVE

Figure 19: Log entry (Debug)

< Card Information

Union Bank

1234 1234 1234 1234

Visa Card

12/21

258

3692

2200

SAVE

Figure 20: Edit card details

19/02/2014 20:08	200
21/01/2014 11:16	400
12/12/2013 16:11	100
10/12/2013 14:21	5,000
17/9/2013 15:50	7,983
17/7/2013 17:30	1120

Figure 21: Log choice (complaint)

COMPLAINT

Date: 18/02/2014

Time: 23:21

Place: Nagpur.

Respect Sir/Madam, My Credit Card has been Stolen, last...

911

REPORT

Figure 22: Complaint details

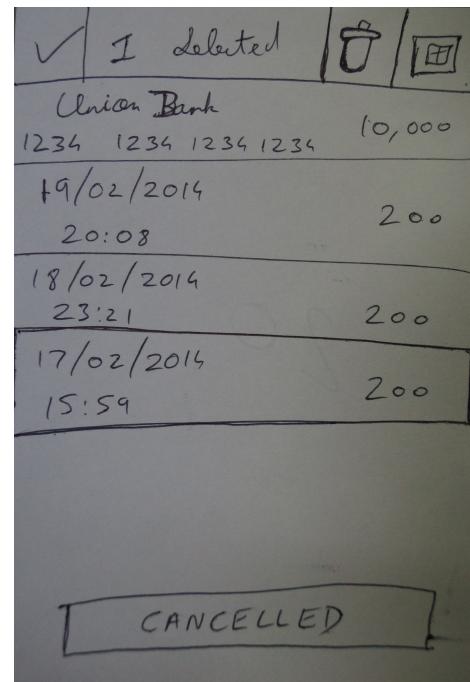


Figure 23: Contextual menu

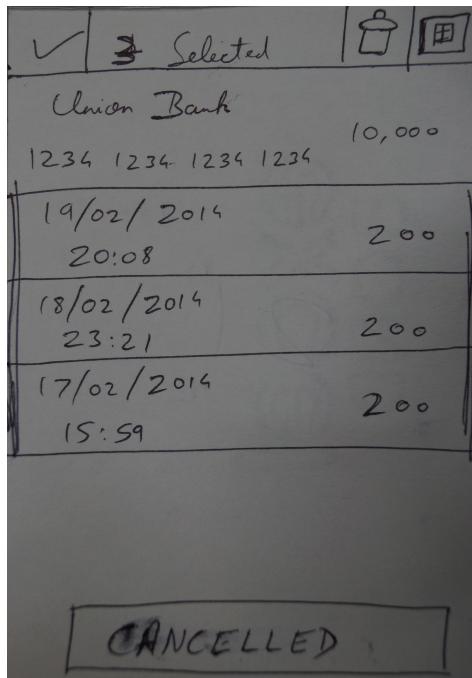


Figure 24: Select all

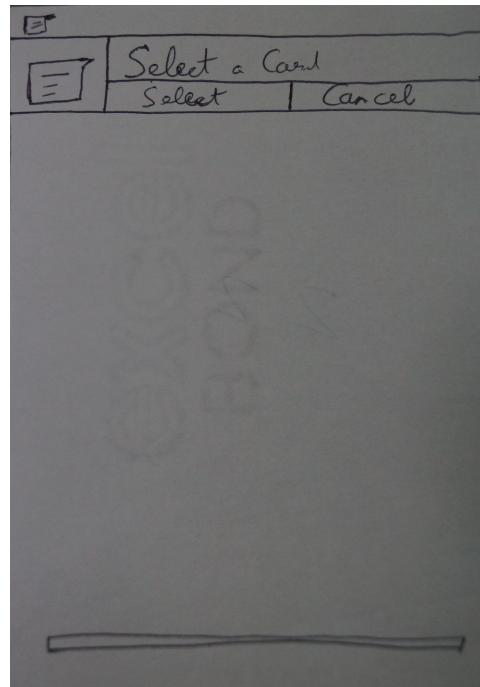


Figure 25: Notification

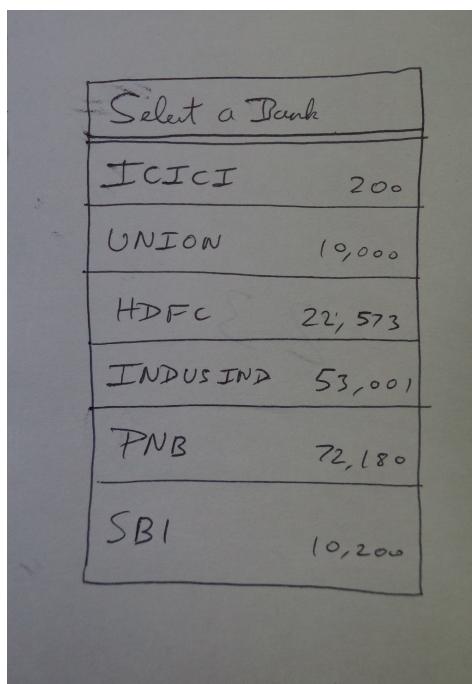


Figure 26: Selecting a bank

ADDING NEW CARDS

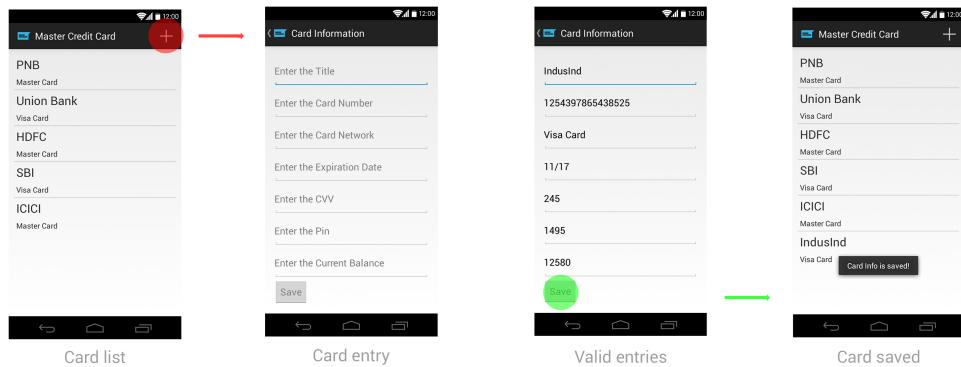


Figure 27: Task of adding a new card

VALIDATIONS

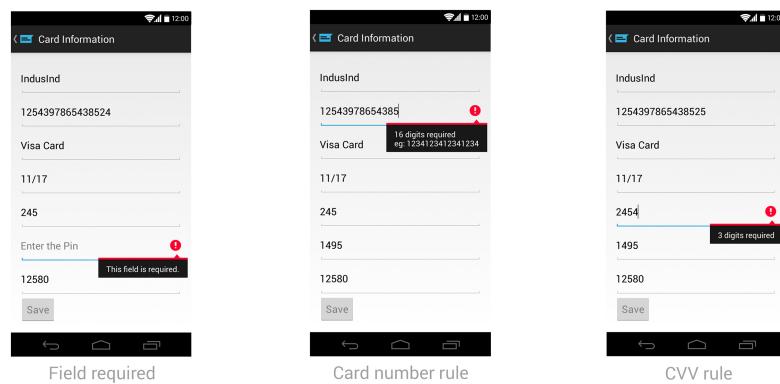


Figure 28: Types of Validations

EDITING CARD INFORMATION

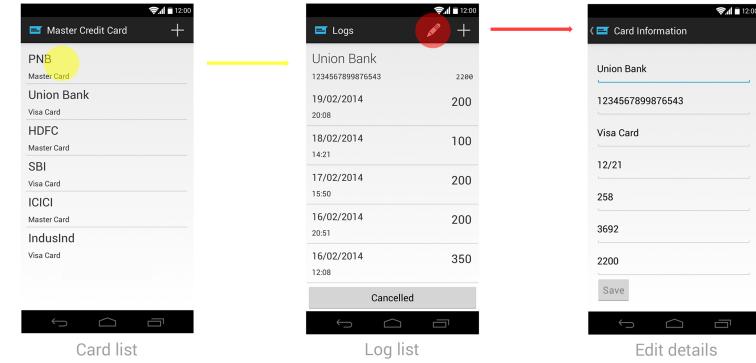


Figure 29: Task of editing card information

DELETING CARDS

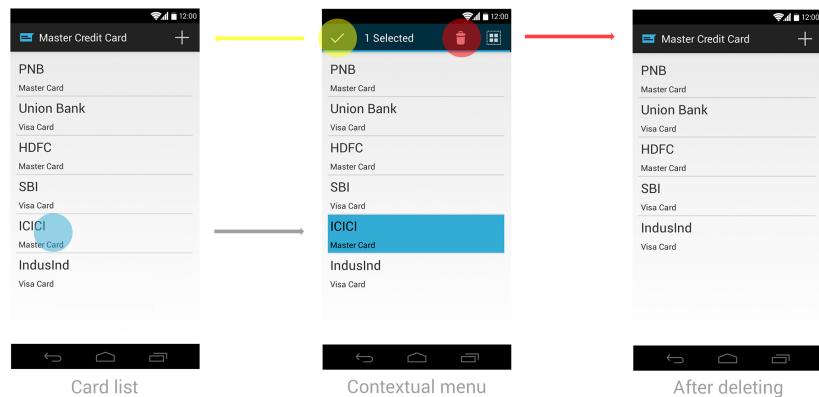


Figure 30: Task of deleting cards

LOG LIST ACTIONS

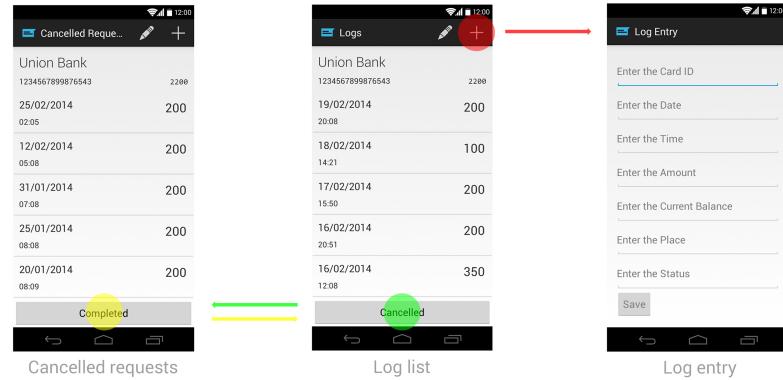


Figure 31: Other Tasks

SELECTING ALL THE LOGS

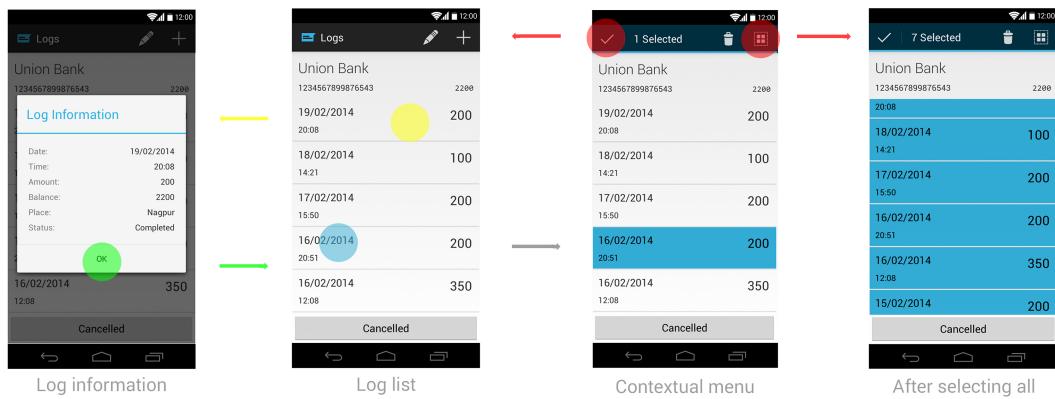


Figure 32: Task of selecting all the logs and viewing a log

PARTICIPANTS

Ms. N (Participant 1)

A final year engineering student in computer science and my classmate.

Mr. S (Participant 2)

A project mate at a live project that I am doing with a certain IT company.

Mr. A (Participant 3)

My dad, giving me a perspective of a businessman. Concerns mostly about the successful working of the app, rather than how it's being done at the back end.

Ms. P (Participant 4)

A person who just bought an Android Jelly Bean phone, and is very enthusiastic about new apps.

Mr. B (Participant 5)

A dedicated android user, who has been using it since initial launch in India around 2010.

Ms. M (Participant 6)

An iPhone user and best friend. Wanted to know if a person totally unaccustomed with the app, can use it.

TASKS

Refer the figures given above for the tasks that were asked to be completed, during interviews (Figure 27 – Figure 32).

The figures are designed in Photoshop using "[Android Design Toolkit](#)".

Figure 27 shows the task of adding new cards in the app. Figure 28 shows all types of validations failures that an user can come across. Figure 29 shows task of editing card information. Figure 30 shows task of deleting multiple cards. Figure 31 shows tasks of adding a log (which is kept just for the Beta version of this app, because I can't imagine debugging and testing without being able to add a log in the app. It will be removed once the app is tested) and task of viewing all the cancelled requests.

DESIGN ISSUES

Study

I don't know whether it was my good luck getting such talented participant or the pains I took while designing the screens, that the participants were easily able to use the app. Most of the tasks where completed and app passed the Usability Test, quite easily.

I wont go into explaining all the tasks and excruciating details about the study. But what I am gonna share with you is the Design Changes I made. I believe that the figures given in this document are self-explanatory.

Design Changes

Mr. A, Mr. B, Ms. P all of them completed all the tasks without a single problem. I came across only 2 problems in the test.

Problem 1:

Mr. S was the first participant whom I interviewed; he got stuck while reporting a police complaint for a stolen credit card. According to him he wanted to report recently cancelled log, but there wasn't a screen that helped him.

Solution/Change:

Figure 21, is courtesy Mr. S, that was added after he faced the above-mentioned problem. Participants after him used this screen very naturally.

Problem 2:

Ms. M and Ms. N both got stuck in bringing up the contextual menu for deleting the cards. (Whenever you want to perform operations on multiple files in android like images, videos for sharing, deleting etc. You long press a single image and the contextual menu gets inflated)

Solution:

Ms. N got the idea after hinting, "How do you share an image?" Ms. M being a non-user couldn't come to a solution. This is a standard way in which an android app uses deleting function, though it is newly added. I haven't made any changes yet, as I know people using android will slowly grasp it. However I'll teach how to perform this task, in the tutorial that I plan to add, as a remedy.
