

# Boulder72 Mid-Fidelity Prototype Report

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## Overview

For this assignment, we conducted user tests on three users with our mid-fidelity clickable prototype. Two users were brand new and one user had previously seen the paper prototype, so he was familiar with the goals of the app. One interesting thing we noticed was that, unlike with the paper prototypes, users expected this version to be fully functional and expressed disappointment when content they entered wasn't saved or other features weren't implemented.

## Testing protocol

We basically used the same approach as we had for the low fidelity prototype, asking users to complete the following tasks with our updated medium-fidelity prototype:

1. Getting notification during a disaster and to find out whether you are in the area that has been hit by the disaster.
2. Adding Emergency contacts.
3. Checking on an emergency contact during a disaster.
4. Keeping track of your preparedness.
5. Checking on one of your emergency contact's level of preparation.

We made no major changes, other than revealing the Zippy Easter Egg at the end of the test to gauge users' responses to this potential feature. We also varied the order of the tasks slightly between users.

## Usability Problems

<i>UAR #:</i> 1	Problem/Good: <b>Problem</b>	Rated by: Kevin
<i>Name:</i>	Navigation	
<i>Relevant heuristic:</i>	User Control	
<i>Steps to reproduce:</i>	Navigate to any of the submenus	
<i>Detailed explanation:</i>	There isn't clear "back" buttons on any of the sub-screens. The "Boulder72" link at the top returns	

	to the home page, but it isn't obviously a button, and it's function is also not obvious.	
<i>Possible solution:</i>	Clearly marked back button on each page, or convert Boulder72 button to something more obvious.	
<i>Severity (low, medium, high, critical):</i>	high	See also:2

UAR #:2	Problem/Good: <b>Suggestion</b>	Rated by: Kevin
<i>Name:</i>	Sidebar navigation	
<i>Relevant heuristic:</i>	User control	
<i>Steps to reproduce:</i>	Navigate to any subscreen	
<i>Detailed explanation:</i>	Navigation on subscreens is confusing – it isn't possible to get from subscreens to other subscreens.	
<i>Possible solution:</i>	A navigation bar that contains all subscreens could be present on all the subscreens, thus facilitating easy navigation between all the screens.	
<i>Severity (low, medium, high, critical):</i>	medium	See also:1

UAR #:3	Problem/Good: <b>Problem</b>	Rated by:Kevin
<i>Name:</i>	Checking on Contacts	
<i>Relevant heuristic:</i>	None	
<i>Steps to reproduce:</i>	Attempt to find information about a contact	
<i>Detailed explanation:</i>	There's no way of identifying is contacts are in emergencies zones, besides looking up their addresses and comparing with the map.	
<i>Possible solution:</i>	Add functionality for each contact, both in Alerts and Contacts, that alerts the user to whether any of their contacts are in any Alert zones.	

Severity (low, medium, high, critical):	high	
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UAR #:4	Problem/Good: <b>Problem</b>	Rated by:Kevin
Name:	Emergency Information	
Relevant heuristic:	None	
Steps to reproduce:	None	
Detailed explanation:	Important information could be added: non-emergency contact information for important services, like police, fire, and medical, and the Office of Emergency Management.	
Possible solution:	Add this information to somewhere obvious.	
Severity (low, medium, high, critical):	medium	

UAR #:5	Problem/Good: <b>Problem</b>	Rated by: Jennings
Name:	Color Schemes	
Relevant heuristic:	Consistency and standards	
Steps to reproduce:	Check on your disaster preparation status	
Detailed explanation:	Currently items are listed by color in which the color indicates the level of preparedness. Items are green if they are completed, yellow if almost complete, orange if halfway complete, and red if they need to be addressed. These colors are not very clear and instead make it seem that each item is colored at random.	
Possible solution:	Using some sort of progress bar instead of colors would be more conventional and would also provide more options.	
Severity (low, medium, high, critical):	medium, high	See also:

## Subjective feedback from users

Interestingly, despite significant skepticism amongst earlier respondents when asked about whether or not including Zippy in the app would be a good idea, when users were shown the Zippy Easter Egg we included as part of this round of testing, the response was overwhelmingly positive except for one user who did not see the purpose, but could be talked into Zippy if he served more of a purpose.

The app workflow seems to be fairly intuitive for new and experienced users. The goals of the app are clear and once the mysterious “back button” is discovered, navigating the app is simple.

## Proposed design changes

Given the overwhelmingly positive reaction to Zippy (except for the one no-frills user), the team decided that a future version of the Boulder72 app should certainly try to incorporate the project mascot. In introducing Zippy into some of the app’s more core functionality, we want to start slow and experiment along the way. There are a number of possibilities we would like to test with potential users, including:

- Zippy could be featured in push notifications that remind users to enter their preparedness information into the app.
- Preparedness could be further gamified, with Zippy giving awards to users who are the most prepared in their friend groups.
- Zippy could be incorporated graphically in a number of ways throughout the app for branding more than functional purposes, such as having his image on the front page, having Zippy deliver the ping message to emergency contacts and relay their responses, etc.

One of our participants pointed out that though the app includes emergency contact information for users’ social networks, there was no information about how to get in touch directly with local emergency services. In the case of real emergencies, people should obviously call 911 and we would not want our app to intervene in this process. However, we did think that we could add non-emergency contact details for important sources of emergency info in Boulder so that users could easily get in touch. This would likely be a new link from the homescreen.

Another suggestion from participants was to be able to know which of your emergency contacts were in evacuation areas. We propose to add this feature to both the alerts section,

which already contains a map, as well as the emergency contacts feature, which could show an icon or highlight contacts whose home address is in a dangerous area.

## Contribution report

Kevin conducted two users tests and recorded the corresponding UARs. Jennings conducted one user test and Sayani, Robert, and Jennings wrote the report and executive summary slide.