

Working Prototype Known Problems Report

Product name: SafetyPal

Team name: Safety_Pals

Date: July 24, 2018

- Alarm does not trigger on some devices
 - Sending a distress call is supposed to trigger an alarm on the other users device
 - The alarm functionality has been implemented but some devices do not sound an alarm
 - Potentially a device permissions issue of overriding alarm volumes.
 - This feature does not cause the application to crash so it has been left until further development can occur.
- Contact list adds duplicates
 - When adding new contacts to a contact list, each contact is not checked against the full list to determine if the contact exists.
 - To resolve, we need to find a better way to store contacts on Firebase's database that allows real time reads instead of only reporting changes.
- Contact list does not verify phone number validity
 - When adding a contact, the application does not check to ensure the phone number is a valid 10 digit number.
 - The solution involves some conditionals and Java.lang.String methods to check the number format.
- Contact list does not verify email address validity
 - When adding a contact, the application does not check to ensure the provided email address is a valid address.
 - The solution involves determining if the given address includes the "@" and a valid domain.
- Pull alarm activated flag from database crashes application
 - This is occurring in our MainActivity.
 - The cause of this issue is unknown as it was very recently discovered
 - Current solution is to comment out the offending code until the actual cause is determined.

- Outgoing custom message does not get list of contact numbers when alphanumeric characters exist in array
 - When alphanumeric strings exist in the phone number field of the contact list, the custom message feature does not correctly populate the SMS recipients field.
 - This is related to “Contact list does not verify phone number validity”
 - Solution: Further checks must be implemented when creating SMS recipients list such that numbers are checked to ensure they are valid.
- Location intermittently does not immediately update on device start
 - When launching the application, sometimes the location does not update.
 - This is due to the location services API not providing a Location object fast enough.
 - Switching to map view or sending a distress alert is a work around for this issue.
 - Solution involves scheduling a service to request faster location updates.
- Contact list does not survive application restarts
 - Contact list on device is locally stored and stored on Firebase but the two are not fully synced.
 - This is related to contact list allowing duplicates.
 - Issue: Cannot read data from Firebase’s realtime database.
 - Solution: Switch to Firebase Firestore database which allows read and write so contact list can be updated from database on application start.
- Sending SMS causes the android emulator to crash, SMS works on real hardware
 - This issue is specific to android emulators.
 - This is not an issue on real hardware devices.
 - Cause is still unknown.