

The Crypt

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The Crypt

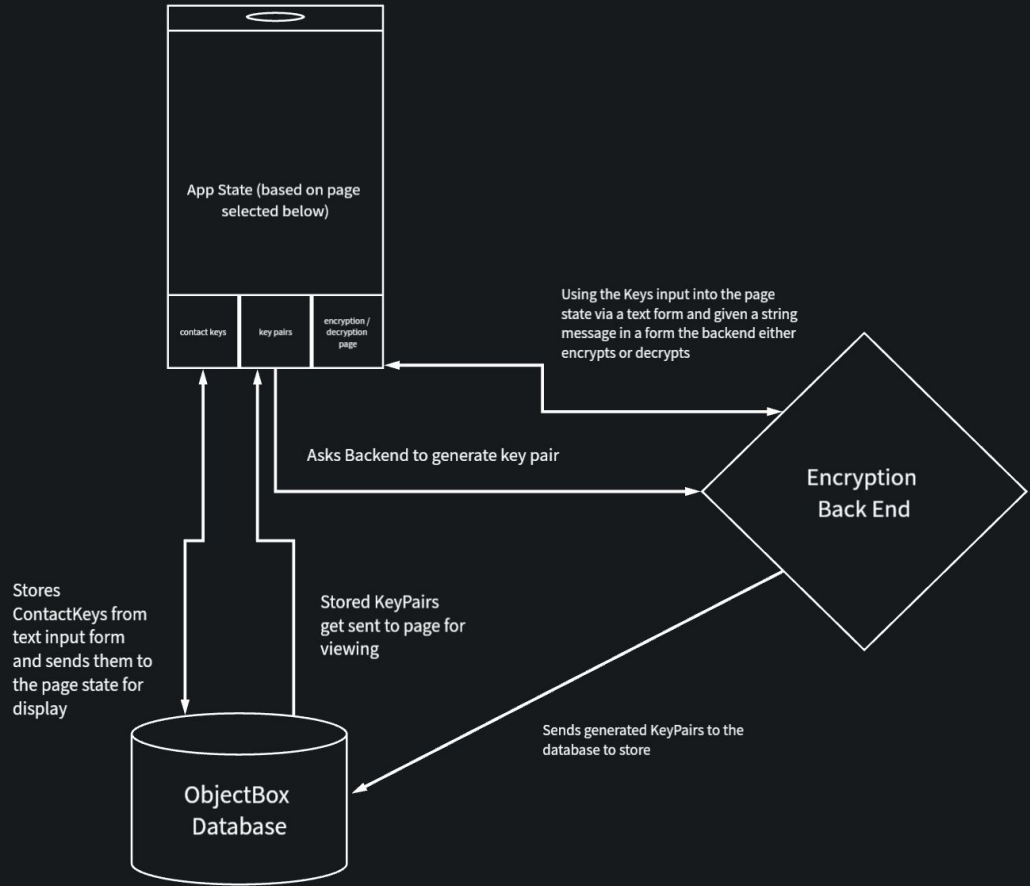
Goal

- Public option for protection against increased cyber attacks
- Allow private communication amongst parties
- No 3rd Party storage of information

Justification

- User-Friendly
- Cross platform
- Mobile-First Application
 - SMS Compatibility
- QR Functionality

Project Structure



Project Timeline

Familiarization with Used Technologies - January 25th

Front End UI - February 1st

Encryption Methods - February 28th

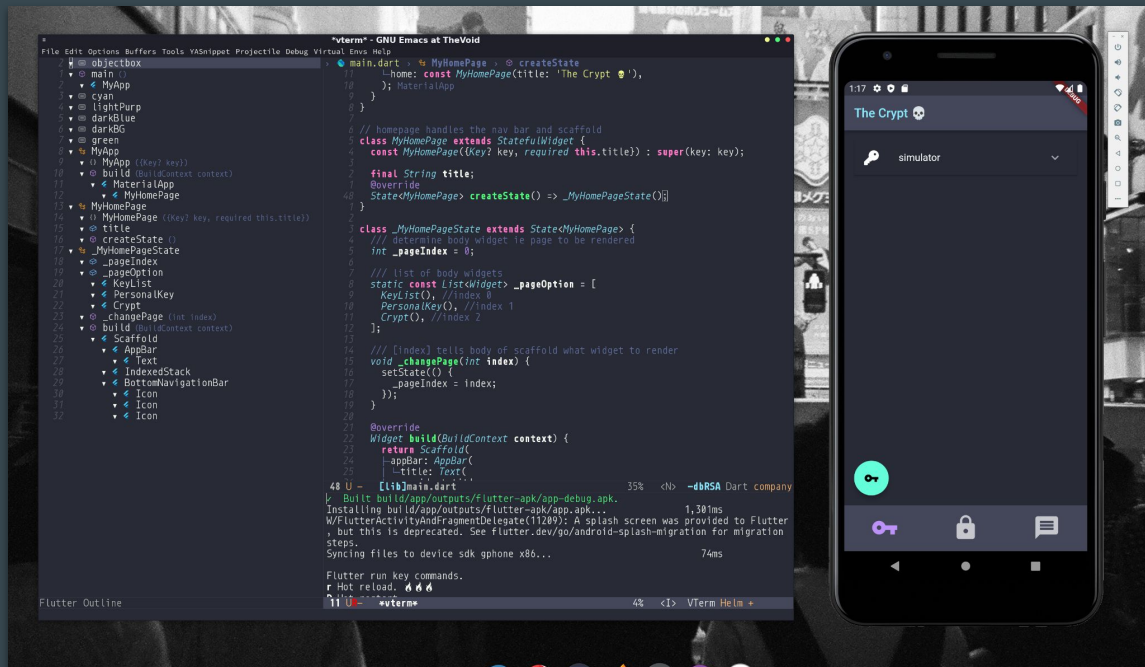
Backend Database - March 15th

QR Reader - April 10th

Technologies Used

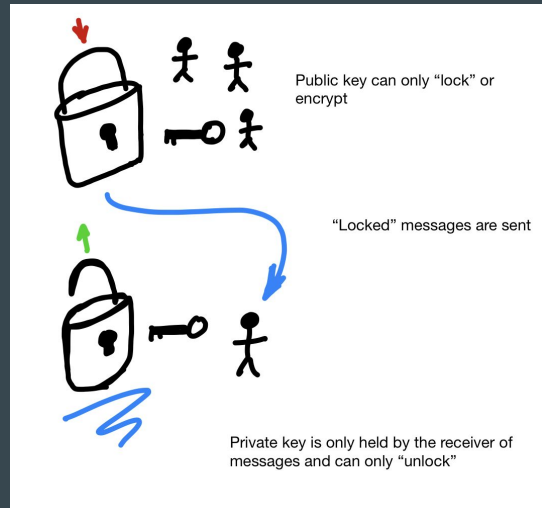
Flutter & Dart

- Flutter: An Open-Source UI SDK that focuses on producing an app that works across cross-platforms
- Dart: programming language used in the flutter framework
 - Object oriented
 - Extremely fast
 - Like a mix of Java and javascript (the best of both)



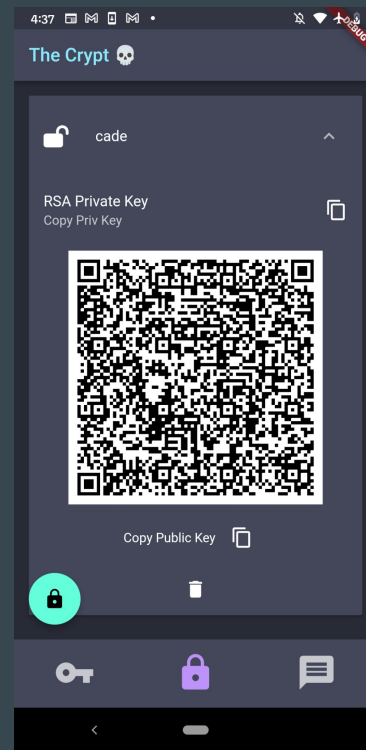
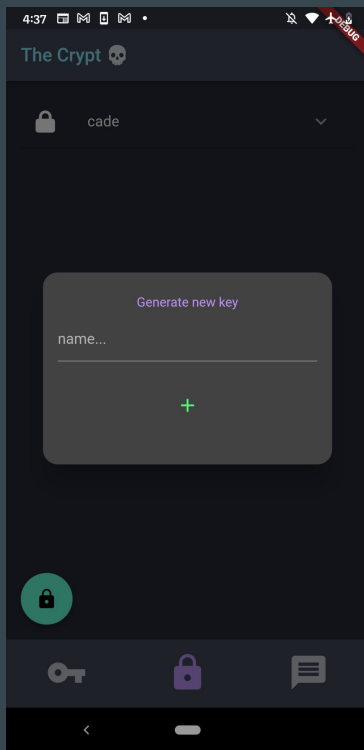
Feature Implementations

- ObjectBox
 - Used to store keys for self and others
 - Cross platform relational database
- RSA
 - Widely accepted encryption system used for applications such as email, VPNs, chats, etc.
 - Public keys accessible by others and private keys only available to self
 - Fast_rsa is a plugin for flutter written in go that is fast and cross platform
- QR Reader
 - Quick and simple way to transfer encrypted data and keys between devices
- Flutter Test
 - Testing of RSA system

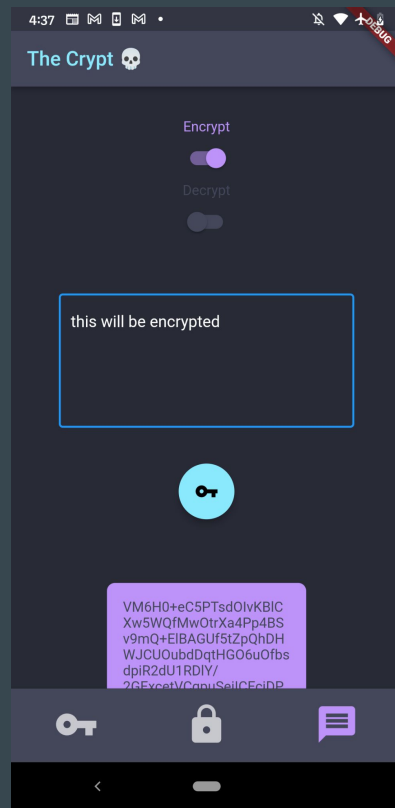
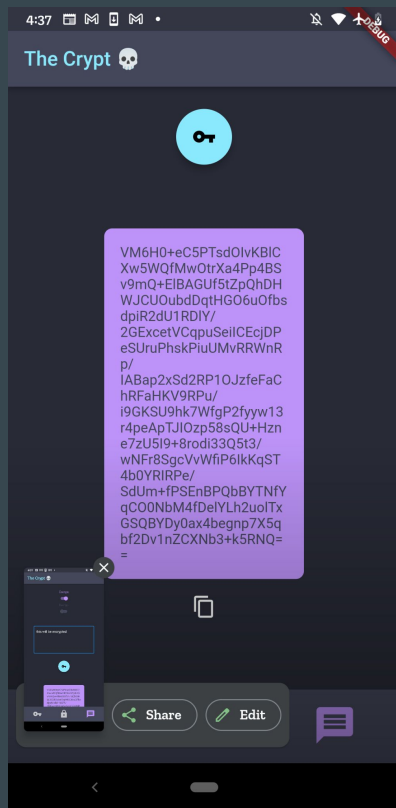


Demo

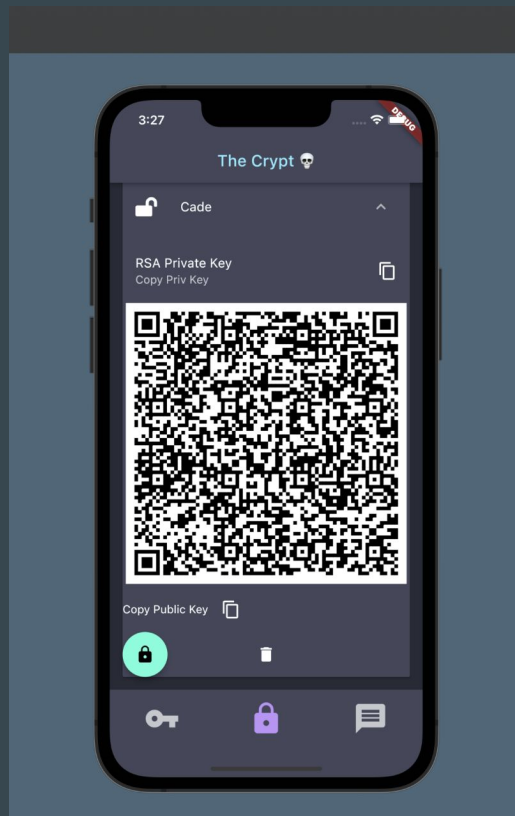
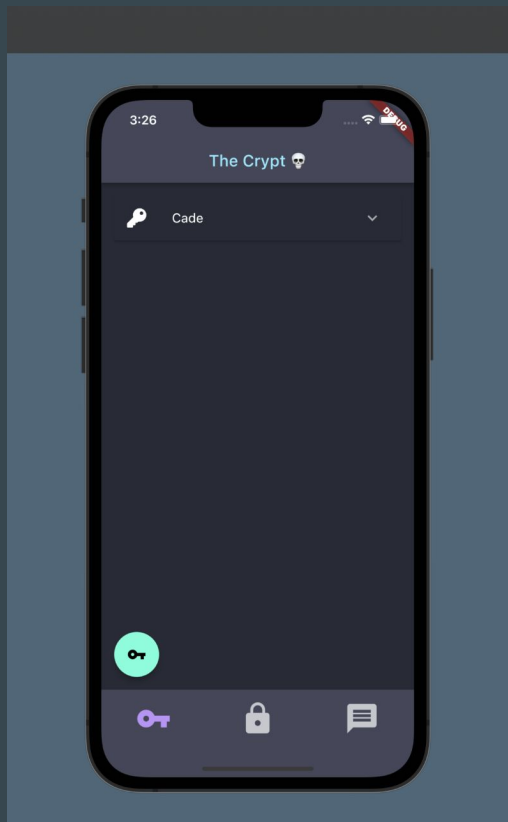
Demo - Android Compatibility (Installed on Hardware)



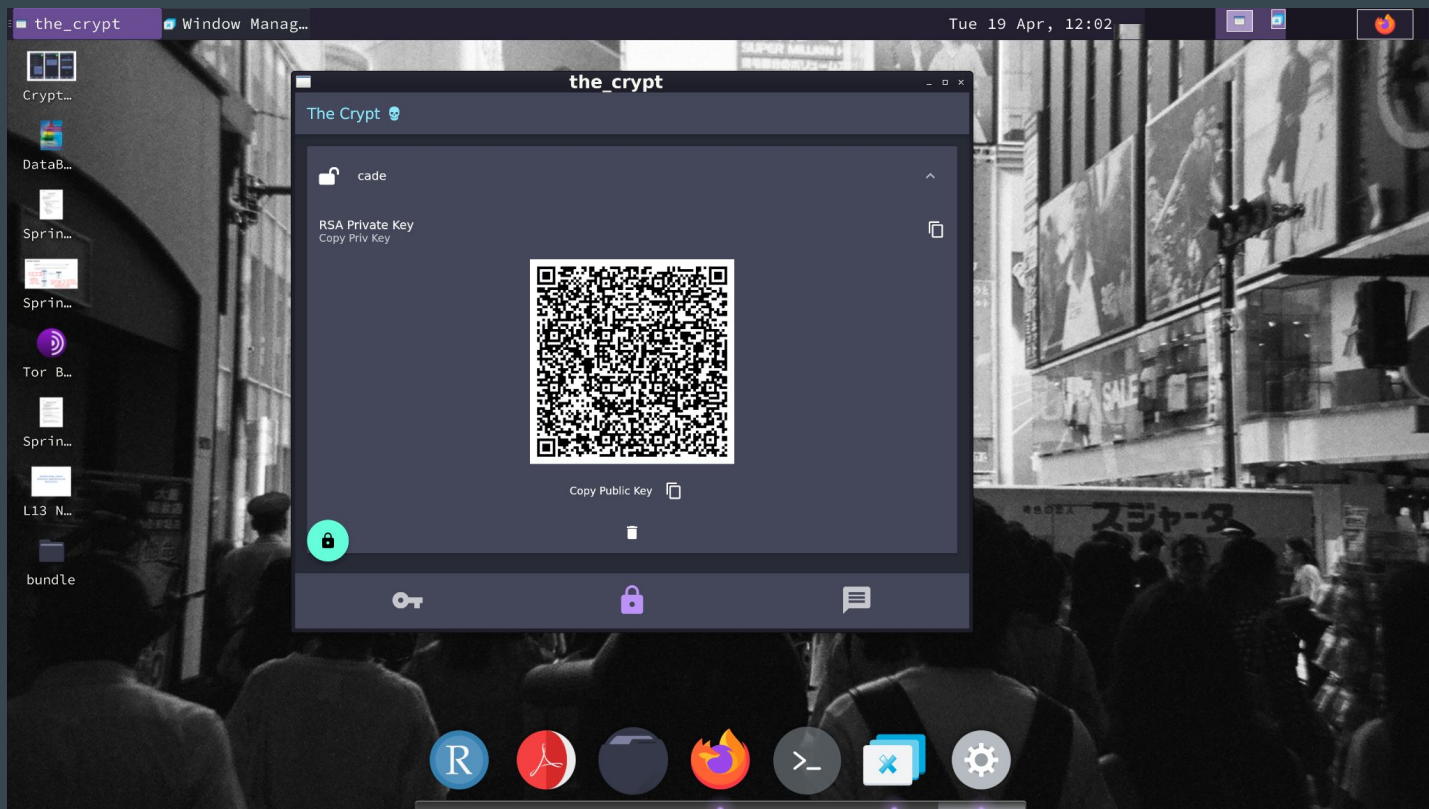
Demo



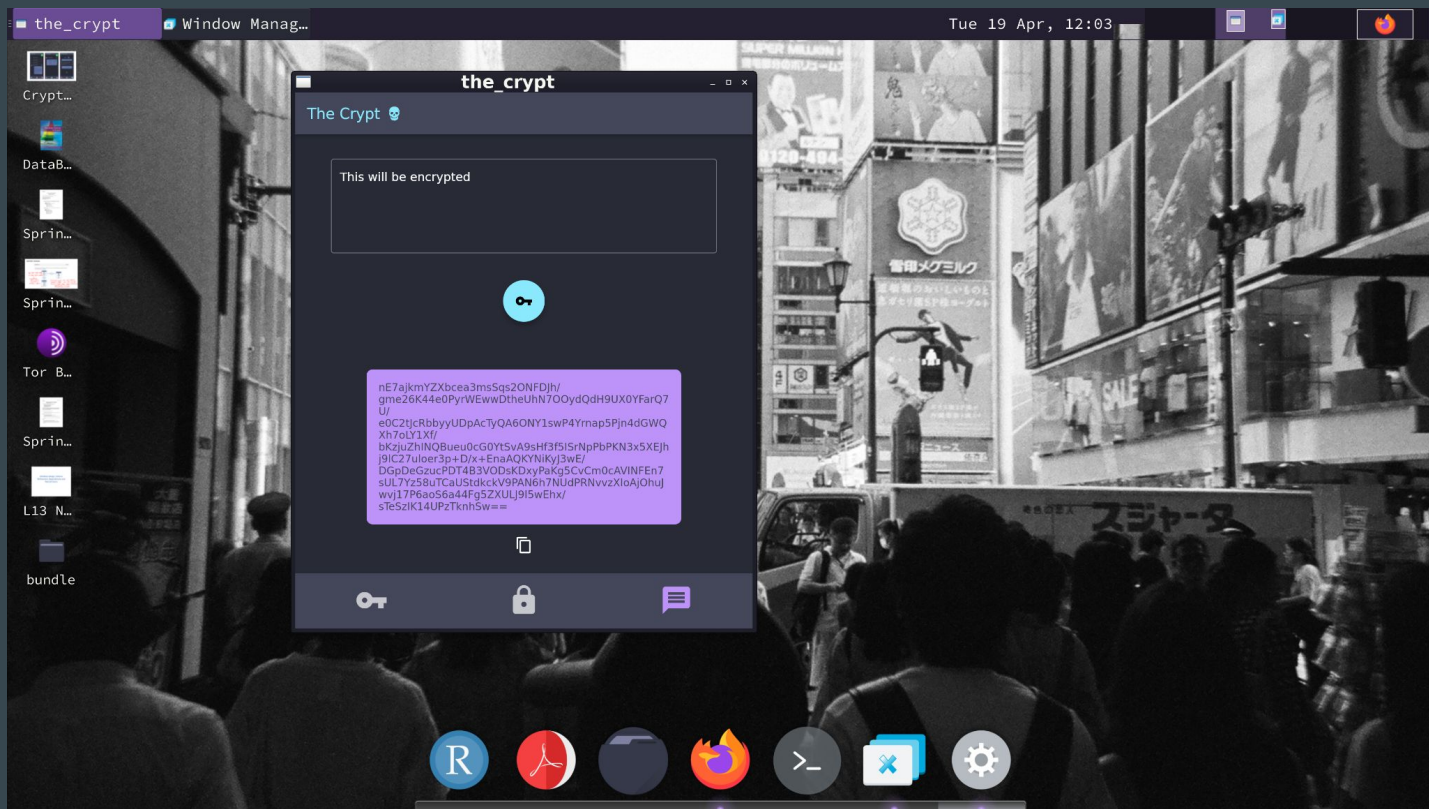
Demo - iOS Compatibility (running on simulator)



Demo - Linux Compatibility (Installed on Hardware)



Demo - Linux Compatibility (Installed on Hardware)



Live Demo