The Crypt

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The Crypt

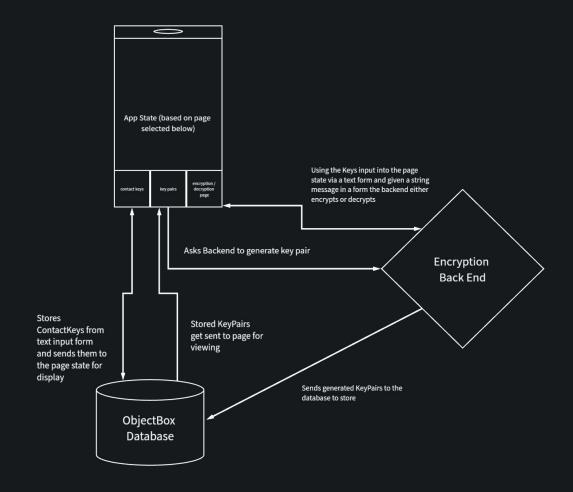
Goal

- 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)

```
*vterm* - GNU Emacs at TheVoid

    □ objectbox

                                                                                                                                                     1:17 0 0 6
                                                                                                                                                     The Crypt 💀
                                                       class MyHomePage extends StatefulWidget {
  const MyHomePage({Key? key, required this.title}) : super(key: key);
                                                                                                                                                             simulator
                                                         State<MyHomePage> createState() => _MyHomePageState();
 😘 _MvHomePageState
                                                          int _pageIndex = 0;
                                                          static const List<Widget> _pageOption = [

▼ ✓ IndexedStack

▼ ✓ BottomNavigationBar

                                                         Widget build(BuildContext context) {
                                                                                                                                                      0+
                                                  48 U - [Lib]main.dart
                                                                                                          35% <N> -dbRSA Dart company
                                                 Installing build/app/outputs/flutter-apk/app.apk... 1,301ms
W/FlutterActivityAndFragmentDelegate(11209): A splash screen was provided to Flutter
                                                                                                                                                                                       OT
                                                  , but this is deprecated. See flutter.dev/go/android-splash-migration for migration
                                                 Syncing files to device sdk gphone x86.
                                                 Flutter run key commands
                                                 r Hot reload. 666
                                                                                                           4% <I> VTerm Helm +
```

Feature Implementations

ObjectBox

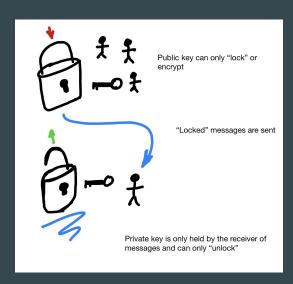
- Used to store keys for self and others
- Cross platform relational database

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

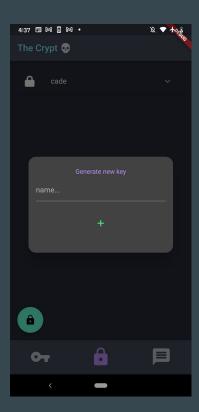
- Quick and simple way to transfer encrypted data and keys between devices
- Flutter Test
 - Testing of RSA system

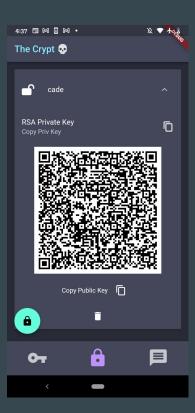


Demo

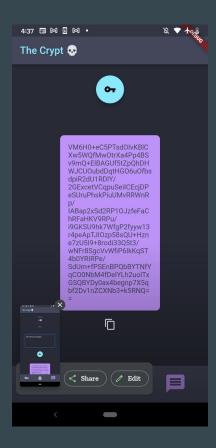
Demo - Android Compatibility (Installed on Hardware)

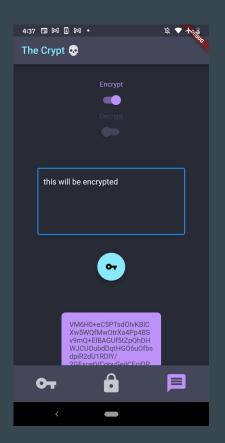




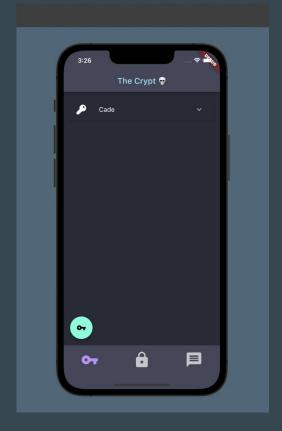


Demo



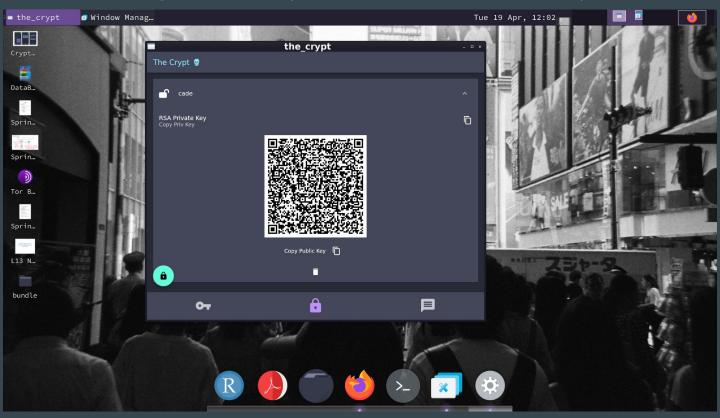


Demo - iOS Compatibility (running on simulator)

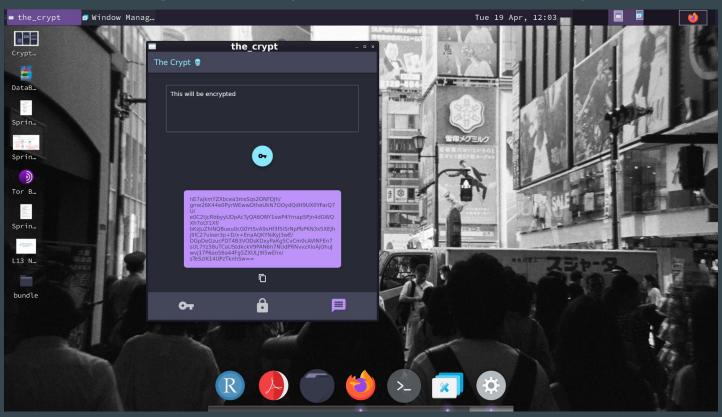




Demo - Linux Compatibility (Installed on Hardware)



Demo - Linux Compatibility (Installed on Hardware)



Live Demo