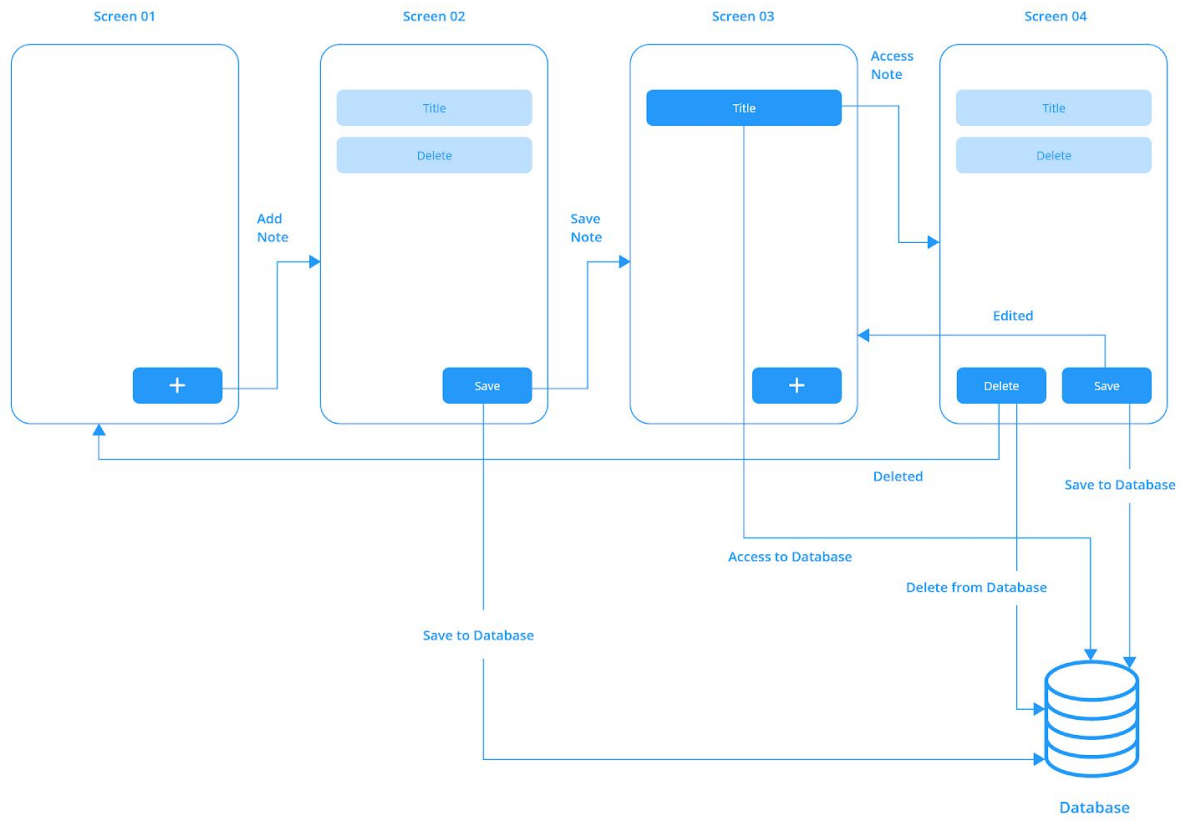# CryptoPad: An Electronic Diary

1. Background Study

CryptoPad is a digital version of a notepad where a person can add notes and save them on the present date as like a personal diary. A person can edit and delete notes. The main purpose of making this kind of mobile application is to store personal data in a secured and decentralized database. CryptoPad is not just like a traditional notebook or notepad mobile application. This app is a better and advanced version of a notebook or notepad mobile application. There are many kinds of notepad mobile applications around the market like BlackNote, ColorNote, Evernote, FairNote, FiiNote, Google Keep Notes. CryptoPad is inspired by those notepad apps. In CryptoPad A person truly owns his/her data. Users do not need to trust the database's security. Users can verify it all by themselves. As the mobile application has a dedicated database and it is fully offline so it is out of the grip of any other person. The personal data of the user is secure as long as CryptoPad is installed on the user's mobile phone. If the user's mobile phone is lost or damaged, then the user's data would be lost forever. Cryptopad provides a better and secure version of digital notepad.

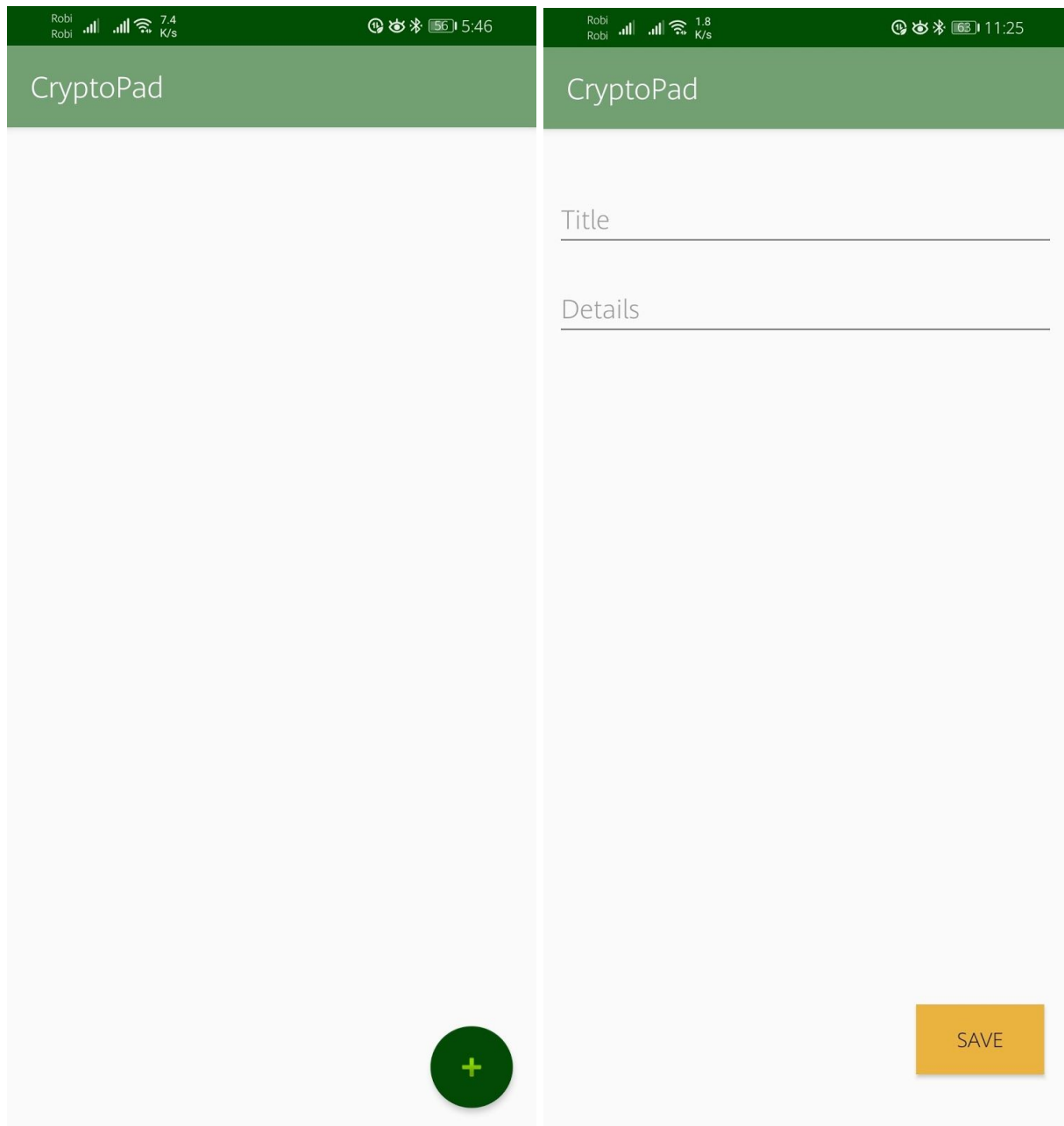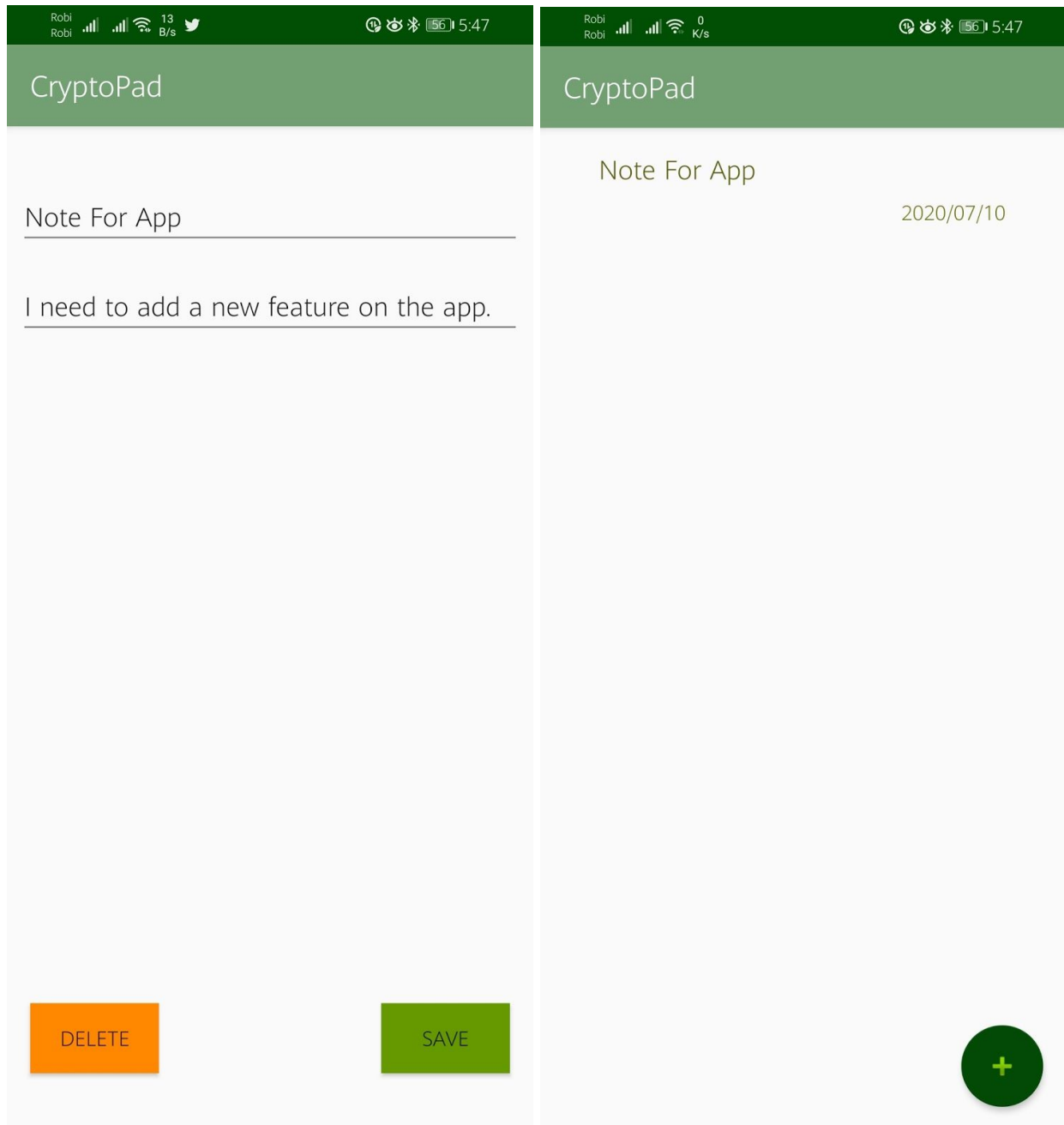**Keywords:** Decentralized Database, Notepad Mobile Application.

2. Methodology

For developing a better mobile application a developer first has to make a UX architecture and design a wireframe. A wireframe is a schematic illustration of a page interface used to demonstrate the placement of content and functional elements on the page. Wireframes help establish relationships between individual pages and serve as a foundation for prototypes. The wireframing process is a necessary part of the design process because it helps convey information architecture. The goal of wireframing is to connect the product's information architecture to its visual design. UX design is the process of designing apps that are useful, easy to use, and delightful to interact with. It's about enhancing the experience that people have while interacting with a developer's product and making sure they find value in what the developer provides. After combining all those developing processes we develop the below wireframe.

Wireframe:

Screen 01 Screen 02 Screen 03 Screen 04

Title

Delete

Access
Note

Title

Title

Delete

Add
Note

Save
Note

Edited

+ Save + Delete Save

Deleted Save to Database

Access to Database

Delete from Database

Save to Database

Database

MOCK:

CryptoPad

Note For App

I need to add a new feature on the app.

DELETE   SAVE

CryptoPad

Note For App

2020/07/10

+

3. Tools and Background Technology

Platform: Kotlin JVM, Build on Android 10.0(Q), Compatible for Android 7.0(Nougat) to Android 10.0(Q), Build on Android SDK Platform 29 Version 5, Compatible for Android SDK Platform 24 to Android SDK Platform 29 Version 5.

Tool: Kotlin 1.3.20**,** Kotlin Plugin**,** Android SDK Build-Tools version 19.1.0 to Version 30.0.2, NDK Version 16.1.4479499 To Version 21.3.6528147, Android SDK Command-line Tools Version 1.0 To Version 2.1, CMake Version 3.6.4111459 and Version 3.10.2.4988404, Android Auto API Simulators Version1, Android Auto Desktop Head Unit emulator Version 1.1, Android Emulator Version 30.0.26, Android SDK Platform-Tools 30.0.4, Google Play APK Expansion Library Version 1, Google Play Instant Development SDK Version 1.9.0, Google Play Licensing Library Version 1, Google Play services Version 49, Google USB Driver Version 13, Google Wed Driver Version 2, Intel x86 Emulator Acceleration (HAXM installer) Version 7.5.6, Layout Inspector image server for API 29-30.

Database: Realm Kotlin Database Version 7.0.0

Type: Offline

4. References:

1. https://cointelegraph.com/explained/decentralized-and-distributed-databases-explained

2. https://www.androidauthority.com/best-note-taking-apps-for-android-205356/