

Architecture and Design

Purpose:

The purpose of this project is to create an app that periodically reminds the user to contact important people in their life. The app will keep track of who the user contacted and when. Users will be able to add people to this list, set custom reminder schedules for each person, and log the date they contact someone.

This document has been designed to ensure conceptual clarity on the details of the project.

Design:

The project consists of two main parts: the main application and the push notification server. The main application receives user input and presents information to the user. It also communicates user-inputted pairs of dates and names to the push notification server, which uses this information to send reminder notifications to the user's phone on the specified dates.

Additionally, the main application can be further broken down into a front end and a light back end.

Front End (Main Application):

The front end is implemented through Flutter, and comprises the majority of the app. It is made of five main views: the "Person List," "Person Profile," "Add Person," "Edit Person," and optional "First-Time User" screens. The relationship between these views (and their shared components) can be seen in the diagram at the end of this document.

Back End (Main Application):

The back end of the main application is also implemented through Flutter. The back end serves data to the front end through the MVP (Model-View-Presenter) architecture. User data is stored in the phone's local storage. When notification frequencies are updated, the back end sends the associated information to the back-end server using the Notification model seen at the end of the document.

Back End (Server):

The back-end server is implemented using Google Firebase. This server contains logic for scheduling reminders based on the Notification information it receives. This also includes rescheduling notifications when a user updates a notification schedule.

