

## How to Use this Template

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## Submission Instructions

1. After you’ve completed all the sections, download this document as a PDF [ File → Download as PDF ]
2. Create a new GitHub repo for the capstone. Name it “**Capstone Project**”
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**GitHub Username:** ipaddr (<https://github.com/ipaddr>)

# Rereso Apps

## Description

Rereso Apps is android application for registering and recording information about family that just have a new born baby. By using Rereso Apps, any document needed by official government in process for publishing a certificate of birth for new born baby will be registered and recorded in Rereso Apps and government institution can use Rereso Apps as reference to publish certificate of birth. To publish certificate of birth 3 government institution is involved, they are village government, sub-districts government, districts government.

In Indonesia with a lot of rural area, traveling from one place to other place is a difficult thing to be done in process for publishing a certificate birth for new born baby, not only mass transportation is not yet available, but also in process to publish certificate of birth, parent of new born baby should visit 3 of different government institution. Moreover in process of visiting those 3 different place, often parent forgot to bring required document at destination institution and they need to back home just to bring it back to destination institution. Rereso Apps aim to register and record those document in the lowest government level which is village government, so village government officer only need to add new info and submit the picture of required document to publish certificate of birth from parent of new born baby to Rereso Apps and later Rereso Apps will sync automatically at three different government institution.

## Intended User

This app is for institution government officer such as village, sub-districts and districts officer that have authority to publish certificate of birth.

## Features

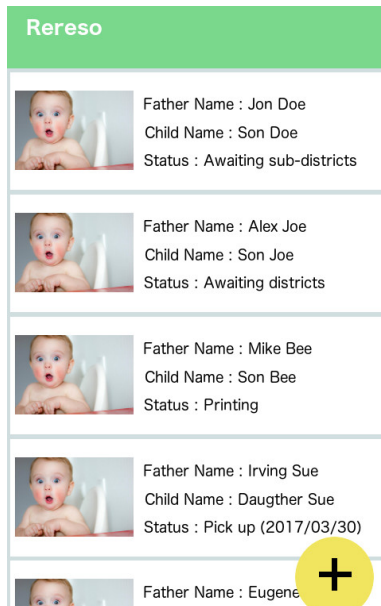
List of the main features of Rereso Apps:

- Save information require to publish certificate of birth
- Take pictures of require document to publish certificate of birth

## User Interface Mocks

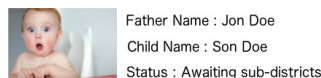
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

## Screen 1



This is main screen of Rereso apps. In the main screen are listed all of record for society that wish to publish a certificate of birth for their child. For each list item, there is picture of the new born baby, name of baby father, name of the baby and status of their application in order to publish certificate of birth at official government. This screen will be used by government officer of village, sub-districts and district. Three remaining screen will act different according to who have privilege of those screen.

## Screen 2



This is an app widget that will shown info of available family application for certifacte of birth with the most old data and not yet picked up. User will be able to scroll through app widget list in at home screen, so update information will be easily distribute to all society

### Screen 3

Jon Doe

Father Name :

Mother Name :

Child Name :

**Required Document :**

RT/RW RS KK KTP

ADD

This is Add new data screen of Rereso apps. In this screen village officer will add new info regarding to family of new born baby such as father name, mother name, baby name and also requirement picture of document such as RT/RW (Letter by Neighborhood Association), RS (Certification of Birth from Hospital), KK (Family Card Identity publish by sub-district Government), KTP (Such as of Social Security Number). If all info already added and required document picture has already been taken then village officer will save it to system, then later will sync to sub-districts officer Rereso application.

## Screen 4

Jon Doe

Father Name :  

---


Mother Name :  


---


Child Name :  


---

**Required Document :**

  
RT/RW

  
RS

  
KK

  
KTP

DECLINE

APPROVE

This is verification screen of Rereso apps on sub-districts government officer side. In this screen officer will verify all information and required document to publish a certificate of birth such as father name, mother name, baby name and also requirement picture of document such as RT/ RW (Introduction letter by Neighborhood Association), RS (Certification of birth from Hospital), KK (Family Card Identity publish by sub-district government), KTP (Suc as of Social security number). If all info already added and required document picture taken by village government officer is verified, then sub-districts officer will approve it and it will sync to districts officer Rereso application. In the other hand, If all info already added and required document picture taken by village officer is not verified, then sub-districts officer will decline it and it will also sync to village government officer Rereso application.

## Screen 5

Jon Doe

Father Name :

Mother Name :

Child Name :

**Required Document :**

RT/RW RS KK KTP

**PRINTING**

**PICK UP**

This is printing and picking up screen of Rereso apps on districts officer side. To publish certificate of birth physically will takes time, so printing button will be selected by districts officer to update status both on sub-districts and village officer application. If physically print document already available, then pick up button will be selected by districts officer in order to update status on sub-districts and village officer application, later village or sub-districts officer may contact the family that have certificate of birth available on districts goverment officer.

Add as many screens as you need to portray your app's UI flow.

## Key Considerations

### How will your app handle data persistence?

This app will use firebase realtime database and file storeage to accomodate family infomration and picture of document needed. To simulate real case scenario firebase relatime databse and file storagee will be called on background thread such as intent service or service worker or sync adapter. To handel persistence, this app will also store persistence data in app database in case of no internet connection. Peristance data will use sqllite along with content provider, and support of cursor loader.

### Describe any corner cases in the UX.

This app will be started with Main screen. If no data available in the main screen or list is empty, then empty list text view will be display in main screen. All scenario apply to all officer in each level. If village officer hit plus button, then screen 2 will display. Village officer will be able to add

information related to new born baby family and pictures of related document by hitting image according to it section. Image will be able by pick it from gallery or capture it with phone camera. If all requirement information and pictures of requirement document already filled, then village officer will hit add button in order to sync the data with sub-districts officer. If some information or picture not supplied by village officer, then dialog pop up will show up with detail of not supplied info. Same scenario will apply to sub-districts and districts officer with some confirmation dialog pop up if officer hit button.

### **Describe any libraries you'll be using and share your reasoning for including them.**

Some libraries will probably be used are Google Play Service to handle, Picasso to handle image management, support library to handle older version, Firebase Core and Auth to auth with email and password, Firebase Realtime Database to save and retrieve info of family, Firebase File Storage to store image of required document.

### **Describe how you will implement Google Play Services.**

I will use Google Play Service Analytics to gather information related to behavior of end user, track crash, measure how many certificates of birth can be published.

## **Next Steps: Required Tasks**

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

### **Task 1: Project Setup**

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

- Configure dependencies on project and app gradle build for Firebase Realtime Database, file storage, auth, and Google Analytics
- Configure Firebase console

### **Task 2: Implement UI for Each Activity and Fragment**

List the subtasks. For example:

- Build UI for MainActivity for displaying list of new born baby application using recycler view, cursor loader, and content provider
- Build UI for DetailActivity for add and update status of new born baby application update by content provider using cursor loader.

### Task 3: Implement Firebase services

Describe the next task. List the subtasks. For example:

- Implement firebase realtime database to sync data for all user
- Implement firebase file storage to sync data for all user
- Implement firebase auth to manage role of all user
- Implement firebase notification to notify user about new status update

### Task 4: Store persistence data in sqlite database

Describe the next task. List the subtasks. For example:

- Create database helper, contract, and content provider class
- Create custom cursor to accommodate data from database
- Store firebase realtime database in sqlite database

Add as many tasks as you need to complete your app.

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