Contacts Android App Project Documentation

Introduction

The Contacts Android App Project is an application developed as part of an Android Studio class. It serves as a practical implementation to manage contacts on an Android device. The app allows users to store, view, edit, and delete contact information conveniently.

Installation

To install the Contacts Android App, follow these steps:

1. Clone the repository from GitHub: [https://github.com/nogueira-r/Contacts-Android-App-Project]
2. Open the project in Android Studio.
3. Build the project and install the APK on an Android device or emulator.

Features

The Contacts Android App includes the following features:

1. Contact List: Displays a list of all saved contacts.
2. Add Contact: Allows users to add a new contact with details such as name, phone number, email, etc.
3. View Contact: Displays the details of a specific contact, including their name, phone number, email, etc.
4. Edit Contact: Enables users to modify the information of an existing contact.
5. Delete Contact: Removes a contact from the list.

Architecture

The Contacts Android App follows the Model-View-ViewModel (MVVM) architectural pattern. It adheres to the guidelines and best practices taught in the Android Studio class. The app's structure consists of the following components:

1. Model: Represents the data model and includes classes such as Contact, which defines the contact information.
2. View: Handles the user interface and includes activities, fragments, and layout XML files.
3. ViewModel: Acts as a bridge between the View and the Model. It provides data to the View and handles user actions.

Libraries and Dependencies

The Contacts Android App utilizes the following libraries and dependencies:

- Android Jetpack: Provides a set of libraries and tools for building Android apps.
    - Room Persistence Library: Enables local database storage for managing contacts.
    - RecyclerView: Used for displaying the contact list in a scrollable manner.
    - LiveData: Allows observation of data changes and updates the UI automatically.
    - ViewModel: Manages and retains UI-related data across configuration changes.

Usage

1. Launch the Contacts Android App on your Android device.
2. The app will display the list of existing contacts.
3. To add a new contact, click on the "Add Contact" button and provide the required details.
4. To view the details of a specific contact, click on the contact's name in the list.
5. To edit a contact, open the contact details and click on the "Edit" button.
6. To delete a contact, open the contact details and click on the "Delete" button.

Future Improvements

Possible enhancements for the Contacts Android App could include:

- Search functionality to find contacts based on specific criteria.
- Sorting options to arrange the contact list alphabetically or by other attributes.
- Ability to add profile pictures for contacts.
- Integration with other services or APIs for importing and exporting contacts.

Conclusion

The Contacts Android App is a practical implementation developed for an Android Studio class. It provides essential features for creating, viewing, editing, and deleting contacts. By following the documentation and utilizing the provided features, users can effectively manage their contact information.