

Design Pattern:

- The designated design pattern can be found within the following folder sequence upon opening the final folder of the entire app.
 - *App > app > src > main > java > com > example > contact*
 - The **ContactDB.java** class is a **singleton class**.
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Test Classes:

- All test classes can be found in the following folder sequence upon opening the final folder of the entire app.
 - *App > app > src > androidTest > java > com > example > contact*
 - AU_CallButtonTest.java
 - Tests the intent of all call buttons within the individual contact page. This includes the main call button and the call buttons specific to the cell, home, and work phone numbers.
 - Checks to see if the button will take the user to the phone app.
 - TN_TextButtonTest.java
 - Tests the intent of all text buttons within the individual contact page. This includes the main text button and the text buttons specific to the cell, home, and work phone numbers.
 - Checks to see if the button will take the user to the SMS app.
 - MA_EmailButtonTest.java
 - Tests the intent of the main email button within the individual contact page.
 - Checks to see if the button will take the user to the email app.
 - KA_SaveButtonEnabledTest.java
 - Tests whether the save button is enabled based on whether the fields of a contact page are filled out when adding or editing a contact.
 - FF_SearchTest.java
 - Creates a new MainActivity test in order to see if the search bar is working.
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Instructions on how to Build in Android Studio:

1. Download zip folder containing app from GitHub.
2. Unzip folder on computer. If necessary, move the main folder to the appropriate location.
3. Open the main folder.
 - a. Open the folder labeled 'App'.
 - b. Inside the 'App' folder should be a folder labeled 'app'. This is the folder to be opened in Android Studio.
4. Wait for the app to build. Resolve any appropriate upon startup and ensure that the app is fully built before proceeding.

5. Press the 'Run' button (the green 'play' button). Wait for the emulator to load and for the app to start running.
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Instructions on how to Use App in Android Studio:

1. When the app is first opened, it should display a scrolling list of saved contacts. If there are no pre-saved contacts, there should be no list.
2. To create a new contact:
 - a. Press the 'Add' button, which is a circle with a '+' symbol in it. This should take you to a page with empty contact parameters to fill out.
 - b. Fill in at least one of the following parameters.
 - i. Name
 - ii. Cell (number)
 - iii. Home (number)
 - iv. Work (number)
 - v. Email
 - vi. Address
 - c. If you wish to stop creating a new contact, press the 'CANCEL' button at any time.
 - d. Otherwise, press 'SAVE' to finish creating the document.
3. To view an individual contact's information:
 - a. In the main page of the app, scroll to the desired contact.
 - b. Press on the contact's name (or primary information).
 - c. This will take you to the individual contact's page, which displays all the available information for the contact.
4. To edit a contact's information:
 - a. In the main page of the app, scroll to the desired contact.
 - b. Press on the contact's name (or primary information) to view the contact's individual page.
 - c. Press on the "EDIT" button, enter the desired change(s).
 - d. Press on "save" button to save the change(s).
5. To call a contact:
 - a. Click on the contact name in the contact list, it takes you to a new page
 - b. Select the contact number (cellphone, home number, work number)
 - c. Click on the call icon to make call
 - d. First time use, it will ask for permission, click on " allow"
6. To text a contact:
 - a. In the main page of the app, scroll to the desired contact.
 - b. Select the contact's name (or primary information) to view the contact's individual page.
 - c. If the contact has at least one phone number parameter filled out, the call and text buttons will be enabled.

- i. Press the 'text' icon, which will take you to the SMS app to text the contact.
 - d. Otherwise, the 'text' button will be disabled, and you will not be able to text the contact unless you edit the contact to have at least one phone number.
7. To email a contact:
 - a. In the main page of the app, scroll to the desired contact.
 - b. Select the contact's name (or primary information) to view the contact's individual page.
 - c. If the contact has its email parameter filled out, the email button will be enabled.
 - i. Press the 'email' button, which will take you to the Email app to email the contact.
 - d. Otherwise, the 'email' button will be disabled, and you will not be able to email the contact unless you edit the contact to have an email address.
8. To delete a contact:
 - a. Select the contact you wish to delete.
 - b. Press on the 'DELETE' button.
 - c. Asks for confirmation.
 - d. To confirm, press on 'YES'.
9. To blacklist a contact:
 - a. Select the contact you want to blacklist.
 - b. Press on the 'BLACKLIST' button.
 - c. Asks for confirmation.
 - d. To confirm, press on 'YES'.
10. To take off a contact from blacklist
 - a. Select the blacklisted contact.
 - b. Press on the 'BLACKLIST' button.
 - c. A dialog box will pop up asking for confirmation to un-blacklist a contact.
 - d. To confirm, press on the 'YES' button.
11. To search / sort for a contact:
 - a. Enter a contact name in the search area.
12. To create a contact group:
 - a. Press the 'VIEW GROUPS' button on the main page of the app. This should take you to the list of contact groups.
 - b. Press the 'Add' button, which is a circle with a '+' symbol in it. This should take you to a page with a blank group name, group photo, and a list of available contacts to add.
13. To view a contact group's information:
 - a. Press the 'VIEW GROUPS' button on the main page of the app. This should take you to the list of contract groups.
 - b. Press the name of the desired contact group, which should take you to the contact group's individual page.
 - c. From there, you can view the group's name, the group photo, and the current members of the group.

14. To view a group member's contact information:

- a. Press the 'VIEW GROUPS' button on the main page of the app. This should take you to the list of contract groups.
- b. Press the name of the desired contact group, which should take you to the contact group's individual page.
- c. Tap the name of the desired group member within the group's list of members. This will take you to the contact's individual page, and you will be able to view the group member's information.

15. To edit a contact group's information:

- a. Press the 'VIEW GROUPS' button on the main page of the app. This should take you to the list of contract groups.
- b. Press the name of the desired contact group, which should take you to the contact group's individual page.
- c. Press the 'EDIT' button at the bottom of the page.
- d. From here, you can edit the group name, and group photo.
- e. You can also add new group members.
 - i. Select the desired contact NOT in the group to add. This will prompt a dialog asking for confirmation to add the selected contact.
 - ii. If 'YES' is pressed, the contact's name / primary information will appear in the list of members within the group.
- f. You can also delete group members.
 - i. Select the desired contact IN the group to delete. This will prompt a dialog asking for confirmation to remove the selected contact.
 - ii. If 'YES' is pressed, the contact's name / primary information will be removed from the list of members within the group.

16. To delete a contact group:

- a. Press the 'VIEW GROUPS' button on the main page of the app. This should take you to the list of contract groups.
- b. You can slide the card of the desired group to be deleted.
- c. Otherwise, you can press the name of the desired contact group, which should take you to the contact group's individual page.
- d. There is a 'DELETE' button at the bottom of the page. If pressed, a dialog will appear asking for confirmation to delete the contact group.
- e. If 'YES' is pressed, the contact group will be removed from the list of contact groups.

17. To search / sort for a contact group:

- a. Enter a group name in the search area.