Adam = Blue (4, 6)

Katrina = Green (1, 5)

Tiffany = Purple (2, 3, 7)

Mohammad = Red (8, 9)

Fahad Fayaz = Black (10, 11, 12)

3 Contact Manager

3.1 Contacts

3.1.1 Add, view, edit, delete contacts

3.1.2 Support multiple phone numbers

3.1.3 Support adding a photo label for a contact

3.1.4 Search contacts by contact name

3.1.5 Blacklist (block SMS and Phones)

3.1.6 Directly make phone calls and send SMS from a contact view

3.2 Contacts Organization

3.2.1 Add contact groups

3.2.2 Manage contact groups (add/remove contacts)

3.2.3 Sort contacts by name / group name

3.3 Contacts Storage (optional)

3.3.1 Export contacts to file

3.3.2 Load contacts from file

3.4 Other

3.4.1 Zoom in/out and scroll whenever necessary

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**Definitions, Acronyms, and Abbreviations**:

SMS: Short Message Service

Blacklist: A list of people or things that are regarded as unacceptable or untrustworthy and should be excluded or avoided. By blacklisting or blocking someone on your phone, you are preventing that person from being able to contact you either from calling or texting.

**Functional Requirements**:

1. The user shall be able to add, view, edit, and delete their contacts
   1. The system shall require one of the following information from the user to create a contact: Name, Address, Email, Phone Number, or Picture.
      1. The system shall not create a contact if all of the following information is blank: Name, Address, Email, Phone Number, and Picture.
   2. The system shall allow the user to view a contact by clicking on the tab corresponding to the contact organization.
   3. The system shall allow the user to edit the information they provided for a contact.
      1. The system shall delete a contact if the user edited the following contact information in a contacts profile to be blank: Name, Address, Email, Phone Number, and Picture.
         1. The system shall display a message prompting the user if they wish to leave the contact’s information blank and to proceed with the deletion of the contact
   4. The system shall allow the user to delete a contact and present a message prompting the user if they wish to proceed with the deletion.
   5. The system shall store the information in the contact manager app.
2. The user shall be able to add multiple phone numbers per contact
   1. The system shall allow the user to add multiple phone numbers for a single contact.
3. The user shall be able to add a photo label for a contact
   1. The system shall prompt the user for permission to access the phone's camera and gallery for photo options.
   2. The system shall allow the user to accept or deny permission to access the phone's camera and gallery.
   3. The system shall prompt the user for permission to access the phone's camera and gallery again if it was previously denied permission.
4. The system shall allow the user to blacklist a phone number
   1. The system shall prevent a text or call from being received by the phone number
   2. The system shall allow the user to unblock a phone number, now allowing the user to receive calls or texts from the previously blocked number
5. The system shall allow the user to directly make phone calls and send SMS from the contact view
   1. The system shall display a button to call a contact in the contacts profile in the contact manager
      1. The system shall display a popup to allow the user to choose which phone number to call if the contact has multiple phone numbers
      2. The system shall immediately call the number chosen by the user for that contact or call the only number under that contacts profile
      3. The system should go to voicemail if the phone number called is invalid or not answered
   2. The system shall display a button to send an sms to a contact in the contacts profile in the contact manager
      1. The system shall take the user to the sms app to send a message with the contacts phone number filled in as the receiver of the message
6. The system shall allow the user to add contact groups
   1. The system shall allow contacts to be added into groups such as work and family
   2. The system shall allow the user to view contacts saved in a group
   3. The system shall allow the user to
7. The system shall allow the user to manage contact groups.
   1. The system shall allow the user to add one or more contacts into a preexisting group.
   2. The system shall allow the user to remove one or more contacts into a preexisting group.
   3. The system shall allow the user to delete a group.
   4. The system shall allow the user to edit features of the group, such as the group name.
   5. The system shall allow the user to view a list of all members of the contact group.
   6. The system shall display the number of members
8. The system shall allow the user to search for a contact by name or group name
   1. The search function shall accept entry in English
   2. The search function should support entry in other major living languages
   3. The search function shall provide filtering options
   4. The search function shall provide wildcard search entry
   5. The search function shall provide options for sharing and printing the search result
9. The system shall allow sorting contacts by name and by group name
   1. The sorting function shall support both ascending/descending order
   2. The system shall sort based on contact type: personal, professional
   3. The sorting function should provide options for sorting based on zip code, area code, occupation, email address
   4. The sorting function shall provide options for sharing and printing the sorted list
10. The system should allow user to export contacts to file
    1. The system should prompt the user for permission to read contacts
    2. The system should read contacts one by one and create a vcf file
11. The system should allow user to load contacts from file
    1. The system should prompt the user for permission to write contacts
    2. The system should read vcf file and analyze it
    3. The system should create contacts based on the contents in vcf file
12. The system should allow user to scroll whenever necessary
    1. The system should allow user to use finger gestures to scroll and manage contacts

**Use Case Diagram**:

(Assuming we are using the combined diagram)

