My app is meant to be a reminder app which helps remind people of when to take their pills. It should have two screens. One screen has a scrollable list of alarms that can be deleted. The other screen lets you create new alarms
In general when developing for android your algorithm consists of the flow of control for the UI screens of the app and what the user should be able to do. I have shown my algorithm for this flow of control below.

algorithm for the flow of control of the app

1. **In main screen if user wants to create new reminder they should press button which creates reminder**

    1.1 button should open user to new screen which lets them specify options for their alarm

    1.2 user should be able to specify the days and time of alarm

        1.2.1 to specify the day user should have 7 checkboxes which represent each day

        1.2.2 to specify the time, use a standard android time selector widget that lets the user select from a standard 12h time

    1.3 if user wants to save alarm they should press a button which adds the alarm to a list of alarms in the main screen

        1.3.1 alarm data should be saved to database that stays after closing app

        1.3.2 alarm widget should be added to the main screen with a button that allows its widget and place in database to be deleted

        1.3.3 alarm widget should be added to users calendar with appropriate notifications at set times

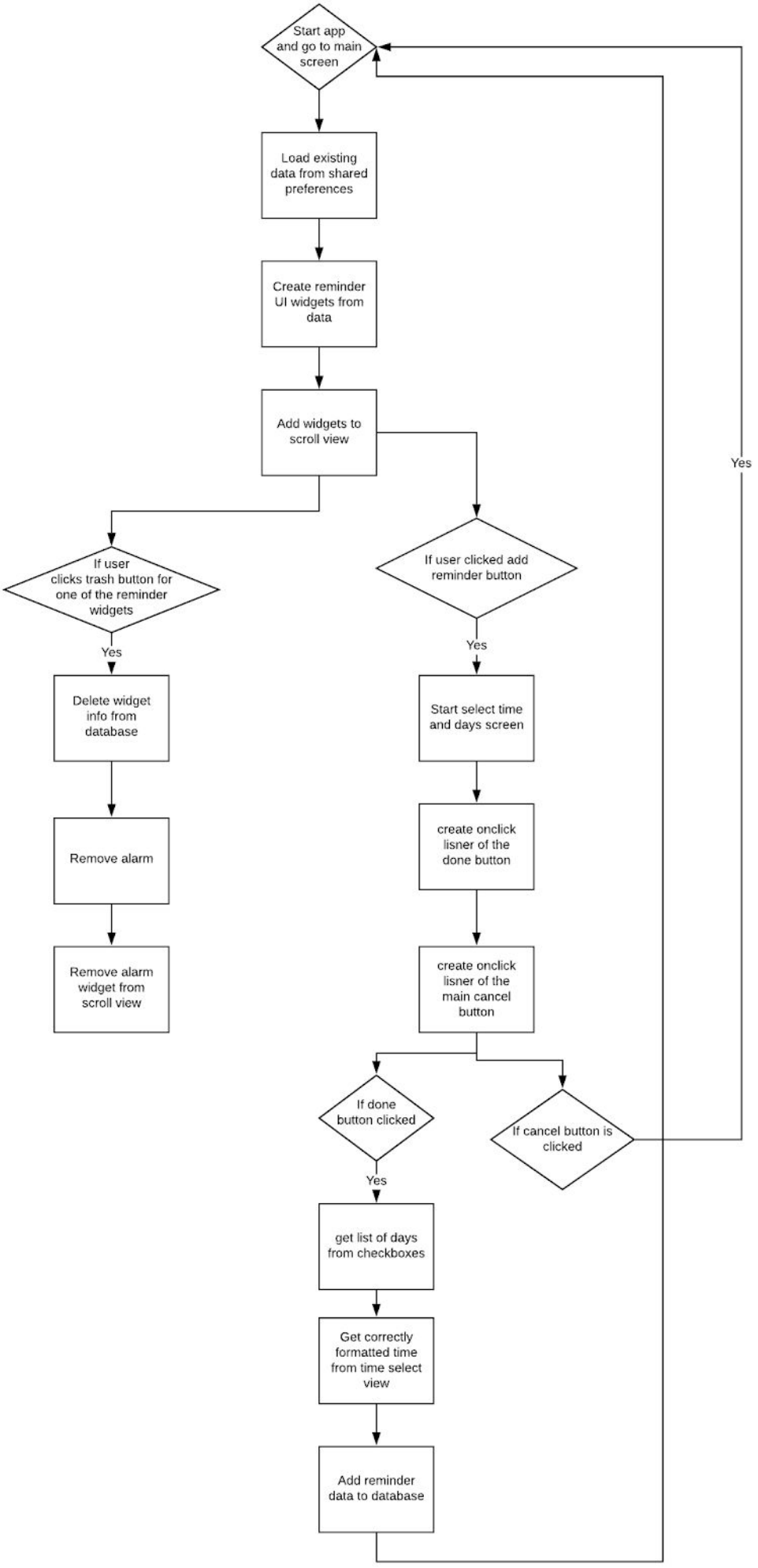
1. **Alternative -- In main screen if user wants to delete reminder, they can click the trash button on any of the reminder widgets**

        1.1 trash button removes widget

        1.2 trash button removes alarm from database

        1.2.3 trash button stops alarm from playing at the set times

Visualization of algorithm for the flow of control of the app


Start app and go to main screen
Load existing data from shared preferences
Create reminder UI widgets from data
Add widgets to scroll view
If user clicks trash button for one of the reminder widgets
Yes
Delete widget info from database
Remove alarm
Remove alarm widget from scroll view
If user clicked add reminder button
Yes
Start select time and days screen
create onclick lisner of the done button
create onclick lisner of the main cancel button
If done button clicked
Yes
get list of days from checkboxes
Get correctly formatted time from time select view
Add reminder data to database
If cancel button is clicked
Yes

Notes on missing features: because the app is only a demo app, I did not make it interface with google calendar or show push notifications. In addition, the UI may not scale well on other devices as I only have my s20 on hand so it is hard to test other screens.