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1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
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Simple Volume Widget

Description

Simple Volume Widget will be a simple yet useful volume widget. It will give you one click access to all the voice settings including ringtone, notifications, media, system, and voice call volume controls. The widget comes in different layouts and colors which can be set using the configuration activity.

Intended User

All android phone users who find it difficult to go to settings to find volume control setting. (My volume keys recently stopped working so its most useful for me)
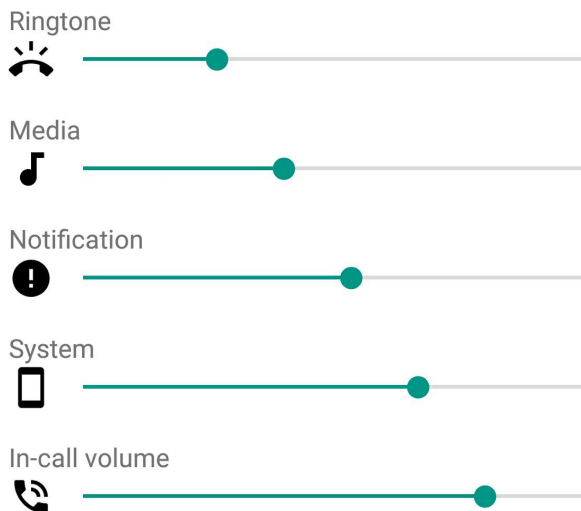
Features

The features are as follows:
- Clicking the app icon takes user to app's volume setting dialog in which user can set volume for media, notifications, system, phone calls, and ringtone.
- 1x3 widget with +, -, mute, and volume settings buttons
- 3x1 widget with +, -, mute, and volume settings buttons
- Configuration activity for each widget to help user choose the color of the widgets

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 Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Screen 1

Volumes

Ringtone

Media

Notification

System

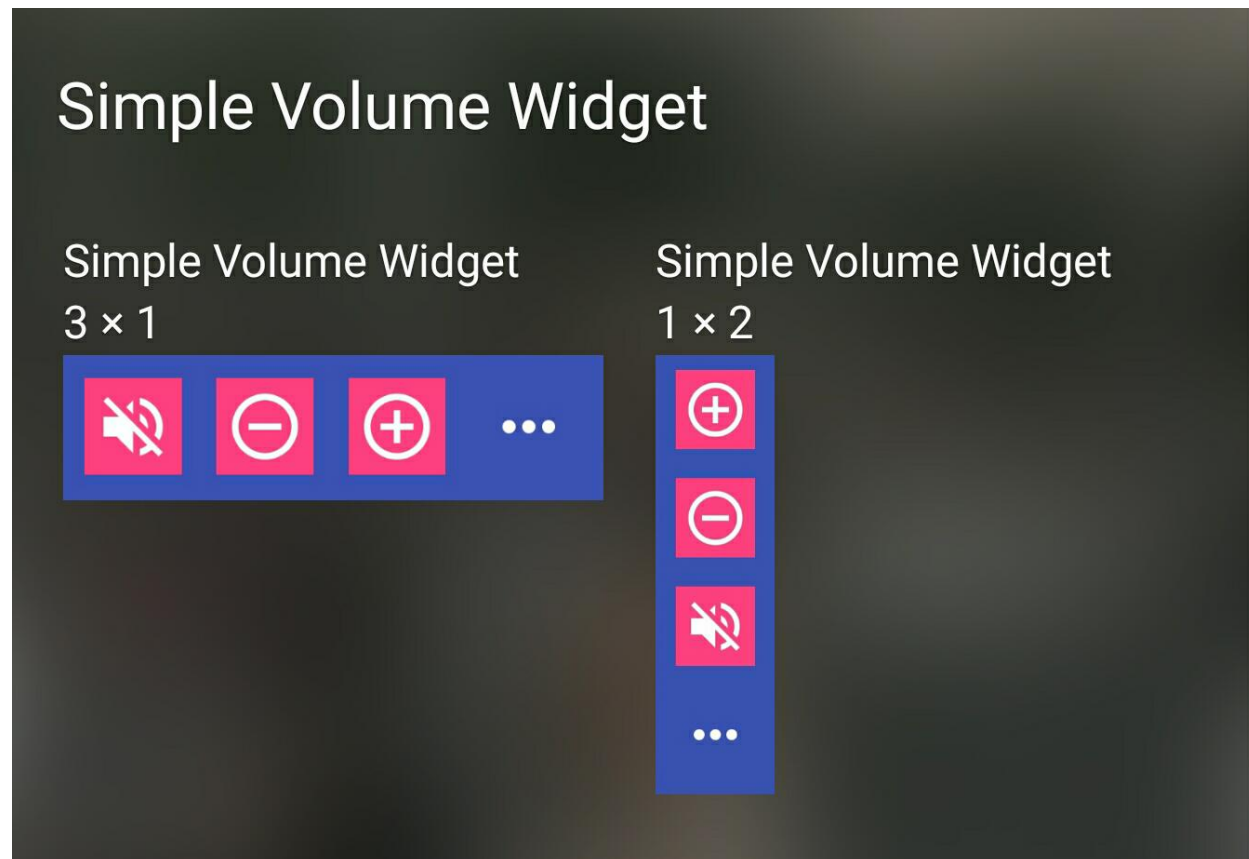In-call volume

The above activity will be a dialog activity which will open when the user launches the app and also presses the "…" icon on the widgets. This provides one step volume control. The idea is to keep the app experience as simple as Google.

Screen 2

The widgets will look similar to these. It has mute, +, -, and more buttons. The more button takes user to the screen 1. There will be a configuration activity which will let the user select colors of the widget. The colors will be from all across the material palette.

Key Considerations

How will your app handle data persistence?

Describe how your app with handle data. (For example, will you build a Content Provider or use Firebase Realtime Database?)
Content provider will be used to store user preferences of color. If the user deletes his widget and adds a new one, the default colors will be uploaded from the content provider.

Describe any edge or corner cases in the UX.

There are no edge cases in particular. The normal edge cases like, when the user presses back from the configuration activity of the widget, the widget is not added, will be handled.

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

Android data binding library will be used for Data binding. Android support library will be used to support material design. Moreover, guava will also be used.

Describe how you will implement Google Play Services or other external services.

Firebase notifications and firebase crash libraries will be used.

Next Steps: Required Tasks

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

Task 1: Project Setup

Steps:
Configure Firebase.
- Configure firebase notifications
- Configure firebase crash reporting

Task 2: Implement UI for the volume setting

Tasks
- Notifications volume setting
- System volume setting
- Media volume setting
- Ringtone volume settings
- Call volume settings

Task 3: Download translations of strings from AOSP

- Download translations of the strings from Android open source project and merge them into the widget so that people from all over the world can use the widget

Task 4: Download icons

Download material icons for
- Mute
- Plus
- Minus
- Notification, media, call, system, ringtone volumes

Task 5: Make configuration activities 1x2 and 3x1 widgets

The activity lets user choose the colors of the widget:
- Provide material colors for the user
- User can add the widget with configuration activity

Task 6: implement 1x2 and 3x1 widgets

The widgets will be implemented:
- 1x2 widget with mute, plus, minus, more buttons
- 3x1 widget with mute, plus, minus, more buttons
- widget preview images

Task 7: Use Firebase and Content provider
- Firebase will be used to set user property "favorite volume". It will help me analyze what volume settings users usually use. It will also be used for notifications and crash analysis.
- Content provider will be used to save user's color preferences.

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

Submission Instructions
- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
  - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

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