

[Description](#)

[Intended User](#)

[Features](#)

[User Interface Mocks](#)

[Screen 1](#)

[Screen 2](#)

[Key Considerations](#)

[How will your app handle data persistence?](#)

[Describe any corner cases in the UX.](#)

[Describe any libraries you'll be using and share your reasoning for including them.](#)

[Next Steps: Required Tasks](#)

[Task 1: Project Setup](#)

[Task 2: Implement UI for Each Activity and Fragment](#)

[Task 3: Create Activities](#)

[Task 4: Implement API](#)

[Task 5: Parse Response & Update UI](#)

[Task 6: Player Service](#)

[Task 7: Ad Network Integration](#)

[Task 8: User Actions](#)

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SunnyRadio

Description

SunnyRadio provides you the best possible online radio stations. Listeners can can enjoy most popular radio channels of their choice. They can also mark stations as favorite.

Intended User

Anyone who likes listening music.

Features

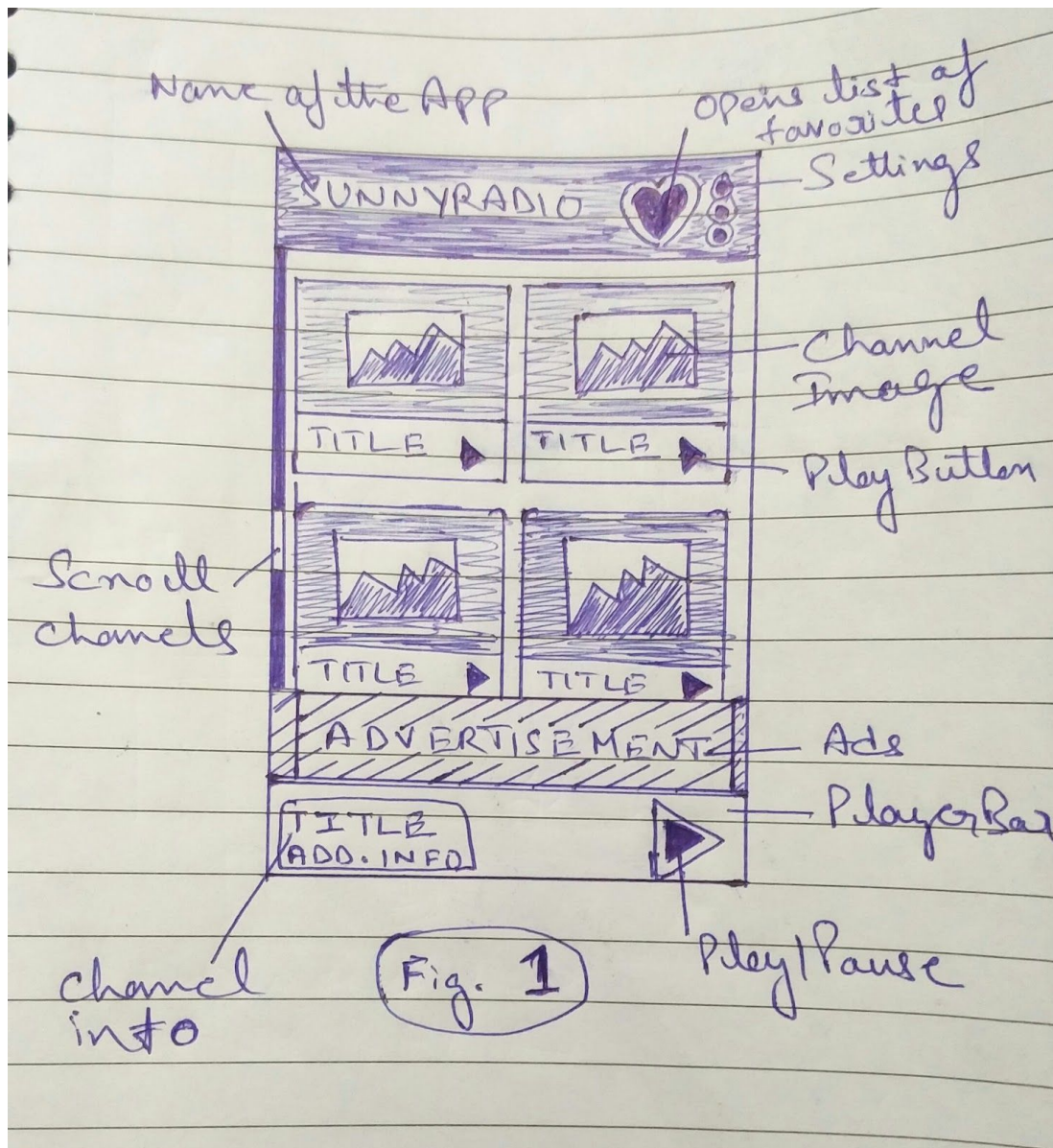
App will implement **SHOUTcast** API from <https://www.shoutcast.com/> as the provider of all the online radio channels. App will be displaying Top 500 Radio Stations from all over the world.

Main features of app:

- Top 500 Stations across the world
- Online Streaming of music
- Marks channels as favorite
- Play music in background

User Interface Mocks

Screen 1



Screen 1 shows the main screen of the app. It has following features:

1. App Bar
 - a. Title of the App
 - b. Button to open list of favorite channels(Heart Shape)
 - c. Settings Menu (Three Dots)
2. List of Channels (Grid)
3. Grid Item
 - a. Album Art
 - b. Title of the channel
 - c. Channel Info
 - d. Play Button
4. Ads (Panel for Ads)
5. Player(Bottom Bar)
 - a. Title of the selected channel
 - b. Channel Info
 - c. Play/Pause button

Screen 2

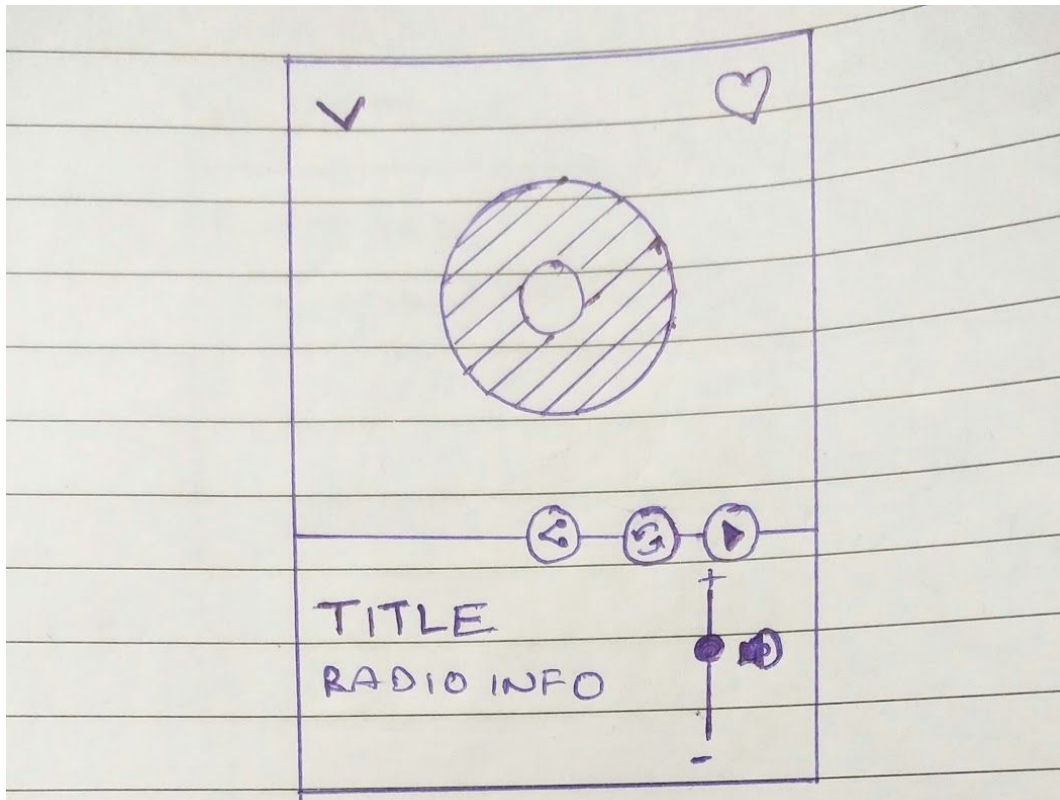


Fig. 2

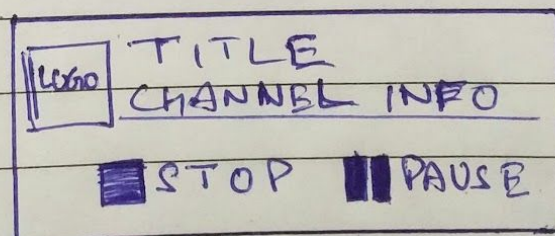


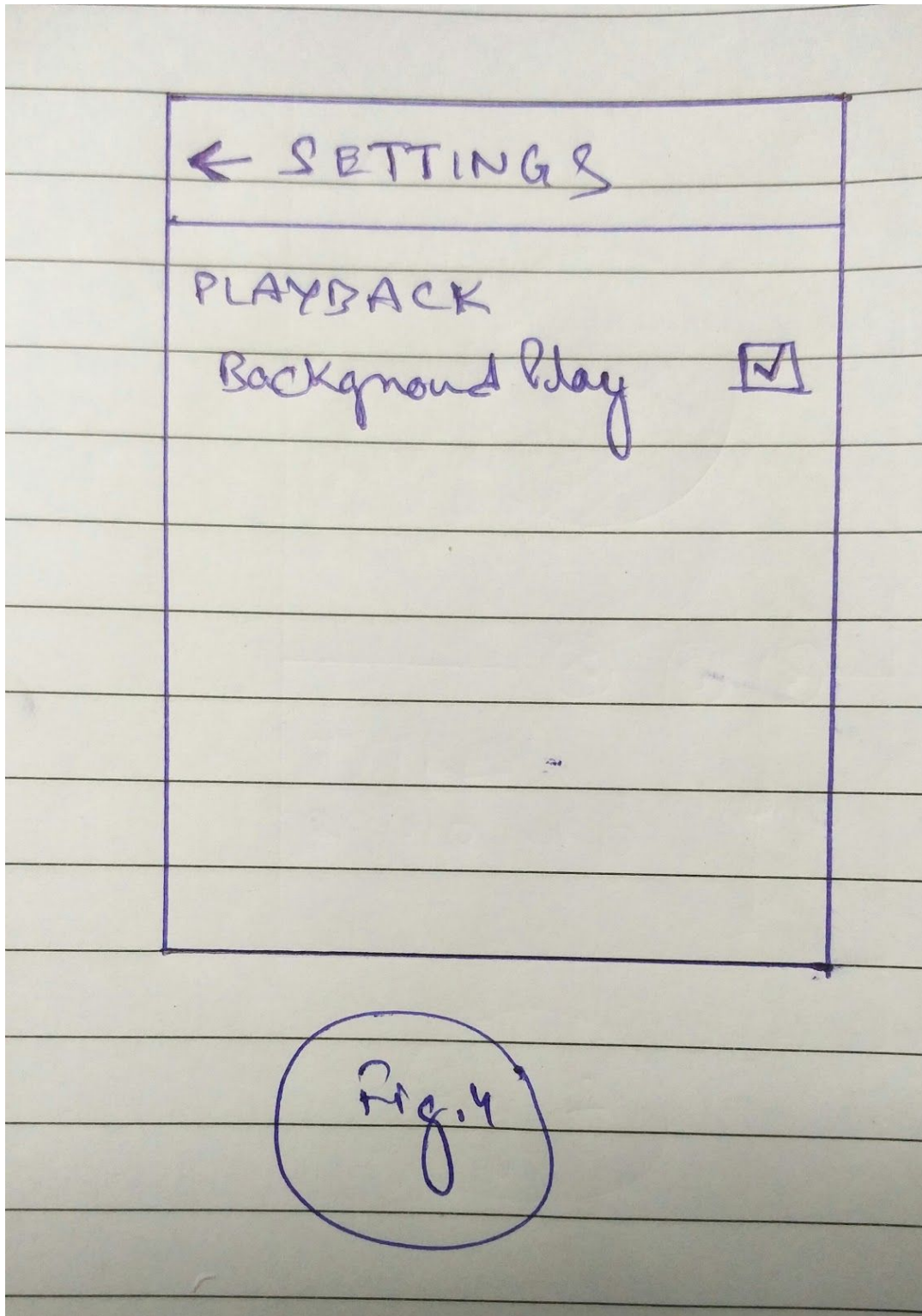
Fig. 3

Screen 2 (Fig. 2) shows the expanded view of player at the bottom when user touches the bar. It has the following things:

1. Favorite Button
2. Three buttons:
 - a. Share App
 - b. Refresh Channel
 - c. Play/Pause
3. Title of the Channel
4. Info of the channel
5. Volume control (Vertical Bar)

Screen 2 (Fig. 3) shows the view of the player in notification panel of the phone when user minimises the app.

Screen 3



Screen 3(Fig. 4) shows the Settings screen with option to choose to play in background.

Key Considerations

How will your app handle data persistence?

App will have a content provider to save and retrieve list of channels that are marked as favorites by user.

Describe any corner cases in the UX.

App will continue to work in the background and continue to play even if the hits back button on the main screen. Controls will be visible in the notification panel when app is closed. User can choose to play app in the background from settings.

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

Picasso will be used to display and cache images received from server for each channel to reduce complexity for image caching on local.

GSON will be used to parse json from webservice response to reduce overhead of manual parsing.

AdMob SDK to show ads.

Next Steps: Required Tasks

Task 1: Project Setup

1. Setup project in Android Studio.
2. Choose min sdk 15 and Target 23.
3. Create Repo on Github

Task 2: Implement UI for Each Activity and Fragment

Create layout.xml:

- Build UI for MainActivity
- Build UI for Player Activity
- Settings Activity

- Notification Player View
- Favorites Activity

Task 3: Create Activities

1. Create MainActivity
2. Create GridView Custom Adapter
3. Create Player Fragment
4. Create Notification Class

Task 4: Implement API

1. Implement Shoutcast API
2. Create Connection Class
3. Call Webservice
4. Parse Response
5. Update UI

Task 5: Parse Response & Update UI

1. Take response from webservice
2. Use Gson library to parse response
3. Update UI on all activities

Task 6: Player Service

1. Create Player service to run in background
2. Handle User Actions

Task 7: Ad Network Integration

1. Implement Admob SDK
2. Show Banner Ads at Bottom

Task 8: User Actions

1. Play/Pause Action
2. Add to favorite Action
3. Volume Change
4. Player Bar expand/collapse