

Internet Radio App Documentation

Internet Radio App

Features

- Stream 10+ Internet Radio Stations (with station names and logos)
- Proper Switching between radio stations
- Volume Controls (increase/decrease audio volume)
- Background Audio Support (continue playing while app is minimized)
- Clean Stop and Play Handling (MediaPlayer properly released when switching)
- Radio Station Images (loaded dynamically)
- Background Audio Management using HandlerThread and Looper
- Modern UI using Jetpack Compose
- Proper Resource Cleanup on app exit

Project Structure

- MainActivity.kt: Main UI for selecting and playing radio stations
- RadioService.kt: Service that handles media playback on a background thread
- RadioViewModel.kt: ViewModel managing radio station list and UI states

How it Works

- A LazyColumn shows the list of radio stations.
- When a station is clicked:

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- If another station is playing, the app properly stops the previous one.
- MediaPlayer is used to stream audio from the internet.
- HandlerThread and Handler manage playback to avoid UI thread blocking.
- Volume Controls allow the user to change the playback volume dynamically.

How to Run

1. Clone the repository.
2. Open in Android Studio.
3. Sync Gradle.
4. Run the app on an emulator or real device with internet access.

Future Improvements

- Add Notification Controls (play/pause from notification)
- Add Favorite Stations feature
- Support Landscape Layout
- Display Station Meta Info (song title, artist, etc.)

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