Hello, future Pawxy team member!

This document provides comprehensive details on the first task assigned to you. Kindly read the instructions carefully and familiarise yourself with the related Figma design file to understand the task better. This will significantly aid you in successfully completing the task, bringing you a step closer to joining our Pawxy team. It's essential to submit error-free code and maintain high quality in UI implementation, ensuring pixel-perfect design and attention to detail.

The app consists of three stages: input, process, and output. In the input stage, the user can provide a YouTube video URL and select a destination folder to save the processed MP3 files. The process stage involves multiple steps to convert the YouTube video link into an MP3 file, including grabbing video info, downloading a high-quality media stream file from YouTube's server, converting the downloaded media stream into an MP3 file, and finally, moving/saving the processed mp3 file into the user-selected folder. Once the entire process concludes, we need to display a success or failure screen based on the process output.

Please find the detailed breakdown of each stage of app building below:

Initial Screen

Upon opening the app, the user will see this screen as mentioned in the Figma design. Here, the user can provide any YouTube video URL and select a destination folder for the MP3 file. Please note that the user should be able to choose any folder from their phone storage or microSD card. Once the user clicks the Download button, they should be directed to the Grabbing Screen.

Grabbing Screen

When the user provides the necessary information and clicks the download button, they will be taken to the grabbing screen. You can use the initial screen for this as well. Using the yt-dlp library, grab YouTube video information like the title, thumbnail, number of videos, likes, and the high-quality media stream containing the audio stream for the MP3 file. While yt-dlp is developed in Python, you still have to use it to grab YouTube video information.

When entering the grabbing screen, disable all three user interaction elements to prevent user access, as shown in the Figma design. If the video information is successfully grabbed, proceed to the download screen. In case of failure, display the toast message "Failed to grab video info" and release all three user interaction elements to let the user edit the required input and resubmit.

Download Screen

In this screen, display the video title, thumbnail, number of views, and likes, and show the current download progress, exactly as illustrated in the Figma design. Use the OkHTTP library to download the media stream into the user's mobile. If the media stream is successfully downloaded, proceed to the convert screen. Otherwise, go to the failure screen to display the failure message with the exact reason for the failure.

Convert Screen

Having downloaded the source media file, use ffmpeg to convert this media file into an MP3 file and display the conversion progress as shown in the Figma design. If the conversion is successful, proceed to the saving screen. If not, go to the failure screen and display the error message with the exact reason for the failure.

Saving Screen

We have the processed mp3 file in our app's private directory. It now needs to be moved to the user-selected destination folder. When saving an mp3 file into the destination folder, use the video title, excluding special characters, symbols, and emojis. For instance, if the video title is "Royalty ~ Free 🎵 Müsic", the output should be "Royalty Free Music.mp3". If a file with the same name already exists, save the new file with suffixes like " (1)", " (2)". For example, instead of "Royalty Free Music.mp3", you should save it as "Royalty Free Music (1).mp3". While moving the mp3 file from the app's directory to the destination folder, display the file moving progress as shown in the Figma design.

If the mp3 file is successfully saved into the destination folder, proceed to the success screen. Otherwise, proceed to the failure screen to display the error message with the exact reason for the failure.

Success Screen

Once the mp3 file is successfully processed, display the UI as shown in the Figma design. Also, include a button at the bottom of the screen to allow the user to convert another mp3 file as shown in the Figma design. When the user clicks on this button, they should be directed to the initial screen to convert a new video URL into an mp3 file.

Failure Screen

In case of any failure during the mp3 file processing stage, direct the user to this screen and display an error message as shown in the Figma design. Similar to the success screen, provide a button at the bottom of the screen to allow the user to convert another mp3 file as shown in the Figma design. When the user clicks on this button, they should be directed to the initial screen to convert a new video URL into an mp3 file.

Conclusion:

In this task, you will engage with various technologies, like importing Python projects into our Android app to grab YouTube video info, depending on the powerful ffmpeg library to convert the downloaded media stream into an mp3 file, and saving the processed file into any destination folder in phone storage or a microSD card. To implement all these processes, you have to build a smooth UI with pixel-perfect clarity to match the Figma design.

This task will help us understand your research, programming, logical thinking, coding, and UI implementation skills. Aim to write clean, highly readable, well-structured, and bug-free code to ensure a smooth and cool app flow. Strive to maintain attention to detail to build an output with pixel-perfect clarity to match the Figma design.

Your adherence to these precautions and maintaining quality code will help us tremendously in moving one step closer to successfully hiring you into our Pawxy company.

At Pawxy, we prioritise quality to build and deliver great products to the world with international standards. Hence, try your best to meet our expectations for a successful onboarding into our Pawxy team.

Good luck,
Chandra N.