

# Rehab: Audio Recorder, Splitter, and Downloader

## Overview

**Rehab** is a powerful command-line tool that helps you **download audio**, **record system input**, and **manage audio files** efficiently. It supports various sources like YouTube, RSS feeds, and more. This project leverages the power of **yt-dlp**, **ffmpeg**, and Python libraries to streamline your audio processing needs.

## Features

- **Download audio** from YouTube, text files, or podcast RSS feeds.
- **Record audio** from system input using **ffmpeg**.
- **Automatic sectioning** when downloading multiple files from text input.
- **Progress bars** and rich console formatting for an intuitive user experience.
- **Comprehensive mini-manual** for quick help and command usage.

## Installation

### Prerequisites

Ensure you have the following installed:

- Python 3.8+ (including **pip**)
- **ffmpeg** (for audio recording)
- **yt-dlp** (for audio downloading)

### Steps

1. Clone the repository:

```
git clone https://github.com/your-username/rehab.git
cd rehab
```

2. Install dependencies:

```
# Create a virtual environment
python3 -m venv renv

# Activate the environment
source renv/bin/activate # For Linux/macOS
renv\Scripts\activate    # For Windows

# Install dependencies
python3 rehab.py install
```

# Usage

Run the `rehab.py` script using the command-line interface. Below are the available commands:

## 1. Install Dependencies

Install all required Python libraries from `requirements.txt`:

```
python3 rehab.py install
```

Add `--verbose` to see detailed logs:

```
python3 rehab.py install --verbose
```

## 2. Download Audio

### From a Single URL

```
python3 rehab.py download <URL> -o <output_file>
```

Example:

```
python3 rehab.py download https://www.youtube.com/watch?v=xyz123 -o ./downloads/
audio.mp3
```

### From a Text File

```
python3 rehab.py download --file <file_path> -d <output_dir>
```

Example `file_path` content:

```
[songs]
"song1.mp3" "https://www.youtube.com/watch?v=xyz123"
"song2.mp3" "https://www.youtube.com/watch?v=abc456"
```

Command:

```
python3 rehab.py download --file ./music_list.txt -d ./downloads
```

### From an RSS Feed

```
python3 rehab.py download --rss <feed_url> -d <output_dir>
```

Example:

```
python3 rehab.py download --rss https://example.com/feed.xml -d ./podcasts
```

## 3. Record Audio

Record audio from your system's input device:

```
python3 rehab.py rec --name <output_name> -o <output_dir>
```

Example:

```
python3 rehab.py rec --name my_recording -o ./recordings --device default --
duration 30
```

## 4. Show Manual

View the comprehensive manual:

```
python3 rehab.py manual
```

## Examples

### Bulk Download

```
python3 rehab.py download --file ./my_playlist.txt --use-title -d ./music
```

### Podcast Download

```
python3 rehab.py download --rss https://example.com/feed.xml -d ./podcasts
```

### Record Audio

```
python3 rehab.py rec --name session_01 -o ./recordings --duration 60 --bitrate 192k --sample-rate 48000
```

## Project Structure

```
rehab/
├── rehab.py           # Main CLI program
├── requirements.txt   # Python dependencies
├── README.md          # Documentation (this file)
├── recordings/        # Directory for audio recordings (created on runtime)
└── downloads/        # Directory for downloaded audio (created on runtime)
```

## Troubleshooting

- **yt-dlp not found:** Install it using:

```
pip install yt-dlp
```

- **ffmpeg not found:** Ensure it's installed and added to your system's PATH.
- **Permission issues:** Use appropriate permissions for directories or run with **sudo** if necessary.

## Contributing

Feel free to contribute to this project by:

1. Reporting bugs
2. Suggesting new features
3. Submitting pull requests

## License

This project is licensed under the MIT License. See the `LICENSE` file for details.