

# Voice-Command User Manual

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- Github Link : <https://github.com/turan1609/voice-record-filtering-app>



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# 1. Introduction

## a. The Aim of This Software

This software aims to enable users to:

- Record audio.
- Securely store the recorded audio.
- Filter recordings based on gender, name, language, and word.
- Access filtered recordings easily.
- Download data as a CSV file or audio files directly.
- View amplitude graphs of the recordings.

## b. Target Audience

- **Individual Users:** Manage and analyze their audio recordings effortlessly.
- **Educators and Students:** Utilize audio data for language learning or speech analysis.
- **Researchers and Academics:** Perform audio data analysis and statistical evaluations.
- **Corporate Users:** Call centers, media teams, or businesses storing and processing audio data.

## 2. System Requirements

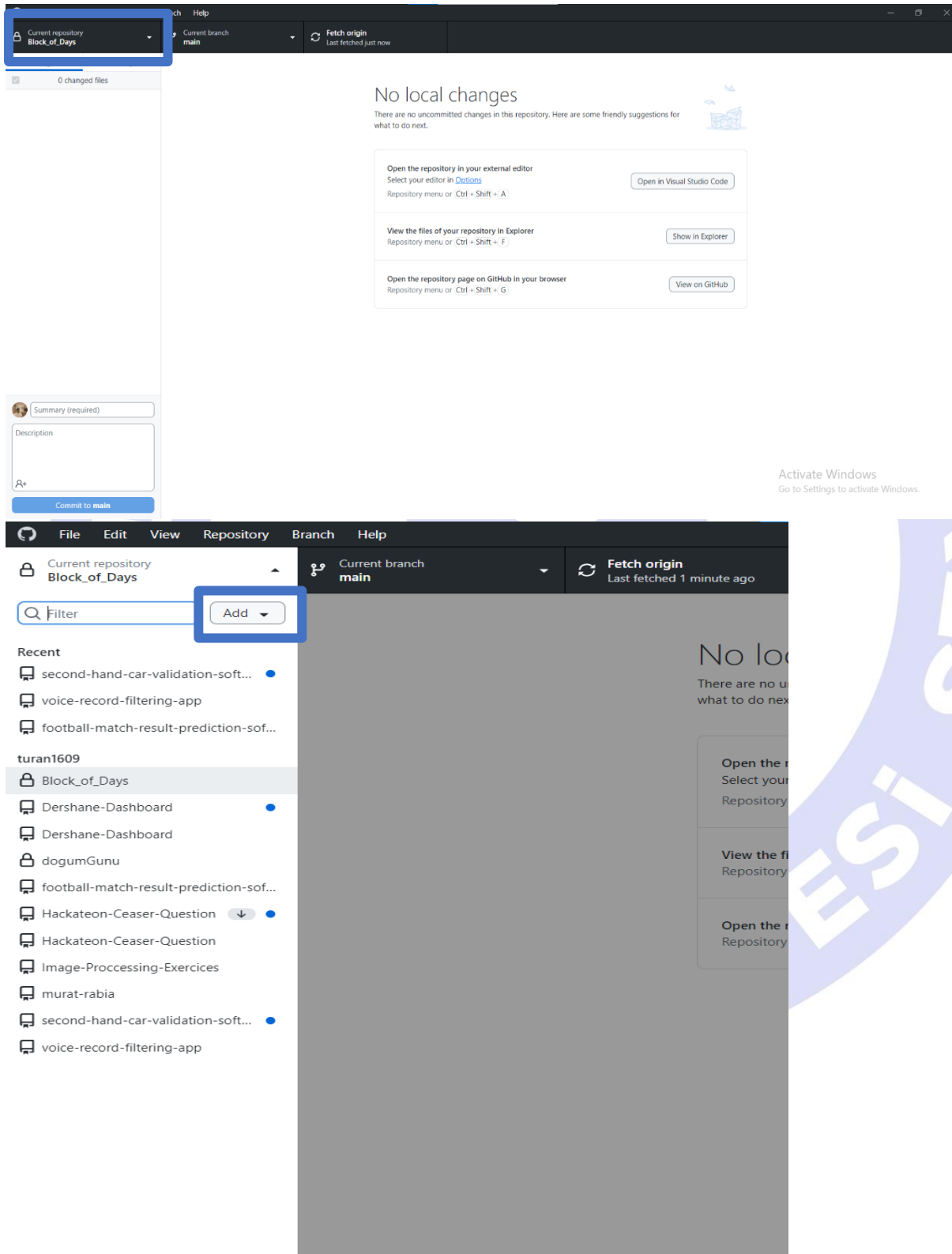
- **Software Dependencies:**
  - Python: 3.12.
  - Libraries: PyQt5, Matplotlib, numpy, pydub, shutil, wave, librosa.
  - Audio Format Support: Libraries for processing .wav and .csv files.
- **Additional Requirements:**
  - Microphone: A standard microphone (built-in or external) for audio recording.

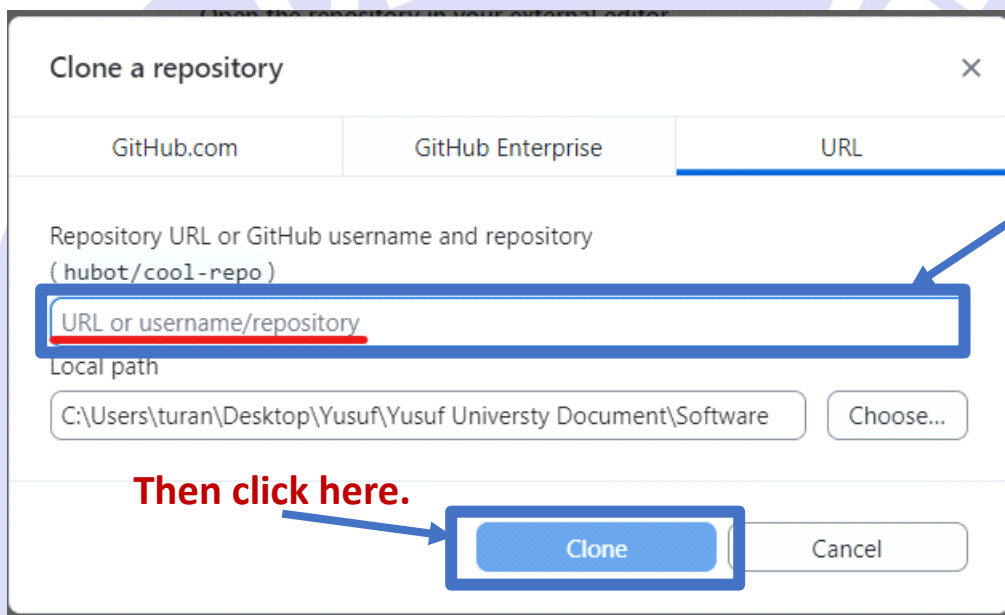
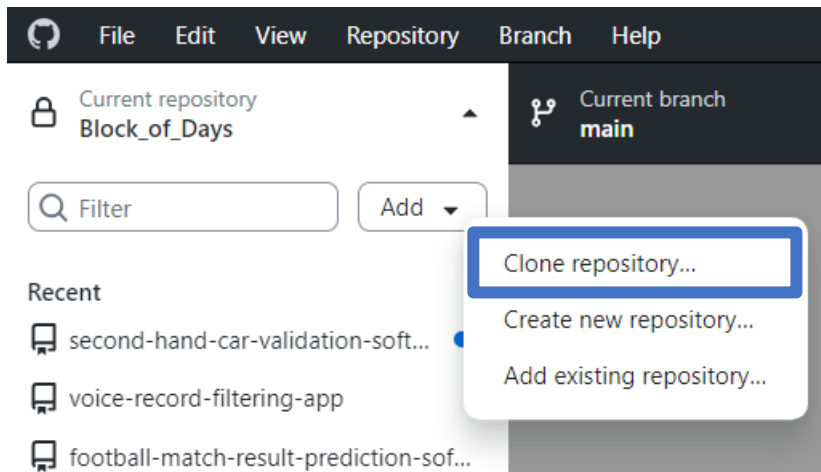
**Note:** These system requirements are based on the development environment. Compatibility with other systems may vary.



### 3. Installation Guide

1. Access the GitHub repository: [Voice Record Filtering App](#).
2. Clone (download) the source code using GitHub Desktop (Windows) or your terminal (Linux/macOS).





Enter the URL here.

Then click here.

3. Compile the source code:
  - Open the folder containing the source code in your IDE.
  - In the main.py file, locate the "Libraries" section and install the listed libraries. Most IDEs provide an option to download missing libraries when hovered over.
4. Run the application using the IDE's "Run" button.

**Note:** For PyCharm users, refer to [PyCharm's Library Installation Guide](#) if you encounter issues.

## 4. User Interface Overview



The image shows a user interface for a voice recording application. It features a dark background with orange and white elements. On the left, there is a filtering section with four rows: 'Voice Language' with radio buttons for 'Turkish' and 'English'; 'Voice Gender' with radio buttons for 'Male' and 'Female'; 'Name' with a dropdown menu set to 'All'; and 'Commend' with a dropdown menu set to 'All'. Below these are four buttons: 'Filter Data', 'Show All Data', 'Download Data', and 'Clear Data'. In the center, there is a large, empty orange rectangular area for displaying audio data. At the bottom, there are three buttons: 'Download All Voices', 'Record Voice', and a 'Showed Data' label followed by a small orange box.

The user interface is designed for ease of use:

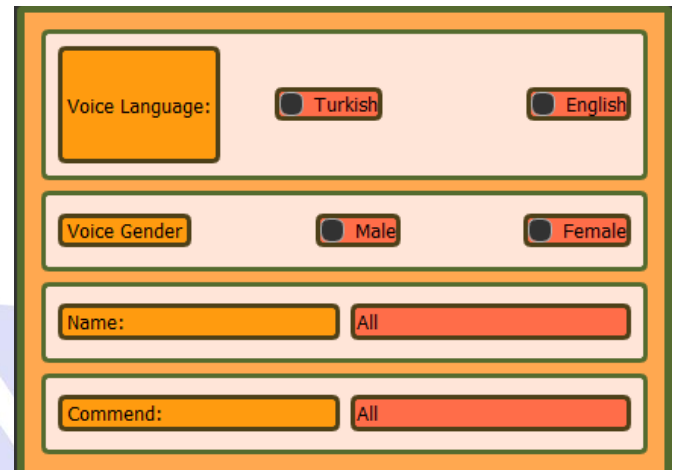
- **Top Left:** Filtering section.
- **Top Right:** Displays audio data.
- **Bottom Left:** Buttons for filtering actions.
- **Bottom Right:** Includes buttons for specific tasks and a label showing the number of displayed records.



## 5. Features and Functionalities

### 1. Filtering Section

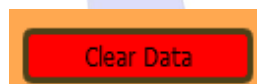
- Four filtering criteria:
  - **Audio Language**
  - **Audio Gender**
  - **Name**
  - **Word**
- **Fields must not be empty when applying filters; otherwise, an alert is displayed.**
- **Example:**
  - Select "Yusuf" (name).
  - Choose "Turkish" (language).
  - "Male" (gender) is auto-filled.
  - Select "Evet" (word).
  - Click "Filter Data" to display relevant results.



The filtering section interface consists of four rows of controls. The first row is for 'Voice Language' with radio buttons for 'Turkish' and 'English'. The second row is for 'Voice Gender' with radio buttons for 'Male' and 'Female'. The third row is for 'Name' with a text input field and a dropdown menu set to 'All'. The fourth row is for 'Commend' with a text input field and a dropdown menu set to 'All'.



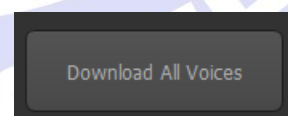
### 2. Clear Data



- Clears the data display area. Automatically clears old data when applying new filters.
- **Note:** Keep in mind that when you apply a new filter, the previously displayed data will automatically be cleared. This button is only for those who wish to see the area cleared.

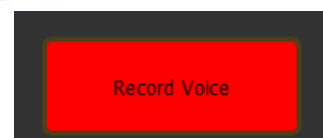
### 3. Download All Voices

- Downloads all audio files as .wav format.



### 4. Record Voice Button

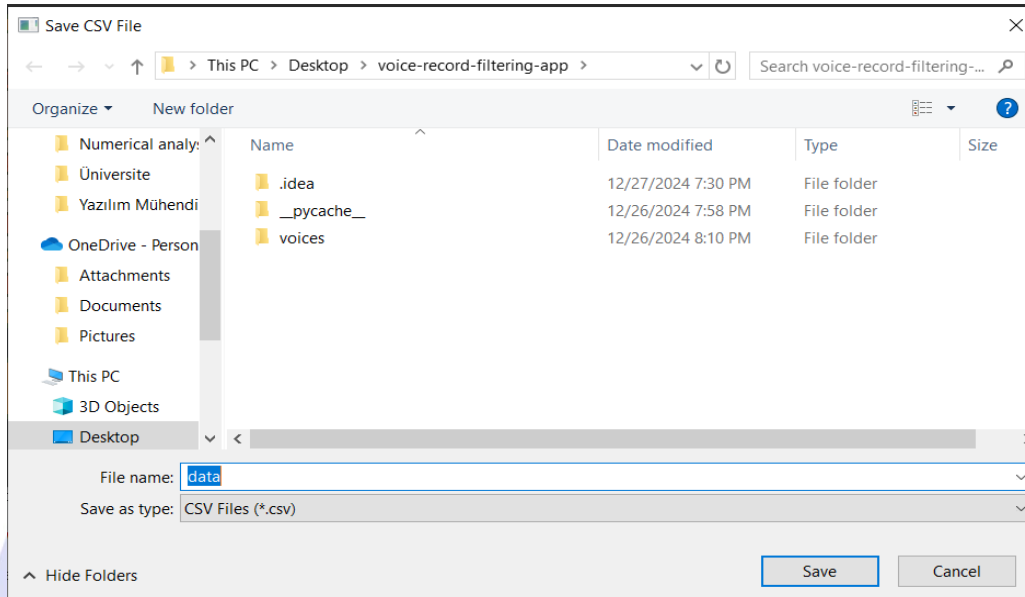
- Opens a new window for recording audio.





## 5. Download Data

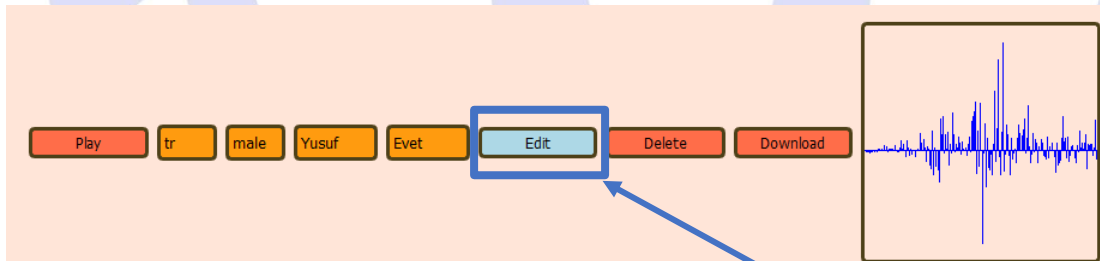
- Downloads visible files in CSV format.
- Allows choosing file name, type, and save location.



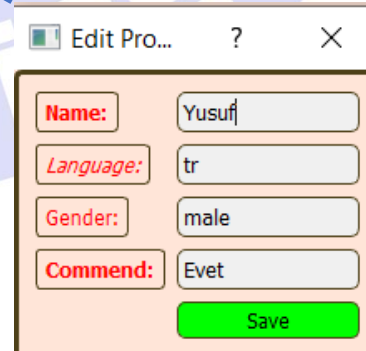
## 6. Voice Card

- Displays language, gender, name, word, and amplitude-time graph.

You can play the audio using the 'Play' button.



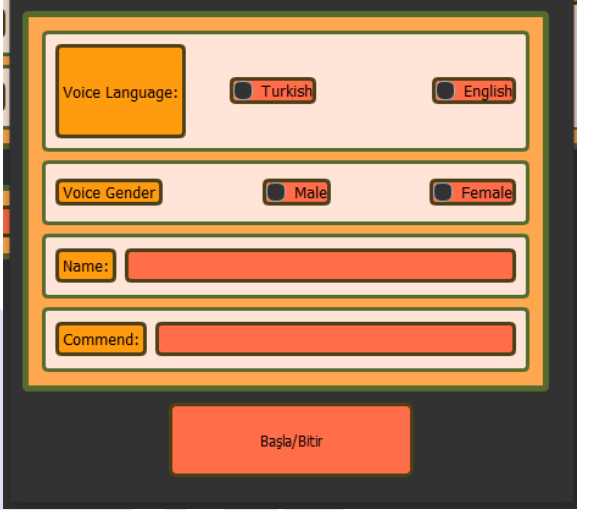
- The label 'tr' indicates the language of the audio.
- The label 'male' shows the gender of the person who recorded the audio.
- The label 'Yusuf' indicates the owner of the audio.
- The label 'Evet' represents the word in the audio.
- You can change these labels using the 'Edit' button.



## 6. Usage Instructions

### Record a Voice

1. Select audio properties.
2. Click "Start/Stop" to record/stop recording.
3. New names create new entries; subsequent recordings under the same name are appended.



The screenshot shows a mobile application interface for voice recording. It features a dark background with a light-colored rectangular area containing the controls. At the top, there's a 'Voice Language' section with two radio buttons: 'Turkish' (selected) and 'English'. Below this is a 'Voice Gender' section with two radio buttons: 'Male' (selected) and 'Female'. There are two text input fields: 'Name:' and 'Comment:'. At the bottom, there's a red button labeled 'Başla/Bitir' (Start/Stop).

## 7. Troubleshooting and Maintenance

### Common Issues and Fixes

1. **Application Does Not Start:**
  - Verify required libraries are installed: `pip install -r requirements.txt`.
2. **Amplitude Graph Not Displayed:**
  - Confirm Matplotlib is installed: `pip install matplotlib`.



## 8. References

- <https://stackoverflow.com/questions/tagged/pyqt5>
- [https://www.youtube.com/watch?v=97jyCxczg1Q&list=PLyaHWDDfgBPMQUBW95\\_P4KT3JcVclx4n](https://www.youtube.com/watch?v=97jyCxczg1Q&list=PLyaHWDDfgBPMQUBW95_P4KT3JcVclx4n)
- <https://medium.com/datarunner/librosa-9729c09ecf7a>
- <https://www.youtube.com/watch?v=iCwMOJnKk2c&list=PL-wATfevAMNqIee7cH3q1bh4QJFAaeNv0>
- <https://www.sqlite.org/docs.html>
- <https://doc.qt.io/qtforpython-6/>
- <https://www.youtube.com/watch?v=uyYfnnye7qE>
- <https://pandas.pydata.org/docs/>

