Voice Commend Database Creation User Manual

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GitHub Link:

https://github.com/RecepSamiOzdemir/software-engineering-project/raw/refs/heads/VoiceCommendDatabaseCreation/softwareLogin.zip

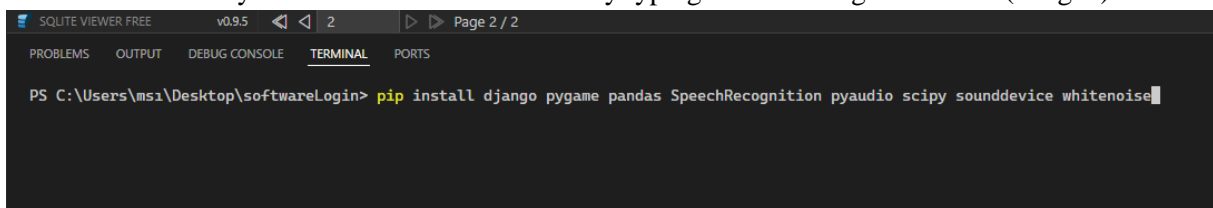**Table of Contents**

1 Introduction

- **Brief Overview**: This project focuses on creating a database to store and manage voice commands. It includes functionalities such as recording, searching, and playing audio commands in both Turkish and English.

- **Objectives and Goals**: The goal is to provide an efficient interface for users to record and retrieve audio commands using voice recognition technology.

- **Scope**: The system facilitates audio storage, search capabilities, and playback features within a user-friendly web application.

2 System Requirements
- Software Requirements
  - Operating System: Windows 10 or later, macOS 10.15 or later, Linux.
  - Development Tools: Visual Studio Code (or any preferred IDE).
  - Libraries:
    - Python 3.7 or later.
    - pip for Python package management.
  - Install the following packages using pip:
    - pip install django pygame pandas SpeechRecognition pyaudio scipy sounddevice whitenoise
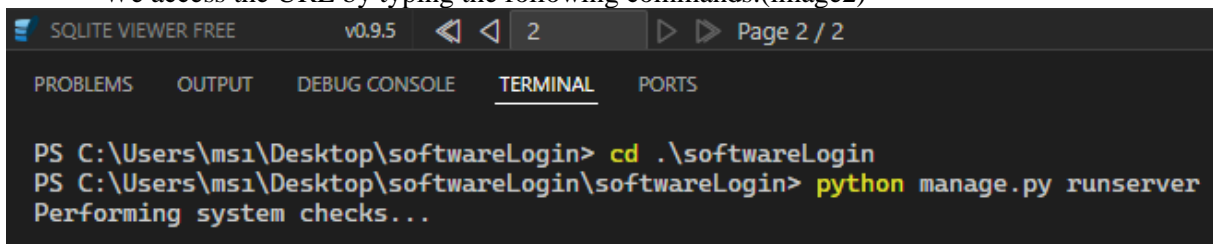
3 Installation Guide

- Download the project:

  - From GitHub, select "Download ZIP" from the "Code" section or use the DOWNLOAD
  - We use an IDE like Visual Studio Code. From the File menu, we select "Open Folder." We open the "softwareLogin" folder inside the downloaded file

- The necessary libraries should be installed by typing the following command. (image1)

- Image:1
- We access the URL by typing the following commands.(image2)

- Image:2

- We access our website by typing the URL into the address bar.(image3)


```
January 06, 2025 - 18:19:21
Django version 5.1.4, using set          in.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```
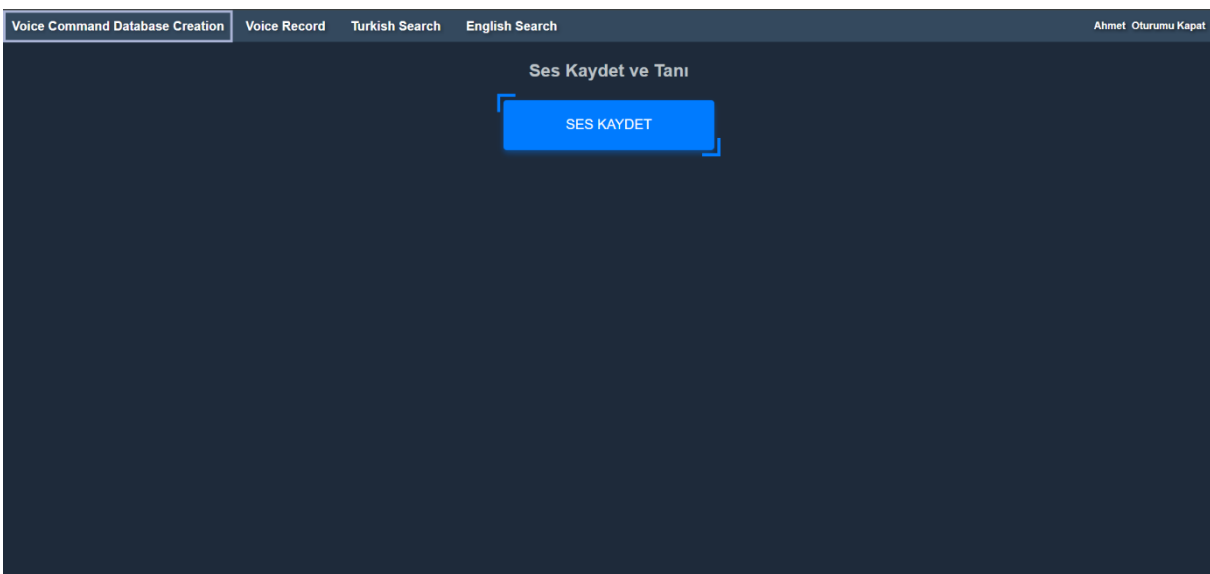Follow link (ctrl + click)
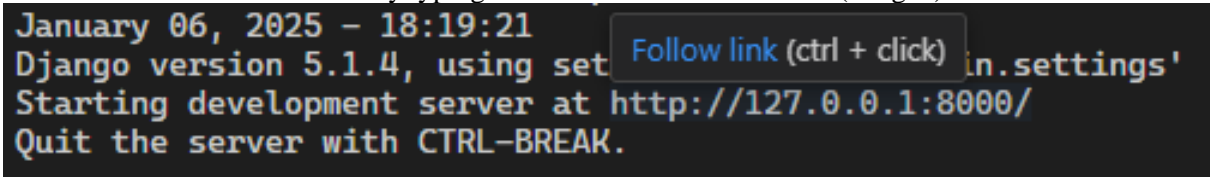
- Image:3

4 User Interface Overview

- **Main Screens:**
  - **Login Screen:** Allows user registration or login.(image4)
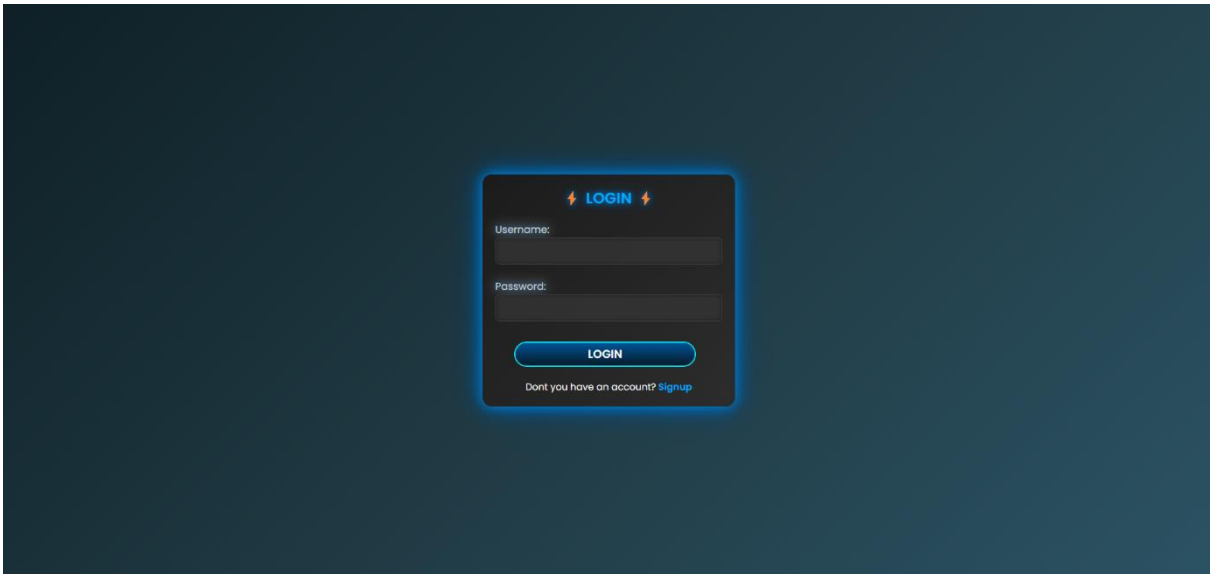
- Image:4

  - **Dashboard:** Displays options for recording, searching, and playing audio.(image5)
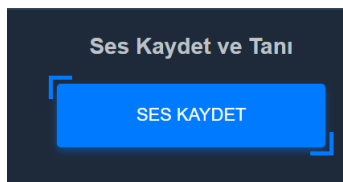

- Image:5

- **Navigation Structure:**
 - Clear buttons for each primary action, such as "Record Audio," "Search," and "Logout."(image6)

Voice Command Database Creation | Voice Record | Turkish Search | English Search | Ahmet Logout

- Image:6

- **Key Buttons:**
  - **"Record Audio" / "Ses Kaydet":** Records a 3-second audio clip.(image7)

Ses Kaydet ve Tanı

SES KAYDET

- Image:7

"Turkish Search" / "SESLİ KOMUTLA ARAMA YAP": Search database in Turkish.(image8)
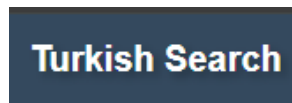
Turkish Search

- Image:8

- **"English Search" / "Search with Voice Command":** Search database in English.
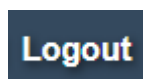

English Search
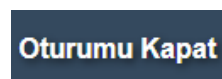
- Image:9

- **"SES ÇAL":** Plays the retrieved audio clip.

SES ÇAL
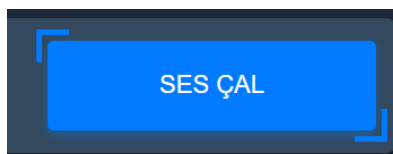
- Image:10

- **"Logout" / "Oturumu Kapat":** Logs out of the application.(image11,12)

Logout

Oturumu Kapat

- Image:11

- Image:12

5 Features and Functionalities

- **Primary Features:**
    - o User authentication (registration and login).
    - o Audio recording and database storage.
    - o Voice-based search in multiple languages.
    - o Audio playback functionality.
- **How Each Feature Works:**
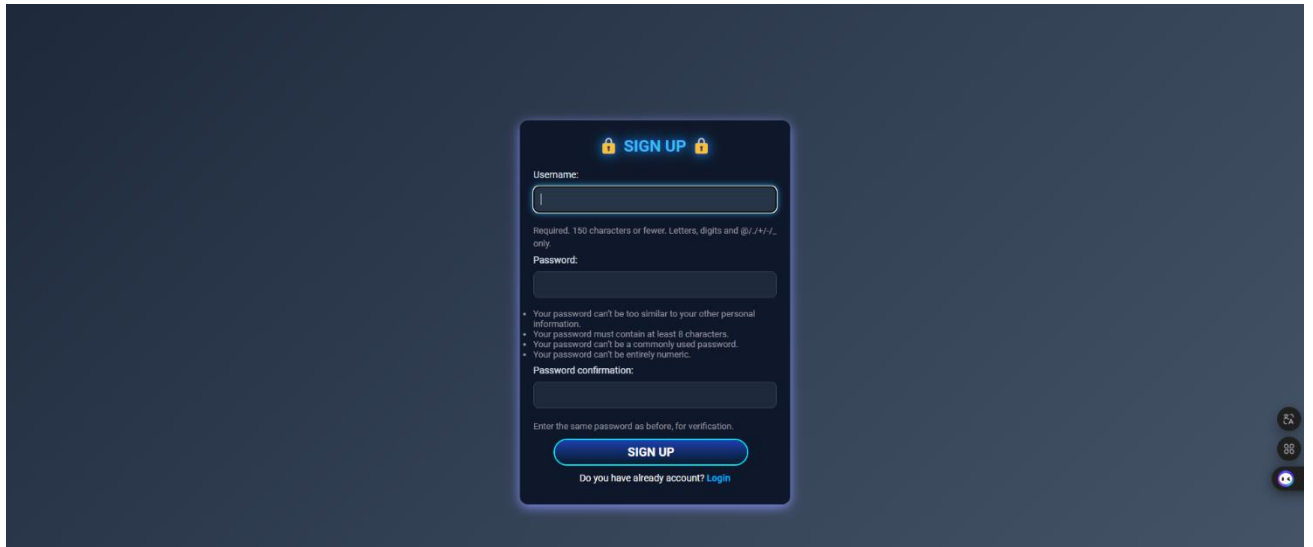   - o After login, users can record their commands, search the database, and listen to stored audio clips.

6 Usage Instructions

- When we visit the site, a login screen appears. If we don't have an account, we create one by clicking the signup button; if we already have an account, we log in directly.(image13)
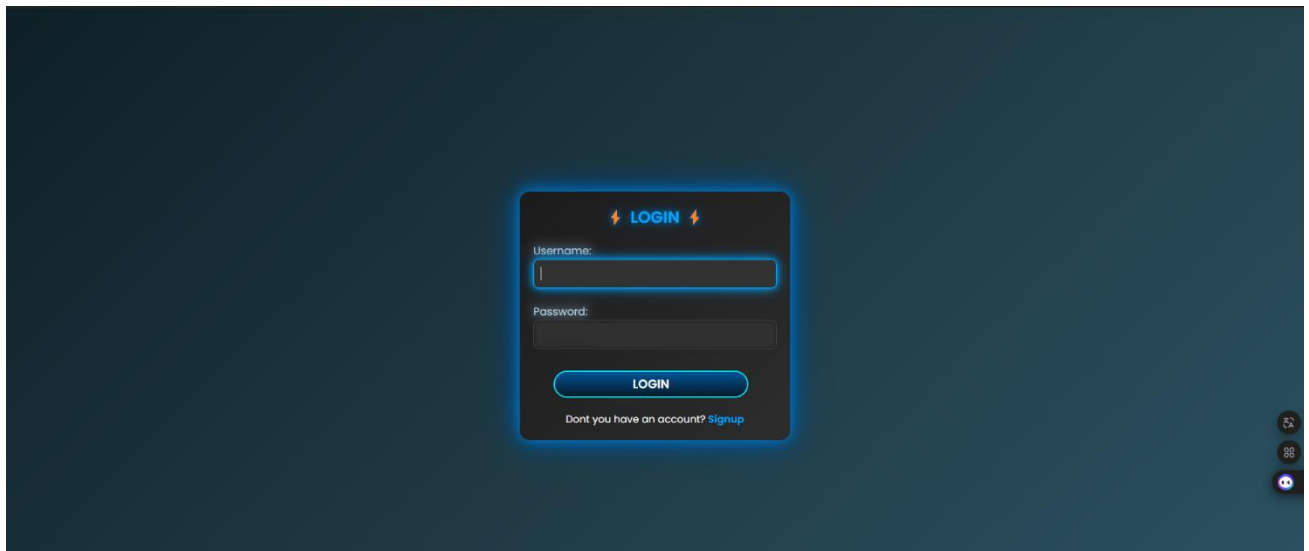
- **Image:13**

- **Username:**
    - o Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.
- **Password:**
    - o Your password can't be too similar to your other personal information.
    - o Your password must contain at least 8 characters.
    - o Your password can't be a commonly used password.
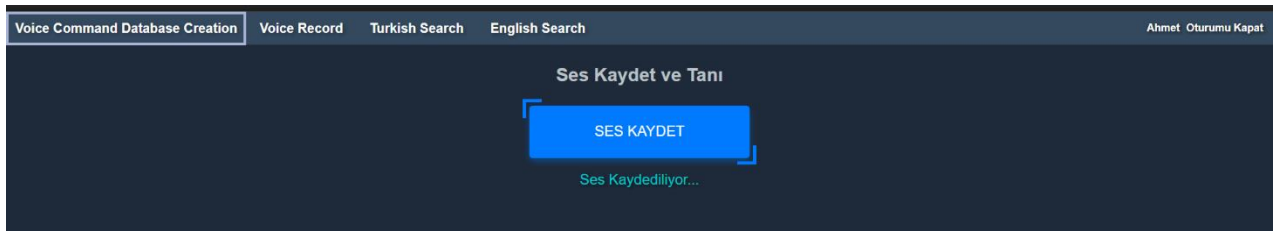   - o Your password can't be entirely numeric.
    - o (image14)

• **Image:14**

- After logging in, we are redirected to the page below.
- We can record a 3-second audio by pressing the "Record Audio" or "Ses Kaydet" button. The recorded audios are stored in the database.(image15,16,17)

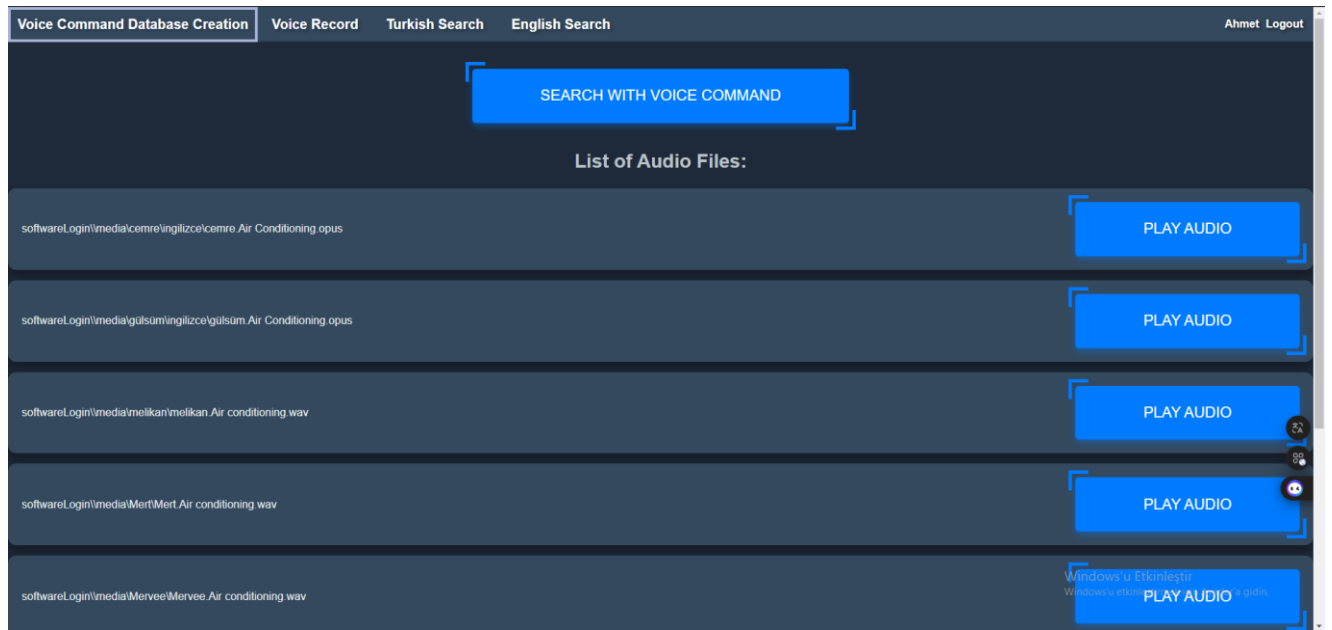• **Image:15**

• **Image:16**

• **Image:17**

- When we click the "Turkish Search" button, we can search the database by speaking Turkish words after pressing the "SESLİ KOMUTLA ARAMA YAP" button.(image18)
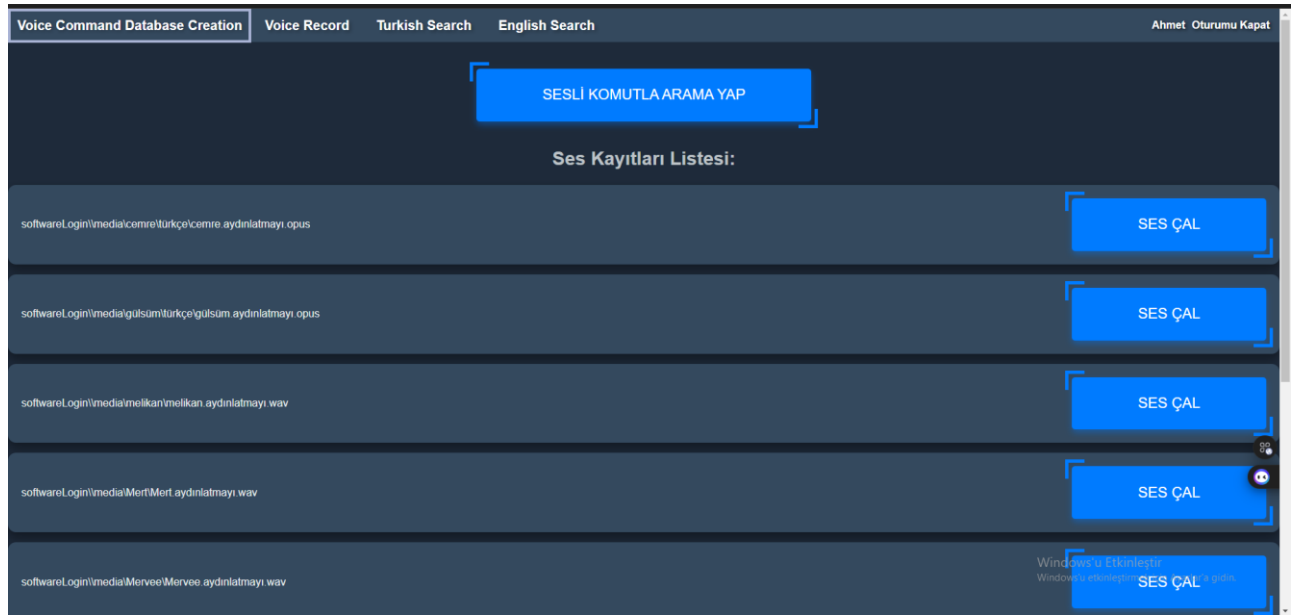
• **Image:18**

- We can play the audios retrieved from the database by pressing the "SES ÇAL" button.
- When we click the "English Search" button, we can search the database by speaking English words after pressing the "Search with Voice Command" button.(image19)
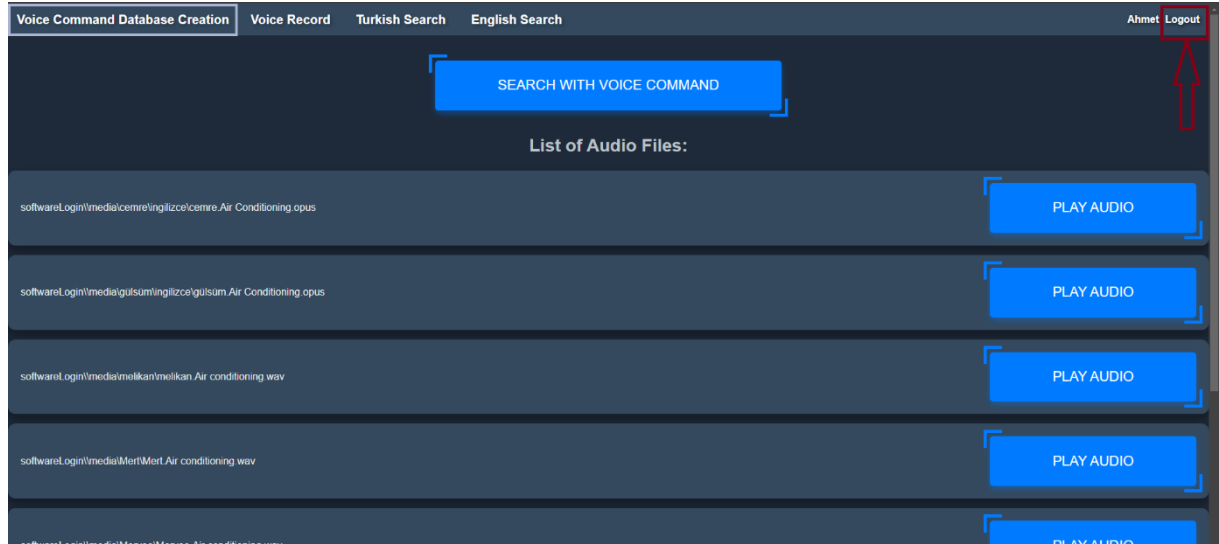

• **Image:19**

- We can log out by clicking the "Oturumu Kapat" or "Logout" button.(image20,21)

• **Image:20**

• **Image:21**

7 References

• https://www.djangoproject.com/