

Name:- Dhaval Bahopiya

Enroll no:-92400133132

Git Hub Link :-

<https://github.com/BahopiyaDhaval/PDF-to-Audiobook-and-Speech-to-PDF-Converter-using-Python-Project.git>

Project Title:

PDF to Audiobook and Speech to PDF Converter using Python

Introduction:

This project aims to develop a Python-based application that can **convert PDF text files into audiobooks** and also **convert spoken speech into PDF text files**.

The project combines **Text-to-Speech (TTS)** and **Speech-to-Text (STT)** technologies to make reading and writing more accessible and automated.

The system helps users listen to written documents and also convert voice recordings or spoken words into editable and shareable PDF files.

Methodology:

1. PDF to Audiobook Conversion:

- The program extracts text from PDF files using libraries such as [PyPDF2](#) or [pdfminer.six](#).
- The extracted text is then converted to speech using a Text-to-Speech engine such as [gTTS](#) or [pyttsx3](#).
- The final output is saved as an **audio file (MP3/WAV)**, which functions as an audiobook.

2. Speech to PDF Conversion:

- The system records or imports voice audio and converts it into text using Speech Recognition libraries like `speech_recognition` or `whisper`.
- The recognized text is then formatted and exported as a **PDF document** using the `reportlab` library.
- This process automates the conversion of voice notes or lectures into readable documents.

3. Testing and Execution:

- Both modules are run from a simple Python terminal interface, allowing the user to choose between text-to-audio or audio-to-text conversion.
- The final outputs (audio or PDF) are stored locally for playback or sharing.

Applications:

- **Education:** Helps students convert textbooks and notes into audiobooks or create written notes from lectures.
- **Accessibility:** Assists visually impaired users in listening to written documents.
- **Content Creation:** Converts podcasts or voice recordings into readable text.
- **Business:** Converts meeting recordings or discussions into professional PDF minutes.
- **Personal Use:** Makes it easier to consume or document information hands-free.