OCR Operation in OCRPRO.ai

Introduction

OCR (Optical Character Recognition) is a key operation in **OCRPRO.ai**, allowing documents to be digitized and structured for further processing. Our OCR pipeline extracts text, images, and drawings from documents, converting them into an editable format while maintaining version control.

OCR Processing Flow

1. Document Upload & Processing Initiation

- A document is uploaded to the **OCR service**.
- The service processes the document and extracts content.

2. OCR Extraction

- The OCR system scans the document page by page.
- It extracts:
    - **Texts**
    - **Images**
    - **Drawings**
    - **Page number of each page**
- The extracted content is returned in a **JSON format**.

3. Loading the Document in an Editable Format

- The **JSON output** from the OCR process is used to load the document into a **canvas editor**.
- The document becomes **fully editable**, allowing users to modify text and structure as needed.

4. Version Control System

- A **simple version control system** is implemented.
- Users can:
    - View **previous saved versions** of the document.
    - Restore an earlier version if needed.

Technologies Used

- **Tesseract OCR**: OCR engine used for text extraction.

- **Node.js**: Handles frontend and API requests.
- **Django**: Backend processing server.
- **Canvas Editor**: Enables document editing.
- **Version Control System**: Maintains saved versions of documents.

Conclusion

By integrating **OCR processing** with **editable document rendering** and **version control**, OCRPRO.ai ensures efficient and structured document management. This approach allows users to extract, edit, and manage document content seamlessly.