Docling

1. Introduction

Docling is an open-source document understanding tool designed to convert PDFs, images, and other formats into structured data such as plain text, HTML, or JSON. It supports multiple backends and enrichment modules for layout understanding OCR, table parsing, and visual language models. In this report, Docling has been tested on 50 unique bank statement formats from various Indian and international banks to evaluate its performance in extracting key transactional data from tabular structures.

2. Evaluation Summary

The full evaluation table with remarks for all 50 banks has been compiled in a separate document.

Access it here: [Docling Parsing Report.xlsx]

3. Summary & Observations

- **Fully Parsed Files**: Out of 50 bank statement PDFs, Docling successfully and accurately parsed 33 files without any errors, extracting tabular data and headers effectively.
- **Minor Parsing Issues**: In 16 files, tables were parsed with minor issues such as slight mismatches in row or column order, but the overall structure and headers were correctly identified.
- **Parsing Failure**: Only 1 file failed to be parsed completely due to complex formatting, such as irregular layouts or embedded fonts.
- **Header Recognition**: Across all files, Docling consistently detected and extracted header sections with high accuracy, demonstrating its robust layout understanding.
- **Strong with Digital PDFs**: Docling showed consistent and reliable performance on digitally generated PDFs, making it well-suited for structured, machine-readable documents.

4. Conclusion

Docling is a promising tool for document parsing, especially with table-heavy formats like bank statements. However, its current open-source build lacks training support, limiting its adaptability across diverse formats. It performs best on standardized digital PDFs but struggles with handwritten notes, scanned images, or stylized layouts.