import streamlit as st

import fitz # PyMuPDF

import spacy

from difflib import Differ

# Load spaCy model

nlp = spacy.load("en\_core\_web\_sm")

# Business contract template

template = """This Business Contract ("Agreement") is entered into on this [Date], by and between [Party A], located at [Party A's Address], and [Party B], located at [Party B's Address]. The parties agree to the following terms and conditions for the mutual benefit of both parties:

Scope of Work: [Party A] agrees to provide [specific services or products] to [Party B] as outlined in [detailed description of services/products]. This work shall be completed within [time frame], starting from the date of this Agreement. [Party B] agrees to provide necessary support and information to [Party A] to facilitate the timely and effective completion of the work.

Compensation and Payment Terms: In exchange for the services/products provided by [Party A], [Party B] agrees to pay a total amount of [specified amount] in accordance with the payment schedule outlined in [payment schedule details]. Payments shall be made via [preferred payment method] and are due [terms of payment, e.g., upon receipt of invoice, net 30 days]. Late payments will incur a [late fee/interest rate].

Confidentiality and Termination: Both parties agree to maintain the confidentiality of any proprietary information shared during the course of this Agreement. This Agreement may be terminated by either party with [number of days] written notice if the other party breaches any material term of this Agreement. Upon termination, [Party A] shall be compensated for all work completed up to the termination date, and all materials provided by [Party B] shall be returned promptly."""

# Streamlit UI

st.title('Business Contract Validator')

uploaded\_file = st.file\_uploader("Choose a PDF file", type="pdf")

if uploaded\_file is not None:

# Extract text from PDF

doc = fitz.open(stream=uploaded\_file.read(), filetype="pdf")

text = ""

for page in doc:

text += page.get\_text()

st.text\_area("Extracted Text", text, height=300)

# Compare extracted text with template

differ = Differ()

diff = list(differ.compare(template.splitlines(), text.splitlines()))

highlighted\_diff = "\n".join(diff)

st.text\_area("Highlighted Differences", highlighted\_diff, height=300)

# Detect entities in the extracted text

doc = nlp(text)

entities = [(ent.text, ent.label\_) for ent in doc.ents]

st.subheader("Detected Entities")

for entity in entities:

st.write(f"{entity[0]} ({entity[1]})")

# Show entities in the template

template\_doc = nlp(template)

template\_entities = [(ent.text, ent.label\_) for ent in template\_doc.ents]

st.subheader("Template Entities")

for entity in template\_entities:

st.write(f"{entity[0]} ({entity[1]})")