Problem Statement

Business Contract Validation- To classify content within the Contract Clauses & to determine deviations from Template & highlight them

Unique Idea Brief (Solution)

- Automated Classification: Use machine learning (ML) and natural language processing (NLP) to classify contract clauses into predefined categories.
- Deviation Detection: Develop a template database and compare contract clauses against these templates to detect deviations.
- Highlight Deviations: Automatically highlight deviations, indicating areas that need review or modification.

Features Offered

- Clause Classification: Automatically classify contract clauses into categories such as payment terms, confidentiality, and termination.
- Deviation Detection: Compare each clause with standard templates to detect deviations.
- User Interface: User-friendly dashboard to display classified clauses and highlight deviations.
- Reports: Generate detailed reports showing deviations and suggested modifications.
- Scalability: Capable of handling large volumes of contracts.
- Continuous Learning: Incorporate feedback to continuously improve the ML models.

Processflow

1. Upload Contract: User uploads a business contract to the system.
2. Clause Segmentation: The system segments the contract into individual clauses.
3. Classification: Each clause is classified into predefined categories using the trained ML model.
4. Template Comparison: The classified clauses are compared with standard templates.
5. Deviation Highlighting: Deviations are highlighted, and a report is generated for the user.

Technologiesused

- Programming Languages: Python
- Frontend: HTML, CSS, JavaScript, React
- Backend: Django, Node.js
- Version Control: Git, GitHub

Team members and contribution:

Team Member : 1
Team Lead: Sanskrut Wadettiwar

Team members and contribution:

- The proposed system automates the classification and validation of business contracts, significantly reducing the time and effort required for manual review.
- By leveraging ML and NLP, the system ensures higher accuracy and consistency, minimizing legal risks.
- The user-friendly interface and automated deviation detection enhance user experience and operational efficiency.
- Future enhancements include continuous learning, integration with existing systems, and the use of advanced NLP techniques for better clause understanding.