Legal Eagle: Simplifying Complex Contracts with AI.

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Abstract:

Legal Eagle is an innovative solution designed to empower small businesses by simplifying the complexities of legal contracts. Utilizing cutting-edge AI-powered legal analysis, Legal Eagle provides businesses with precise, actionable insights, enabling them to navigate contracts with confidence. This tool ensures that small businesses can make informed decisions, minimize legal risks, and save valuable time and resources, thereby fostering a more secure and efficient business environment.

1. Problem Statement:

Small businesses often lack the resources to hire experienced legal counsel, leaving them vulnerable when dealing with complex contracts. This can lead to several problems like, small businesses may unknowingly agree to unfair terms or hidden obligations within contracts due to limited legal expertise. The complexity of contracts can obstruct small businesses from pursuing potentially valuable business partnerships or agreements, without proper understanding of legal risks within contracts, small businesses face financial and operational exposure.

Legal Eagle empowers small businesses to navigate contracts with confidence by providing AI-powered legal analysis.
Not just small businesses but legal professionals can also use Legal Eagle rather than being bogged down by the time-consuming and error-prone process of manually reviewing complex legal documents.
Legal Eagle aims to address these challenges by leveraging AI to simplify complex contracts.

2. Market/Customer/Business Need Assessment:
2.1 Market Analysis:

The legal services market for small businesses is substantial and growing. According to a report by skyquest.com, the global legal

services market for small businesses is expected to reach USD 1511.45 billion by 2031. This indicates a strong demand for legal solutions tailored to small businesses.

The increasing complexity of contracts, coupled with the rise of e-commerce and online business interactions, are driving the need for accessible legal tools. Small businesses are increasingly adopting technology solutions to streamline operations, and legal document analysis in prime area for such adoption.

While established legal services exist, there is a gap for cost-effective and user-friendly solutions specifically designed for small businesses. Identifying your key competitors in the legal tech space and their strengths and weaknesses is crucial.

2.2 Customer Needs:

Small businesses need a way to easily grasp the key terms, obligations, and potential risks within contracts they encounter. Legal fees can be a significant burden for small businesses. They require solutions that are affordable and offer a good return on investment.

Legal documents are often complex and written in legalese. Small businesses need a solution that is user-friendly and doesn't require extensive legal expertise to operate.

2.3 Business Needs:

Legal Eagle can help small businesses save time and resources by automating contract review and analysis. Identifying potential risks within contracts helps small businesses make informed decisions and avoid costly legal disputes.

By ensuring a clear understanding of contracts. Legal Eagle can help small businesses build stronger relationships with clients and partners. Access to AI- powered legal analysis can position small businesses as more professional and prepared when dealing with contracts, potentially leading to better deals and opportunities.

3. **Target Specifications and Characterization:**
   3.1 Target Market:

   The Product will target majorly small businesses which includes businesses with limited legal resources, typically with less than 500 employees.

   3.2 Product Specifications and Characteristics:

   ➢ <u>Collaboration tools:</u> Allowing users to share contracts and insights with team members.
   ➢ <u>Customizable reports:</u> Generate reports summarizing key findings and risks tailored to specific needs.
   ➢ <u>Integration with existing tools:</u> Integrate with popular cloud storage services or business management platforms.
   ➢ <u>Basic legal guidance:</u> Offer limited, pre-defined legal Q&A or resources to address common contract concerns.

4. **Business Model:**

<u>Subscription Model:</u>

This is a common and recurring revenue model.

Offer tiered subscription plans with varying features:

   ➢ Free Plan: Limited analysis features (e.g., basic contract type identification, key term extraction) with a usage cap.
   ➢ Basic Plan: More in-depth analysis (e.g., risk highlighting, plain language explanations) at a reasonable monthly cost.
   ➢ Pro Plan: Advanced features like customizable reports, collaboration tools, and higher usage limits for a premium monthly fee.

<u>Pay-Per-Use Model:</u>

   ➢ This caters to businesses with occasional contract needs.
   ➢ Users pay a per-document fee for analysis, with potential discounts for volume purchases.

<u>Freemium Model:</u>

> ➢ Offer a free basic version with limited functionality to attract users.
> ➢ Upsell them to premium features through the subscription model or pay-per-use options.

5. Concept Generation:

As a data science student, the concept for Legal Eagle came to me while helping a family friend with their small business. They were struggling to understand the legal jargon in a contract and asked for my help. Although I had no formal legal training, I used my analytical skills to identify key points and potential issues.

Seeing firsthand how challenging and time-consuming this process was for a small business, I realized there was a need for a tool that could simplify contract analysis. Leveraging my background in data science, I envisioned an AI-powered solution that could analyse contracts, flag potential risks, and provide clear, actionable insights. This experience inspired me with the idea of Legal Eagle, a tool designed to empower small businesses to navigate contracts with confidence and ease.

6. Final Product Prototype with schematic Diagram:

An AI-powered tool designed to help small businesses navigate and understand contracts with ease and confidence. The tool uses advanced natural language processing (NLP) algorithms to analyse contract text, identify key terms and potential risks, and provide clear, actionable insights.

Description of Modules:

User Interface:

- A web or mobile application where users can upload contracts, view analysis results, and manage their documents.

Contract Upload Module:

- Handles the uploading of contracts in various formats and converts them into text for analysis.

Text Parsing Module:

- Extracts text from uploaded documents, removing any irrelevant content.

NLP Analysis Module:

- Uses natural language processing to analyse the contract text, identifying key terms, clauses, and patterns.

Key Term Identification:

- Identifies and highlights critical terms and clauses within the contract, making them easily accessible to the user.

Risk Analysis Module:

- Evaluates the contract for potential legal risks and flags them, providing explanations and recommendations.

Summary Generation:

- Produces a concise summary of the contract, highlighting obligations, deadlines, and other important information.

Results Display:

- Presents the analysis results to the user in an intuitive and easy-to-understand format, with highlighted key terms and flagged risks.

This prototype provides a comprehensive solution to help small businesses confidently navigate their contracts, reducing the need for extensive legal expertise and allowing them to focus on their core operations.

Schematic Diagram:

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                                    ▼
┌─────────────────────┐
│   Upload Contract    │
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                          ┌──────────────────────────┐
                          │ Convert Document to Text  │
                          └──────────────────────────┘
                                    │
┌─────────────────────┐             ▼
│  Extract and clean Text │
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                          │  Analyse Text using NLP   │
                          └──────────────────────────┘
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│ Identity Key terms and│
│       Clauses         │
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│ Display Analysis Results │
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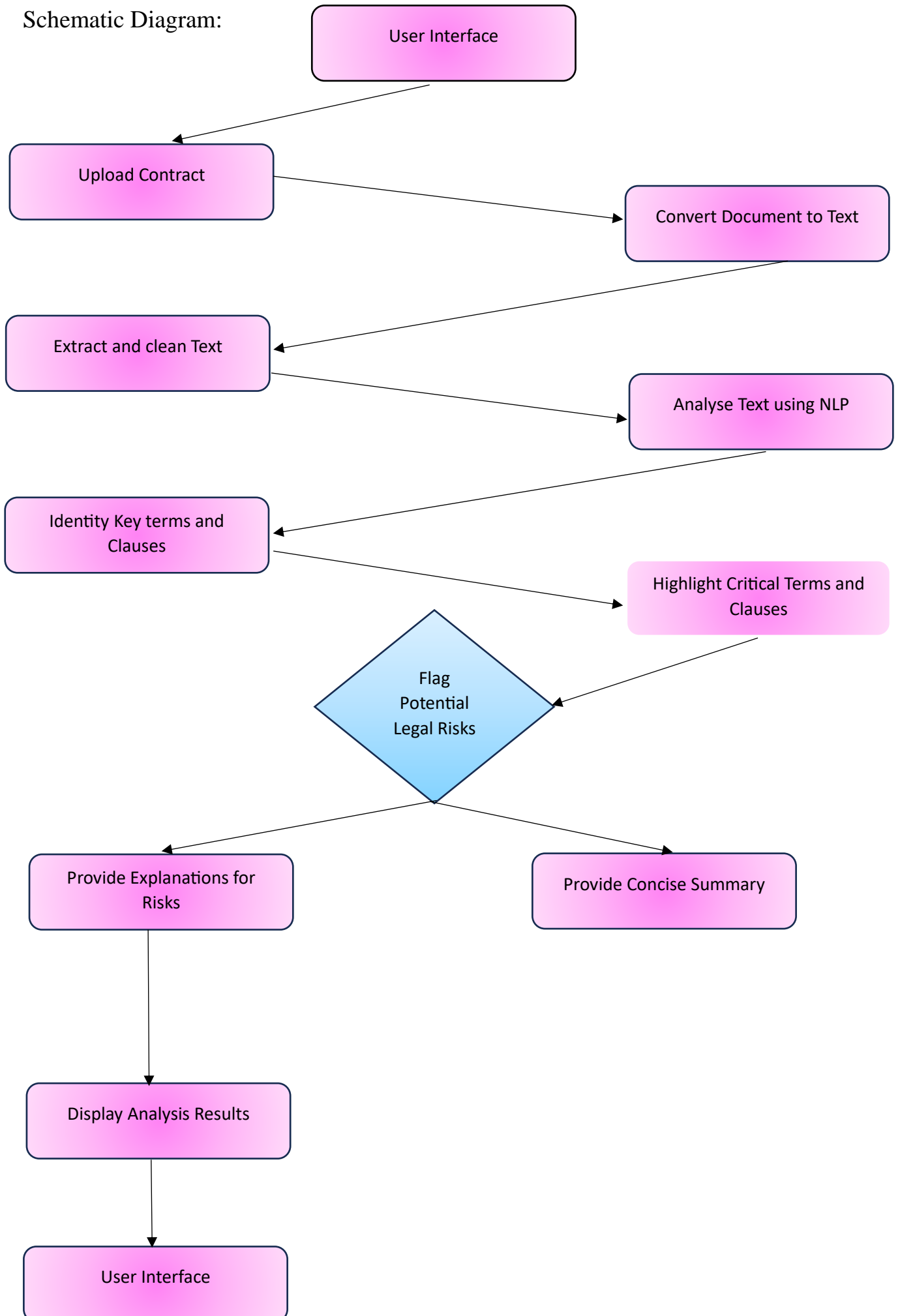
7. Product Details:

1. Uploading and Preprocessing:

➢ Users can upload contracts through a drag-and-drop interface or by browsing their file system.
➢ Supported file formats include commonly used document formats like PDF, DOCX, and TXT.
➢ Upon upload, the system performs secure storage and initiates pre-processing steps like Text cleaning and Normalization.

2. AI-powered Analysis:

➢ The pre-processed document is fed into the core of Legal Eagle - the Machine Learning Engine.
➢ This engine utilizes pre-trained AI models specifically designed for legal document analysis.
➢ These models perform various tasks:
  ❖ Named Entity Recognition (NER): Identifying and classifying entities like names, dates, locations, and monetary values within the document.
  ❖ Contract Clause Classification: Categorizing different contract sections (e.g., confidentiality, termination, limitation of liability) based on their language patterns.
  ❖ Risk Prediction: Analysing the contract language and comparing it to historical legal data (case law) to predict potential risks associated with specific clauses or situations.

3. Analysis Results and Insights:

Once the analysis is complete, Legal Eagle presents the results in a user-friendly format on the dashboard:
➢ Key Term and Entity Highlighting: The system highlights important entities (names, dates, amounts) directly within the uploaded document.
➢ Plain Language Explanations: Complex legal clauses are rephrased in clear, understandable language for users without legal expertise.

- ➢ Risk Assessment: The system assigns a risk score and provides explanations for potential red flags or unfavourable terms identified within the contract. This might include highlighting clauses with hidden fees, limitations on liability, or unfavourable termination clauses.
- ➢ Downloadable Reports: For higher subscription tiers, users can download comprehensive reports summarizing key findings, risks, and highlighted clauses. These reports might also include visualizations like charts or heatmaps for easier comprehension.

4. Collaboration Tools (Optional):

For higher subscription plans, Legal Eagle might offer collaboration features:
- ➢ Users can share uploaded contracts and analysis results with team members for review and discussion.
- ➢ Team members can leave comments and annotations directly within the document or specific clauses.

5. Security and Privacy:

Legal Eagle prioritizes secure document storage and data privacy.
- ➢ Documents are uploaded using secure protocols and stored in encrypted databases.
- ➢ User access is controlled with secure authentication methods.
- ➢ Legal Eagle adheres to relevant data privacy regulations to ensure user information is protected.

Overall Workflow:

- ➢ User uploads a contract document.
- ➢ System performs secure storage and pre-processing (text cleaning).
- ➢ Pre-processed document is fed into the Machine Learning Engine for AI-powered analysis.
- ➢ Analysis results are presented in an easy-to-understand format: highlighted terms, plain language explanations, and risk assessments.
- ➢ Users can download reports, collaborate with team members.

8. Conclusion:

Legal Eagle presents a compelling solution for small businesses struggling with complex contracts. By leveraging AI- powered analysis, it simplifies legal jargon, identifies potential risks, and empowers users to make informed decisions without relying on expensive legal counsel.

Legal Eagle has the potential to revolutionize the way small businesses handle contracts. It can become the go-to platform for contract analysis, fostering a legal landscape where small businesses are empowered and protected. Legal Eagle doesn't just simplify contracts; it simplifies the path to success for small businesses.