<AI-Powered Requirement Analysis>

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Description

This project aims to leverage Artificial Intelligence, specifically Natural Language Processing (NLP), to enhance the quality of software requirement documents. Software requirements often suffer from ambiguities, inconsistencies, and incompleteness, leading to communication gaps and project delays. Our proposed solution is an AI-driven tool that analyzes requirement documents to detect unclear language, conflicting statements, and missing details. By providing actionable feedback and suggestions, the tool ensures that requirements are clear, consistent, and complete, ultimately improving the overall efficiency of the software development lifecycle. This project will contribute to reducing manual effort and enhancing collaboration between stakeholders and development teams.

Objective

- **Analyze Requirement Documents**: Utilize AI-powered Natural Language Processing (NLP) to evaluate the linguistic and semantic quality of software requirements.
- **Detect Ambiguities**: Identify unclear or ambiguous phrases that could lead to misinterpretation during development.
- **Identify Inconsistencies**: Detect conflicting or contradictory statements within the requirements.
- **Assess Completeness**: Highlight missing or incomplete elements by comparing against domain-specific templates and best practices.
- **Provide Actionable Feedback**: Generate suggestions to improve clarity, consistency, and completeness, ensuring high-quality requirements.