## Requirements Gathering Agent: Project Summary and Goals

### Project Summary

The Requirements Gathering Agent is an AI-powered command-line tool designed to automate the generation of comprehensive project management documentation adhering to PMBOK 7.0 standards. It leverages Azure OpenAI (with support for Google AI, GitHub AI, and Ollama) to analyze project information from various sources beyond the README file, including requirements documents, architecture specifications, stakeholder information, and planning documents. This analysis informs the generation of a suite of 29 PMBOK-compliant documents, including project charters, management plans, stakeholder analyses, and technical specifications. The tool offers multiple export formats (Markdown, Word (.docx), JSON, YAML) with a focus on producing professional, enterprise-ready Word documents. The project currently boasts 175 weekly downloads on NPM, indicating strong market validation.

The primary target users are project managers and business analysts seeking to streamline their documentation workflows and ensure PMBOK compliance. Stakeholders include clients, project sponsors, and regulatory bodies requiring formal project documentation.

The technical approach involves a three-phase enhanced context manager that maximizes the utilization of large language models (like Gemini 1.5 Pro) to achieve high-quality, accurate, and contextually rich documentation. The system includes robust error handling, retry logic, and comprehensive validation features to ensure data integrity and compliance.

### Project Goals

The project aims to achieve the following:

**Primary Business Objectives:**

* **Automate PMBOK Documentation:** Significantly reduce the time and effort required to create comprehensive project management documentation.
* **Improve Documentation Quality:** Generate more accurate, consistent, and complete documentation than traditional manual methods.
* **Enhance PMBOK Compliance:** Ensure all generated documents adhere to PMBOK 7.0 standards, minimizing compliance risks.
* **Increase Stakeholder Alignment:** Provide stakeholders with clear, consistent, and readily accessible project information.
* **Generate Revenue:** Establish a sustainable and profitable product through sales and subscriptions (implied).

**User-Centric Goals and Outcomes:**

* **Streamline Workflows:** Provide a simple and efficient way for project managers and business analysts to generate PMBOK documentation.
* **Reduce Manual Effort:** Eliminate the need for repetitive manual tasks associated with document creation.
* **Improve Project Visibility:** Enhance transparency and communication among project stakeholders.
* **Increase Project Success Rates:** Contribute to improved project planning, execution, and overall success.

**Technical and Architectural Goals:**

* **Support Multiple AI Providers:** Offer flexibility and resilience by supporting multiple AI providers.
* **Maximize Context Utilization:** Optimize the use of large language models to generate highly accurate and contextually rich documents.
* **Maintain Scalability and Performance:** Ensure the system can handle large projects and high volumes of data efficiently.
* **Ensure Robustness and Reliability:** Implement comprehensive error handling and retry mechanisms to guarantee system stability.
* **Develop a maintainable codebase:** Utilize best practices (TypeScript, testing) for long-term maintainability and extensibility.

**Quality and Performance Targets:**

* Achieve high PMBOK compliance scores (above 90%) for generated documents.
* Maintain high user satisfaction ratings (above 4.5 stars).
* Ensure fast and reliable document generation times.
* Minimize file sizes for efficient distribution.

**Success Criteria and Metrics:**

* Number of weekly downloads and active users.
* User feedback and satisfaction ratings.
* PMBOK compliance scores of generated documents.
* Customer acquisition cost and lifetime value.
* Market share within the project management documentation tools space.

### Strategic Alignment

The Requirements Gathering Agent aligns with broader business strategies by addressing the need for efficient and compliant project management documentation in a market increasingly reliant on AI-powered solutions. Key business drivers include increased demand for automation, improved project success rates, and reduced compliance risks. The competitive advantage lies in the tool’s comprehensive project analysis capabilities, enhanced context management, and focus on generating professional, enterprise-ready output formats like Word documents. The project represents an innovation in project management by leveraging AI to automate a traditionally manual and time-consuming process.