# Requirements Gathering Agent - Activity List

This Activity List outlines the tasks required to complete the Requirements Gathering Agent software project. Activities are categorized and linked to relevant Work Breakdown Structure (WBS) elements for better organization and traceability. The level of detail is sufficient for planning and tracking progress without being overly granular. This list serves as a key input for scheduling and resource allocation.

| Activity ID | Activity Name | Description | WBS Reference |
| --- | --- | --- | --- |
| ACT-001 | Project Initiation | Define project goals, objectives, and scope based on the project charter and stakeholder input. Establish communication plan and kickoff meeting. | 1.1 Project Initiation |
| ACT-002 | Requirements Gathering & Analysis | Collect, analyze, and document functional and non-functional requirements from stakeholders, documentation, and the project README. Prioritize requirements. | 1.2 Requirements Management |
| ACT-003 | System Design & Architecture Definition | Design the system architecture, including core components (context manager, AI provider integration, document generation engine, CLI), technology stack, and data flow. | 1.3 System Design |
| ACT-004 | Development Environment Setup | Set up the development environment, including installing necessary software, configuring version control, and creating a development workflow. | 1.4 Development Environment Setup |
| ACT-005 | Context Management Module Development | Develop the context management module, including context extraction, prioritization, and injection for various AI models. Implement the 3-phase context strategy. | 2.1 Context Management |
| ACT-006 | AI Provider Integration Development | Develop integration modules for Azure OpenAI, Google AI, GitHub AI, and Ollama. Implement error handling and fallback mechanisms. | 2.2 AI Provider Integration |
| ACT-007 | Document Generation Engine Development | Develop the document generation engine, including template management, PMBOK compliance checks, and output formatting (Markdown, JSON, YAML, DOCX). | 2.3 Document Generation Engine |
| ACT-008 | CLI Development | Develop the command-line interface, including argument parsing, configuration management, and user interaction (interactive menu for provider selection). | 2.4 CLI Development |
| ACT-009 | Unit & Integration Testing | Conduct unit and integration testing of all modules to ensure functionality and identify bugs. | 2.5 Testing |
| ACT-010 | PMBOK Compliance Validation Development | Develop the PMBOK compliance validation module, including completeness checks, quality assessment, and consistency validation across documents. | 2.6 PMBOK Validation |
| ACT-011 | Word Document Export Development | Develop the Word (.docx) export functionality, ensuring professional formatting, metadata, and compatibility with Microsoft Word. | 2.7 Word Export |
| ACT-012 | Comprehensive Project Analysis Implementation | Implement the comprehensive project analysis feature, including recursive directory traversal, relevance scoring, and automatic categorization of discovered files. | 2.8 Project Analysis |
| ACT-013 | Documentation Writing & Updates | Create and maintain comprehensive documentation, including user guides, API documentation, and internal technical documentation. Update existing documentation with new features. | 3.1 Documentation |
| ACT-014 | Code Reviews | Conduct regular code reviews to ensure code quality, maintainability, and adherence to coding standards. | 3.2 Code Reviews |
| ACT-015 | System Testing | Perform thorough system testing to validate end-to-end functionality, performance, and stability. | 3.3 System Testing |
| ACT-016 | User Acceptance Testing (UAT) | Conduct UAT with users to gather feedback and ensure the system meets their requirements. | 3.4 UAT |
| ACT-017 | Bug Fixing & Refinement | Address any bugs or issues identified during testing phases. Refine the system based on user feedback. | 3.5 Bug Fixing & Refinement |
| ACT-018 | Deployment & Release | Deploy the Requirements Gathering Agent to npm registry. | 4.1 Deployment |
| ACT-019 | Post-Release Monitoring & Support | Monitor the system post-release to identify and address any issues. Provide ongoing support to users. | 4.2 Post-Release Support |
| ACT-020 | Project Closure | Formalize project closure, including documentation archiving, lessons learned, and final stakeholder communication. | 4.3 Project Closure |

**WBS Structure (Simplified):**

1. Project Management 1.1 Project Initiation 1.2 Requirements Management …
2. System Development 2.1 Context Management 2.2 AI Provider Integration …
3. Quality Assurance 3.1 Documentation 3.2 Code Reviews …
4. Deployment & Closure 4.1 Deployment 4.2 Post-Release Support 4.3 Project Closure

This Activity List provides a starting point and will likely need adjustments as the project progresses and more detailed information becomes available. Regular review and updates are crucial for effective project management.