Requirements the Bots/Agents/ Assistants

Requirements for Project Breakdown Bot

1. **Input Handling**
    - Ability to accept high-level project tasks as input and parse them for processing.
    - Input should include project objectives, key results, and scope details.
2. **Sub-Element Decomposition**
    - Automated decomposition of high-level tasks into detailed sub-tasks.
    - Each sub-task should include specific actions, dependencies, and requirements.
3. **Dependency Mapping**
    - Automatically identify and map dependencies between sub-tasks to ensure proper sequencing and resource allocation.
4. **Output Specification**
    - Generate outputs in **JSON format**, ensuring consistency with existing data structures.
    - Each sub-element must include:
        - Name
        - Detailed description
        - Scope (inclusions and exclusions)
        - Dependencies (other related sub-tasks)
        - Requirements (knowledge and resources needed, with a limit of 3-5 items)
        - Unique identification index for tracking and reference
5. **Performance Requirements**
    - The bot should process input and produce the output within a reasonable time frame.
    - Ensure high accuracy in the decomposition to minimize the need for manual corrections.

Requirements for Project Decomposition Guide Bot

1. **Input Processing**
    - Ability to receive overall project goals and objectives as input.
    - Handle multiple inputs simultaneously for complex projects involving various departments or teams.
2. **Guided Breakdown**
    - Systematically break down the overall project into primary actionable steps, indexed logically (e.g., 1.1, 1.2, etc.).
    - Each step should clearly define the tasks necessary to achieve specific project milestones.
3. **Comprehensive Output Details**
    - Outputs must be in JSON format, compatible with project management tools.
    - Each step must include:
        - Step name
        - Detailed description of the task
        - Scope of the step (what is included and what is not)
        - Dependencies on other project steps
        - Specific requirements for completion (limited to a maximum of 5 items)
4. **Scalability and Adaptability**
    - The bot should be scalable to handle projects of varying sizes and complexities without loss of performance.
    - Capable of adapting to different project types with minimal configuration changes.
5. **Integration Capability**
    - Ensure seamless integration with existing project management software and tools.
    - Support data interchange with other enterprise systems to maintain data consistency and accuracy.

Evaluation Criteria

Project Decomposition Guide Bot

1. **Input Processing**
    - **Criteria**: The bot must handle varied input formats without error and interpret complex multi-component project goals accurately.
2. **Guided Breakdown**
    - **Criteria**: The clarity of the breakdown, correctness of the action steps relative to the overall goal, and logical indexing of each step.
3. **Comprehensive Output Details**
    - **Criteria**: Adherence to JSON output specifications, accuracy of detailed descriptions, and completeness of scope and requirement listings. Each element must be clearly defined and match project documentation standards.
4. **Scalability and Adaptability**
    - **Criteria**: The bot should demonstrate efficiency and accuracy across projects of varying sizes and complexities. Test for performance degradation as project size increases.
5. **Integration Capability**
    - **Criteria**: Seamless integration with at least X number of existing project management tools, verified through API connectivity tests and data exchange verification.
6. **Security and Compliance**
    - **Criteria**: Adherence to organizational IT security policies, successful completion of vulnerability assessments, and compliance with data protection regulations.

Sub-Element Breakdown Bot

1. **Input Handling**
    - **Criteria**: Accuracy of input parsing, ability to handle complex project descriptions without errors.
2. **Sub-Element Decomposition**
    - **Criteria**: Completeness of task breakdown, accuracy in maintaining the integrity of the original project scope, and detailed task delineation.
3. **Dependency Mapping**
    - **Criteria**: Correct identification and logical mapping of dependencies that reflect actual project needs and constraints.
4. **Output Specification**
    - **Criteria**: Compliance with the JSON format specifications, correctness of data structure, and completeness of each sub-task's details. Ensure all fields are populated according to specifications with no data truncation.
5. **Performance Requirements**
    - **Criteria**: Time efficiency (e.g., the bot must process inputs and generate outputs within X seconds), and reliability (e.g., the bot performs consistently over Y number of cycles without failure).