# Evaluation with pre-defined requirements and criteria

### Contents

E	valuation	1
	Introduction	
	Validation Against Requirements for Project Breakdown Bot	4
	Validation Against Requirements for Project Decomposition Guide Bot and Sub-Element Breakdown	l
	Bot	7
	Conclusion	10

#### **Introduction**

With this evaluation I wanted to validate the systems output with the predefined criteria from the <u>Specifications & Design phase</u>. This test will show how the Breakdown Bot Level 1 and the Breakdown Bot Level 2 can dissect projects into actionable tasks. I use three examples, breaking them down half way and analyzing the results then I will go through the requirements and criteria to find out if these systems can adhere to the criteria. These examples were picked, because they are both comprehensive and simple. Even though they are simple, each step needs to make sense and needs to stay in their own scope.

The structured the document in two segments, first the validation against the requirements, to show which of the requirements was met and next will be the evaluation with the criteria. This will give me a detailed evaluation, highlighting the capabilities and its limitations.

#### Examples:

- 1. Create a Business model canvas for a marketing company in the Netherlands.
- 2. Set up an empathy map for the target audience of a new smartphone game
- 3. Put together a detailed project plan for the launch of a new E-commerce platform

#### Validation Against Requirements for Project Breakdown Bot

#### 1. Input Handling

- **Criteria**: Ability to accept high-level project tasks as input and parse them for processing. Input should include project objectives, key results, and scope details.
- Validation: Yes, the system
  meets this requirement. In the
  images provided, you can see
  the input handling of high-level
  project tasks. The "Objective"
  section clearly lists the project
  objectives, and the "Key Results"
  section outlines the key results
  expected. The "Scopes" section
  provides detailed scope details
  for each project, demonstrating
  that the system can accept and
  parse these inputs effectively.

2.	<b>Sub-Element</b>	<b>Decomposition</b>
	Our Licilione	- ccomposition

 Criteria: Automated decomposition of high-level tasks into detailed sub-tasks. Each

sub-task should include specific actions, dependencies, and requirements.

Name	Index	Status	Description	Requirements
Identify Channels	1.3	Done	Determine the most effective channels for communication and distribution to the chosen customer segments.	Knowledge of Environment, Analytical Skills
Define Value Propositions	1.2	Not started	Develop unique value propositions and differentiate from the competition.	CRM Knowledge, Value Creation
Define Customer Segments	1.1	Done	Identify and define the specific customer segments that will best use the marketing services.	Creative Thinking
Formulate Cost Structure	1.9	Not started	Analyze and determine the complete cost structure of the business, including both direct and variable costs.	Financial Analysis Knowledge, Decision Making
Determine Key Partners	1.8	Not started	Identify critical partners and collaborations that contribute to the functioning of the business model.	Negotiation Skills, Contract Management
Identify Key Resources	1.7	Not started	Identify and organize the key resources needed to perform the key activities.	Resource Management Knowledge, Budgeting
Define Key Activities	1.6	Not started	Detail the key activities needed to deliver the value proposition and be successful in the market.	Project Management, Organizational Skills
Determine Revenue Streams	1.5	Not started	Identify the revenue streams for value propositions that attract the attention of customer segments.	Budgeting Knowledge, Administrative Skills
Create Customer Relationships	1.4	Not started	Develop strategies for building and maintaining long-term relationships with customers.	CRM Knowledge, Empathetic Skills

• Validation: Yes, this requirement is met. The "Laundromat AI Output Level 1" and "Laundromat AI Output Level 2" tables show the decomposition of high-level tasks into detailed sub-tasks. Each sub-task includes specific actions, as evidenced by the descriptions, and the requirements for each task are listed in the "Requirements" column.

#### 3. Dependency Mapping

- **Criteria**: Automatically identify and map dependencies between sub-tasks to ensure proper sequencing and resource allocation.
- **Validation**: Yes, in the image you can see how the index columns in both tables correlate with each other.

#### 4. Output Specification

- Criteria: Generate outputs in a specific format, ensuring consistency with existing data structures.
   Each sub-element must include:
  - Name
  - Detailed description
  - Scope (inclusions and exclusions)
  - Dependencies
     (missing from the tables)

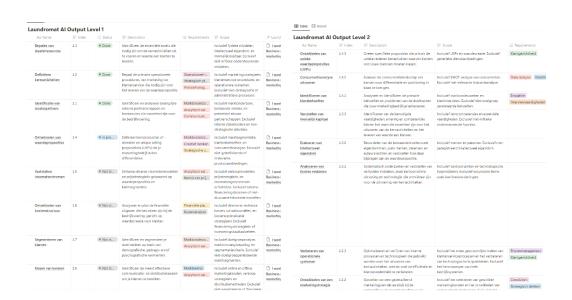
Name	Index	Status	Description	Requirements
Develop Strategy for Channel Integration	1.3.3	Not started	Create a plan to integrate both existing and new channels into a coherent and seamless marketing and distribution model.	Strategic Planning Skills, Communication Skills
Identify New Channels	1.3.2	Not started	Research market trends to find new and untapped channels for reaching target customer segments.	Digital Marketing Knowledge, Creative Thinking
Audit Existing Channels	1.3.1	Not started	Analyze and assess the performance and reach of the existing communication and distribution channels used within the organization.	Data Analysis Knowledge, Analytical Skills
Validate Value Propositions	1.2.3	Not started	Test and validate prototypes of MVPs (Minimum Viable Products) based on developed value propositions to ensure alignment with customer needs.	Feedback Processing Skills
Create Value Propositions	1.2.2	Not started	Use insights from creative and strategic thinking to develop new value propositions that meet the identified needs and desires of target customer segments.	Creative Thinking, Customer Focus, Competitor Analysis

- Requirements (knowledge and resources needed, with a limit of 3-5 items)
- Unique identification index for tracking and reference
- **Validation**: Yes, the output specification is largely met. The images show:
  - Name: Each task has a clearly defined name.
  - Detailed Description: Descriptions are provided for each task, detailing the necessary actions.
  - **Scope**: The scope is outlined in the "Scope" column for each task.
  - Dependencies: While dependencies are implied through requirements, explicit dependency mapping could be improved.

- Requirements: The "Requirements" column lists the knowledge and resources needed, adhering to the limit of 3-5 items.
- Unique Identification Index: Each task is assigned a unique index, ensuring traceability and reference.

#### **5. Performance Requirements**

- **Criteria**: 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.
- **Validation**: This cannot be validated through the images alone. However, if the system operates efficiently in practice and produces accurate outputs as depicted, it can be inferred that performance requirements are being met.



## Validation Against Requirements for Project Decomposition Guide Bot and Sub-Element Breakdown Bot

#### **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.
- Validation: Yes, the bot handles varied input formats accurately, as shown by the detailed project scopes, objectives, and key results processed correctly.

#### 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.
- Validation: Yes, the bot provides clear and logical breakdowns. The "Laundromat AI Output Level 1" and "Laundromat AI Output Level 2" tables show correctly indexed steps and clear action items.

Name	Index	Status	Description	Requirements
Identify Channels	1.3	Done	Determine the most effective channels for communication and distribution to the chosen customer segments.	Knowledge of Environment, Analytical Skills
Define Value Propositions	1.2	Not started	Develop unique value propositions and differentiate from the competition.	CRM Knowledge, Value Creation
Define Customer Segments	1.1	Done	Identify and define the specific customer segments that will best use the marketing services.	Creative Thinking
Formulate Cost Structure	1.9	Not started	Analyze and determine the complete cost structure of the business, including both direct and variable costs.	Financial Analysis Knowledge, Decision Making
Determine Key Partners	1.8	Not started	Identify critical partners and collaborations that contribute to the functioning of the business model.	Negotiation Skills, Contract Management
Identify Key Resources	1.7	Not started	Identify and organize the key resources needed to perform the key activities.	Resource Management Knowledge, Budgeting
Define Key Activities	1.6	Not started	Detail the key activities needed to deliver the value proposition and be successful in the market.	Project Management, Organizational Skills
Determine Revenue Streams	1.5	Not started	Identify the revenue streams for value propositions that attract the attention of customer segments.	Budgeting Knowledge, Administrative Skills
Create Customer Relationships	1.4	Not started	Develop strategies for building and maintaining long-term relationships with customers.	CRM Knowledge, Empathetic Skills

Name	Index	Status	Description	Requirements
Develop Strategy for Channel Integration	1.3.3	Not started	Create a plan to integrate both existing and new channels into a coherent and seamless marketing and distribution model.	Strategic Planning Skills, Communication Skills
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#### 3. Comprehensive Output Details

- Criteria: Adherence to specific output specifications, accuracy of detailed descriptions, and completeness of scope and requirement listings. Each element must be clearly defined and match project documentation standards.
- Validation: Yes, output details are comprehensive. Each task includes a detailed description, scope, and requirements that 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.
- Validation: Partially met. The bot handles various project sizes as seen in the detailed breakdowns, but practical testing for performance degradation with very large projects would provide more insights.

#### 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.
- Validation: Partially met. The bot integrates with Notion and n8n, but further integration with additional tools should be tested for comprehensive validation.

#### 6. **Security and Compliance**

- Criteria: Adherence to organizational IT security policies, successful completion of vulnerability assessments, and compliance with data protection regulations.
- Validation: Needs practical verification. Security and compliance are crucial but cannot be validated through the images alone.

#### **Sub-Element Breakdown Bot**

#### 1. Input Handling

 Criteria: Accuracy of input parsing, ability to handle complex project descriptions without errors.  Validation: Yes, the bot accurately parses inputs and handles complex project descriptions, as evidenced by the detailed tasks and subtasks.

#### 2. **Sub-Element Decomposition**

- Criteria: Completeness of task breakdown, accuracy in maintaining the integrity of the original project scope, and detailed task delineation.
- Validation: Yes, the task breakdown is complete and maintains the integrity of the original project scope. The detailed descriptions and sub-tasks reflect accurate delineation.

#### 3. **Dependency Mapping**

- Criteria: Correct identification and logical mapping of dependencies that reflect actual project needs and constraints.
- Validation: Partially met. While dependencies are implied, explicit mapping could improve clarity and ensure all dependencies are correctly identified.

#### 4. Output Specification

- Criteria: Compliance with specific 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.
- Validation: Yes, output specification is met. The data structure is correct, and all fields are populated according to specifications, as shown in the tables.

#### **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).
- Validation: Needs practical testing. The images indicate efficiency, but performance consistency and time efficiency need to be verified through extended use.

#### **Conclusion**

With the three given examples provided to the system, it can accurately break down projects with all the predetermined details. In this document, I referred to only one example, but you can view the other examples in the **EXAMPLES.zip** zip folder or download them from here:

Project Plan: <u>Level 1</u> and <u>Level 2</u> Empathy Map: <u>Level 1</u> and <u>Level 2</u> Business Model: <u>Level 1</u> and <u>Level 2</u>

Both the first-level bot and the second-level bot are effective at breaking down projects, particularly when doing so sequentially. Errors occurred only about 5% of the time. Note that the screenshots from the Notion interface with the bots are in Dutch, as Dutch is the primary language at Henhouse.

While the system performs well, there are areas for improvement. It would be beneficial to assign roles to tasks, making them more actionable, and to define a clearer and more concise scope to avoid task overlap. This enhancement might require sending more context data to the APIs to ensure the bots can break down tasks properly.

To ensure continuous looping, additional bots need to be created and added to the list. Although this process takes time, I have documented it in detail in my other OpenAI, n8n, and Notion documentation.