Evaluation Criteria: RAG Challenge

1. Retrieval & Answer Quality (Core Metric)

This is the primary metric, evaluating how well the system answers predefined test questions.

Scoring (Each 0-2 points per question):

- Relevance: Does the answer match the intent of the question? (Evaluated using LLM-based testing)
- **Grounding**: Is the answer clearly based on the provided HTML data? (Compared with ground-truth answers)
- Language Quality: Is the response well-structured, grammatically correct, and coherent? (LLM-based testing)
- Efficiency & Runtime: Is the system efficient in terms of retrieval and response generation? (Measured as execution time)

Weighting: **High** impact on the overall score.

2. System Architecture & Retrieval Logic

Assesses the design choices and implementation of retrieval methods. Make sure that you cover main points in the presentation.

Scoring (Each 1-5 points):

- Code Organization & Project Structure: Is the code well-structured, modular, and easy to run?
- **Data Processing & Storage Design**: Is the choice of database and processing pipeline logical and efficient? (Evaluated via human analysis)
- Retrieval Approach: Are indexing, chunking, and search methods effectively implemented?

3. Bonus / Creativity

Encourages innovation, extra effort, and usability enhancements.

Scoring:

- Bonus Features (0-3 points): Additional functionality like CLI, UI, dashboards, or visualizations.
- Novelty / Creativity (0-2 points): Unique approaches, hybrid methods, or novel integrations.
- Code Clarity & Usability (Each 1-5 points):
 - o Clarity & Structure: Is the code modular, documented, and easy to understand?
 - Setup & Runability: Can the solution be executed easily with a README or notebook?
- API Call Costs: Is the system optimized to minimize API calls and cost? (Tracked in the code logs)

Final Scoring:

- Retrieval & Answer Quality → ~50-60%
- System Architecture & Retrieval Logic → ~30-40%
- Bonus / Creativity → ~10-20%

Participants are encouraged to optimize their solutions for **accuracy**, **efficiency**, **and usability** while also exploring creative enhancements!

3. Example questions:

- 1. What company provides assisted living near Richmond, Virginia?
 - a. covenantwoods.com (and others possible)
- 2. What companies uses packaging materials in Valencia, California?
 - a. amsfulfillment.com (and others possible)
- 3. Who uses Agile Methodologies to deal with Marketing in Fort Lauderdale, FL?
 - a. <u>starmark.com</u> (and others possible)