**Aligned Anki CSV Generation Prompt (v9 - Incremental Output)**

**I. Objective** Generate an Anki-compatible CSV file for a set of practice questions based on the lecture materials and benchmark question sets defined below. The output must be a **series of correctly formatted text blocks (batches)**, delivered incrementally and ready for direct import into Anki, strictly adhering to all formatting and content rules.

**II. Configuration & Input Files** *Instructions: To adapt this prompt for a new topic, edit the placeholder values in this section.*

* **Lecture Topic:** Week 4 CT
* **Primary Source File (Transcript):** CT1\_Week4\_Transcripts\_Combined.pdf
  + **Purpose:** The main source for concepts, logic, and detailed explanations. This file is the primary authority on content.
* **Supplementary Source File (Slides):** CT1\_Week4\_Slides\_Combined.pdf
  + **Purpose:** A secondary source for formal definitions, diagrams, and key terms.
* **Benchmark Files:** W4\_Practice\_Solution.pdf and Week-4 Final GA with solution.pdf
  + **Purpose:** A collection of files that collectively define the style, structure, phrasing, and minimum difficulty for all generated questions.

**III. Core Instructions**

**A. CRITICAL CSV STRUCTURE & HTML FORMATTING (MANDATORY)**

* **File Format:** The output must be a series of text blocks, each formatted as an Anki-ready CSV file.
* **Encoding:** UTF-8.
* **CSV Rules:** Fields must be separated by a semicolon (;) and enclosed in double quotes ("). Internal double quotes must be escaped by doubling them (e.g., He said ""hello"").
* **Header Row:** The header row must be exactly: "Front";"Back";"Extra". **This header must only appear as the first line of the very first batch.** Subsequent batches must start directly with the first question's data.
* **HTML Usage:** Strictly use only <ul>, <li>, <b>, and <br>. DO NOT USE the <pre> tag. For any content requiring preserved line breaks, such as pseudocode, use <br> tags to create manual line breaks.

**B. Flashcard Content Structure (Critical)**

* **"Front" Column:** Must contain the question and all necessary context in the following order:
  1. The question text. For multiple-correct-choice questions, include a phrase like "Select all that apply."
  2. If the question refers to a specific block of pseudocode or data, the full, relevant block must be included, using <br> for line breaks.
  3. The complete HTML list of multiple-choice options, structured as <ul><li>Option A</li><li>Option B</li>...</ul>.
* **"Back" Column:** Must contain only the correct answer identifier(s), using the strict format "Correct: x)" for single answers or "Correct: x), z)" for multiple answers.
* **"Extra" Column:** Must contain a detailed explanation and distractor rationale in the exact format: "<b>Explanation:</b> [Explanation text].<br><b>Distractor Rationale:</b><ul><li>[Rationale for option a]</li><li>[Rationale for option b]</li>...</ul>".

**C. Content and Sourcing Requirements**

* **Source Material:** All content must be based only on the provided source files.
* **Question Generation Strategy:**
  1. **Incorporate Benchmark Questions:** First, convert every single question from all specified [[Benchmark Files]] into the Anki CSV format and include them in the deck. This establishes the baseline. Convert fill-in-the-blank questions to multiple-choice.
  2. **Analyze Style & Difficulty:** Analyze the benchmark questions to understand the required style, structure, and phrasing. All newly generated questions must be of an equal or higher difficulty level.
  3. **Generate Additional Questions:** Create new questions to cover all the topics from the lecture materials that were not already addressed by the benchmark questions. A significant portion must be multiple-correct-choice.
  4. **Meet Question Count:** The number of newly generated, additional questions must be 3 to 5 times the total number of questions found in all [[Benchmark Files]] combined.

**IV. Output & Interaction Protocol (MANDATORY)**

1. **Generate First Batch:** Output the first batch of 20 questions. This batch **must** begin with the CSV header line: "Front";"Back";"Extra".
2. **Await Confirmation:** Pause and wait for the user to confirm they have copied the batch.
3. **Generate Subsequent Batches:** Upon confirmation, output the next batch of 20 questions. These subsequent batches **must not** include the header.
4. **Repeat:** Continue this process of generating a 20-question batch and waiting for confirmation until all questions have been delivered.
5. **Final Step:** After outputting the final batch, proceed immediately to the Self-Validation Protocol.

**V. Raw CSV Example (Illustrating Correct <br> Usage)** "Front";"Back";"Extra" "Given the following pseudocode:<br>Procedure Foo(n)<br> count = 0<br> for i from 1 to n<br> count = count + i<br> return count<br>End Procedure<br>What is the primary function of this code?<ul><li>a) It calculates the sum of numbers from 1 to n.</li><li>b) It counts only the even numbers up to n.</li><li>c) It finds the factorial of n.</li></ul>";"Correct: a)";"<b>Explanation:</b> The procedure initializes a counter to 0 and then iterates from 1 to n, adding the value of the iterator 'i' to the counter in each step. This is the standard algorithm for summing a series of integers.<br><b>Distractor Rationale:</b><ul><li>b) There is no condition in the loop (like an 'if' statement) to filter for even numbers.</li><li>c) A factorial would involve multiplication (count = count \* i), not addition.</li></ul>"

**VI. Self-Validation Protocol & Compliance Enforcement (MANDATORY - Must be output in the chat window)**

* **Initiate Validation:** After generating the **final** batch of CSV data, begin a rigorous self-validation check against the core instructions.
* **Generate Compliance Report:** Following the final batch, generate a new section titled "Compliance Report".
  + The report must begin with a clear status label: Compliance Status: Compliant or Compliance Status: Non-Compliant.
  + The report must include the mandatory checklist below. For each point, provide a brief (<15 words) confirmation of how the requirement was met.
* **Enforcement:** If any item in the checklist is non-compliant, you must state the issue and correct the output until all criteria are met and explicitly confirmed as Compliance Status: Compliant.

**Mandatory Compliance Checklist (Must be output in the chat window)**

* **File Format & Header:**
  + **Check:** Was the output a series of CSV text blocks with the header "Front";"Back";"Extra" appearing only on the first line of the first batch?
  + **Confirmation:** [Provide brief confirmation]
* **Delimiter & Quoting:**
  + **Check:** Do all fields use a semicolon separator and are all fields enclosed in double quotes?
  + **Confirmation:** [Provide brief confirmation]
* **HTML Tag Usage:**
  + **Check:** Is formatting restricted only to <ul>, <li>, <b>, <br>? Is the <pre> tag completely avoided?
  + **Confirmation:** [Provide brief confirmation]
* **Question Variety & Difficulty:**
  + **Check:** Does the output include multiple-correct-choice questions, and are new questions of equal/higher difficulty?
  + **Confirmation:** [Provide brief confirmation]
* **Benchmark Inclusion:**
  + **Check:** Have all questions from all benchmark files been included?
  + **Confirmation:** [Provide brief confirmation]
* **Question Count:**
  + **Check:** Does the number of additional questions meet the 3x-5x guideline based on the total from all benchmark files?
  + **Confirmation:** [State total benchmark questions, total new questions, and confirm it meets the requirement.]
* **Self-Containment:**
  + **Check:** Does each card provide sufficient context to be answered without external information?
  + **Confirmation:** [Provide brief confirmation]