Workflow Scenarios Explained in Detail

Scenario 1: Workflow Without SummarizeText

When to Use:

? The uploaded study material is already well-structured, clear, and doesn?t require condensation or simplification.

? Ideal for short documents, pre-formatted content, or teacher-prepared materials.

Step-by-Step Explanation:

? Step 1: Teacher uploads study materials (PDF/Text).

? Step 2: PDFProcessingService extracts raw text and metadata.

? Step 3: StudyMaterialService organizes study material by subject/topic.

? Step 4: BotActivationService consumes material directly for AI prompts.

? Step 5: AI generates lessons, quizzes, and study guides.

Key Advantages of Scenario 1:

? Faster Workflow: Fewer steps and direct material consumption.

? Efficient for Short Content: Ideal for pre-processed and clean materials.

? Less Resource-Intensive: Avoids additional computational overhead from summarization.

Limitations:

? May not handle lengthy or unstructured documents effectively.

? Raw text might overwhelm the AI if it?s verbose or contains irrelevant data.

Scenario 2: Workflow With SummarizeText

When to Use:

? The uploaded content is long, verbose, or unstructured.

? Ideal for text-heavy PDFs, academic papers, or uncategorized documents.

Step-by-Step Explanation:

? Step 1: Teacher uploads study materials (PDF/Text).

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? Step 3: SummarizeText simplifies and condenses raw text.

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? Step 4: StudyMaterialService organizes summarized study material.

? Step 5: BotActivationService consumes summarized material for AI prompts.

? Step 6: AI generates lessons, quizzes, and study guides.

Key Advantages of Scenario 2:

? Improved Clarity: Summarized content enhances AI understanding and focus.

? Handles Long Content Well: Effective for lengthy documents or verbose material.

? Better User Experience: Lessons and quizzes are more refined and on-point.

Limitations:

? Adds an extra step to the workflow.

? Slightly higher computational cost due to summarization.

Comparison Summary

Feature	Scenario 1	Scenario 2
Best For	Clean, short, pre-organized content	Long, verbose, unstructured text
Workflow Steps	5 Steps	6 Steps
Processing Time	Faster	Slightly slower
AI Prompt Clarity	Moderate	High
Use of Summarization	No	Yes
Resource Usage	Lower	Slightly higher

Final Recommendation

? Scenario 1: Use when the study material is pre-processed, clean, and short.

? Scenario 2: Use when the material is lengthy, verbose, or unstructured.

Pro Tip:

? Keep both workflows available.

? Allow teachers to choose summarization as an optional step during upload.

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??? How Teachers Choose Between Scenario 1 and Scenario 2

Teachers can choose between Scenario 1 (Direct Use of Uploaded Study Material) and Scenario 2 (Summarized Study Material) during the upload process in the teacher dashboard. Below are the details on how this choice is presented and processed.

1. User Interface Choice During Upload

When teachers upload study material (PDF/Text), they will see an Upload Settings Panel with the following options:

? ? Option 1: Direct Use (Scenario 1)

?   - Description: Use the uploaded study material directly without summarization.

?   - Best for: Clean, short, and pre-organized documents.

?   - Toggle/Button: [Direct Use]

?

? ? Option 2: Summarized Content (Scenario 2)

?   - Description: Summarize the uploaded material before feeding it to the AI.

?   - Best for: Lengthy, verbose, or unstructured documents.

?   - Toggle/Button: [Summarize Before Use]

2. Backend Workflow Based on Teacher?s Choice

When the teacher selects an option, the backend handles it as follows:

? ?? Direct Use (Scenario 1):

?   - Processed directly by PDFProcessingService.

?   - Organized by StudyMaterialService.

?   - Consumed by BotActivationService for AI prompts.

?

? ?? Summarized Content (Scenario 2):

?   - Text extracted by PDFProcessingService.

?   - Passed to SummarizeText.py for summarization.

?   - Organized by StudyMaterialService.

?   - Consumed by BotActivationService for AI prompts.