



Best Practices & Use Cases for Threads

Table of Contents

Overview	6
Supported file types	6
Use cases:	6
1. Text Understanding and Processing	6
a. Question Answering (Q&A): Ask direct questions about the document, and the LLM will search for and provide precise answers based on the text within.	6
b. Summarization: Generate a concise document summary, highlighting the key points and main ideas.	6
c. Text Analysis: Analyze the document's sentiment, tone, or overall style.	6
d. Generate Text: Generate appropriate text based on input parameters such as tone, level of formality etc.	7
e. Contextual Understanding: Use the document's context to provide more accurate and relevant responses to your queries.	7
2. Data Extraction	7
a. Table and Chart Extraction: Extract tabular data or numerical content for analysis.	7
b. Highlight Important Sections: Flag critical points, such as action items in a business report.	7
c. Information Extraction: Pull out specific data points or details like names, dates, locations, or other relevant information from the document.	7
3. Document Analytics	8
a. Trend Identification: Detects patterns or trends in textual data.	8
b. Textual Analysis: Analyze word frequency, themes, or key phrases.	8
c. Comparison: Compare different sections or documents to identify similarities and differences.	8
d. Compare various documents to identify similarities and differences.	8
4. Interaction Across Multiple Documents	9
a. Cross-Document Analysis: Compare, merge, or correlate data from different sources.	9
b. Multi-Document Summaries: Combine insights from several documents into one report	9
5. Advanced Knowledge Tasks	9
a. Insights Generation: Provide actionable recommendations based on the document.	9
b. Topic Modeling: Group related content into themes for better understanding.	9
c. Contextual Inference: Draw inferences or conclusions from the provided content.	9
6. Workflow Automation	10
a. Content Summaries for Reports: Automate summaries for business or academic reports.	10
b. Generate Tasks or Action Items: Create to-do lists from meeting notes or project plans.	10
c. Document Comparison: Highlight differences between versions of a document.	10
7. Scenarios that didn't work as expected	10

Overview

This document outlines the best practices and use cases executed for using threads

Supported file types

The thread functionality supports the single file upload and the file types supported are:

1. CSV
2. PDF
3. DOCX
4. XLSX
5. TXT

Use cases:

1. Text Understanding and Processing

- a. Question Answering (Q&A): Ask direct questions about the document, and the LLM will search for and provide precise answers based on the text within.
- b. Summarization: Generate a concise document summary, highlighting the key points and main ideas.
- c. Text Analysis: Analyze the document's sentiment, tone, or overall style.
 - i. The prompt tried to test the above use cases as a file has been uploaded consisting of the response to the proposal and the query tried out is:
 1. *"Generate a concise summary of the document, highlighting the key points and main ideas. Analyze the sentiment, tone, or overall style of the document, create the executive summary, Project scope, and deliverables, implementation timeline, Budget estimation, and financial justification. Conclusion and call to action."*
 - ii. When interacting with threads, including file uploads, and there are multiple file uploads in the history, the best practice to follow is described below in the form of examples.
 - iii. Here the user is "James Smith". James has uploaded a single CSV file named as "Financial details 2024-25" and is looking for a summarisation of it. The prompt that will work is

1. *"Summarise 'Financial details 2024-25' for me"*
 2. *"Summarise the "Financial details"*
- iv. Prompts are to be used when there is a single file available in the history
 1. *"Summarise the document for me"*
 2. *"Summarise it for me"*
 3. *"Summarise financial information for me"*
 4. *"Translate the above file in the French language"*
 5. *Translate it in <Language Name>*
- d. Generate Text: Generate appropriate text based on input parameters such as tone, level of formality etc.
 - i. To try the Generate Text use case with Kadal threads, the file consisting of the product support document was uploaded and the prompts tried were:
 - ii. *"Help me in generating the response on the query " How the connector can be created" Please make sure the tone is formal and humble as I am part of the product support team and the requestor is at the senior management level"*
- e. Contextual Understanding: Use the document's context to provide more accurate and relevant responses to your queries.
 - i. To try the contextual understanding use case with Kadal threads, the file consisting of the "Incident report on the production environment" was uploaded and the prompts tried with the file were:
 - ii. *"Why did production login failure occur?"*
 - iii. *"What was the downtime?"*
 - iv. *"How can we prevent login failures in the future?"*

2. Data Extraction

- a. Table and Chart Extraction: Extract tabular data or numerical content for analysis.
- b. Highlight Important Sections: Flag critical points, such as action items in a business report.
- c. Information Extraction: Pull out specific data points or details like names, dates, locations, or other relevant information from the document.
 - i. When interacting with threads including file uploads, the best practice to follow is described below in the form of examples:
 - ii. Here the user"James Smith" has upload a PDF "Data extraction" and that PDF is having data on how to use tables, graph and piecharts
 - iii. The prompt that can work to fulfill the above scenarios is:
 1. *"Identify any tabular data or numerical content in the Data Extraction.pdf."*

2. *"Flag the critical points in the Data Extraction.pdf"*
3. *"Analyse the Data Extraction.pdf and give the critical points"*
4. *"Provide me the graph available in Data Extraction.pdf"*
5. *"Give me information on "Presumptive diagnoses in patients attending pediatric outpatient department" from the document provided above. Do not respond/add anything beyond the information available in the document"*
6. *"Give me the References from the document above"*

3. Document Analytics

- a. Trend Identification: Detects patterns or trends in textual data.
- b. Textual Analysis: Analyze word frequency, themes, or key phrases.
 - i. When trying to compare specific documents then the best practice to follow is to provide the document name in the prompt
 - ii. When trying to look out for all the documents available as a part of history then the best practice to follow is to provide the in prompt. E.g.
 1. *"provide the theme, word frequency, or count of keyphrases"*.
 2. *"Provide the theme, word frequency, and count of keyphrases of all the documents"*
- c. Comparison: Compare different sections or documents to identify similarities and differences.
 - i. When trying to compare specific sections from the document then the best practice to follow is to provide the document name and the section name in the prompt
 - ii. Sample use cases:
 1. The user has uploaded different version release notes of the same product and has asked the query. *"Compare API changes from the release notes"*.
"Compare the improvements from the release notes and provide the similarities and differences in tabular format."
 2. *"Compare <section name> from the <document name>"*
- d. Compare various documents to identify similarities and differences.
 - i. When trying to compare specific documents then the best practice to follow is to provide the document name in the prompt
 - ii. When trying to compare all the documents available as a part of history then the best practice to follow is to provide the prompt. E.g. *" Compare all the documents provided till now and provide the comparison in the tabular format"*.
 - iii. *"Compare the <document name> and highlight the differences."*
 1. *It highlights the differences of the document name with different versions*

4. Interaction Across Multiple Documents

- a. Cross-Document Analysis: Compare, merge, or correlate data from different sources.
- b. Multi-Document Summaries: Combine insights from several documents into one report
 - i. When trying to compare specific documents then the best practice to follow is to provide the document name in the prompt
 - ii. When trying to merge, compare, or correlate data from different documents the best practice is to provide the document name or provide all in the prompt if all the documents uploaded in the session need to be considered.
 - iii. Sample use cases
 1. *"Compare all the documents provided till now and provide the comparison in the tabular format".*
 2. *"Provide a consolidated report of all the documents"*
 3. *"Compare the <section name> from the <document name> and provide a consolidated report in the <specified format>*

5. Advanced Knowledge Tasks

- a. Insights Generation: Provide actionable recommendations based on the document.
- b. Topic Modeling: Group related content into themes for better understanding.
- c. Contextual Inference: Draw inferences or conclusions from the provided content.
 - i. A case study was uploaded and the prompts asked were
 1. *"What recurring themes or patterns can you identify across the three sections of the case study?"*
 2. *"Analyze the tone of each section. Is it more optimistic, critical, or neutral? Provide examples to support your analysis."*
 3. *"How do the policies described in Section 3 influence or interact with the efforts in Sections 1 and 2?"*
 4. *"Identify emerging trends in sustainable technology practices."*
 5. *"Group related content into themes for better understanding."*
 6. *"Compare the different sections to evaluate the effectiveness and interconnectivity of the described initiatives."*

6. Workflow Automation

- a. Content Summaries for Reports: Automate summaries for business or academic reports.
 - i. The prompt to try this usecase with file upload is A case study was uploaded and the prompt given was:
 1. *“Summarise the case study into a concise and professional summary. The summary should: Clearly state the report’s primary objective. Highlight key findings, results, or insights. Include critical conclusions or actionable recommendations. Ensure the tone is formal and suitable for stakeholders such as executives, researchers, or decision-makers. Limit the summary to 200 words. Use bullet points for clarity if needed.”*
- b. Generate Tasks or Action Items: Create to-do lists from meeting notes or project plans.
 - i. Meeting notes were provided in the document and the following prompt was used to generate the response
 1. *Generate a detailed to-do list from the following meeting notes The to-do list should: Break tasks into actionable items. Assign responsible team members if specified. Include deadlines or priority levels if mentioned. Group related tasks under appropriate categories. Present the to-do list in a structured format, using bullet points or numbered lists.”*
- c. Document Comparison: Highlight differences between versions of a document.
 - i. This scenario works when the file name is in the prompt. However, there are certain hallucinations observed with different scenarios which are highlighted in the below section.

7. Scenarios that didn't work as expected

- a. While uploading the same document gave the prompt *“Compare this document with the previous document uploaded and highlight the differences only”*. In response it compared the different documents and the uploaded and previous documents were ignored.
- b. When uploaded different versions of the same document, and switched the model while interacting, the responses were hallucinating.
 - i. Scenario:
 1. *Uploaded the document consisting of five chapters as “A tale of Five Compatibility”*

2. *Reuploaded the document consisting of three chapters only as “A tale of Five Compatability” And asked the query “Compare this document with the previous document uploaded and highlight the differences only”*
 3. *The response was for old documents and the uploaded documents were not considered.*
 4. *Then ran the query” Compare a Tale of five capabilities and highlight the differences only”*
 5. *The responses consisted of the file name provided, however the version 1 consists of 5 chapters and version 2 consists of 3 chapters only was not reflecting in the response.*
 6. *Uploaded the third version of the same document with the same name but consisting of 2 chapters only and then asked the query” how many versions exist in a repository with the same name "A Tale of Five Capabilities"”. The response was correct that is three*
 7. *Now changed the LLM model and asked to compare all three versions, and this was the exact response “Kadal bot You are absolutely correct! I apologize for the error in my previous responses. I am still under development and learning to accurately identify and differentiate between distinct versions of text, especially within a continuous stream of conversation.*
It seems I am prone to hallucinating a third version of "A Tale of Five Capabilities" when the provided context only contains two. I am working on improving my ability to recognize and process information accurately without fabricating nonexistent details.
Thank you for your patience and understanding as I learn and grow. I will strive to provide more accurate and helpful responses in the future.”
 8. *Changed to original model and asked the query: “Do not merge the versions and tell me how many chapters are there in each version”. In the response this time it understood that version 2 contains chapter 3 only and version 1, 5 chapters. However for latest version it gave incorrect response still.*
- c. When uploaded new document and asked “Provide the actionable recommendations based on the document” It was referring to the old document only provided in the history [Please note: It was referring to single document only and not multiple documents which were available in history and the document it was referring to was not a part of last 5 conversations it was much older than that]

- d. When referred to the past thread session and asked the query “In your history I can view the documents do you still have memory of it?” The AI response consisted of the memories of past conversations referring to other conversations/sessions
- e. When multiple documents are uploaded and available in the history. The scenario is “User has uploaded a file “Financial Representation” and the user has added the prompt “Summarise the document”, at that time the Thread refers to the history and is referring to the document available in the history and ignoring the financial representation.