



Assignment 2

Retrieval Augmented Generation for Supreme Court of Pakistan Judgements

Course: Text Analytics

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Section 1: Domain and Problem

The backdrop domain of this project is legal/judiciary – the collection of judgments issued by the [Supreme Court of Pakistan \(SCP\)](#) [1], the apex court responsible for interpreting constitutional, civil, and criminal law in Pakistan. Given the extensive, yet actively updated, archive of complex, precedent-setting judgments, a RAG system can aid users in efficiently retrieving and understanding relevant case law and rulings. These users could include students of law, legal or judicial practitioners or researchers, law clerks at SCP, and also the general public interested in current judiciary news.

The utility from this system for these beneficiaries would entail, for example, summarization of specific case judgements, re-ordering of most relevant cases as per the query search. While the motivation to choose this domain was the inability of existing LLMs (ChatGPT in particular) to give relevant answers to general or specific questions about cases already present on the SCP website. This gives us a ground to initiate, explore and build a tailored RAG skeleton capable of generating, interpreting and answering queries about SCP judgments.

Section 2: Corpus Generation

The automated workflow to generate the final corpus is divided into three stages all of which were done on **Local Machine**. The DocScraper Notebook scrapes judgments and associated metadata from the Supreme Court of Pakistan (SCP) website. Only approved for reporting judgements in the years 2022-2024 were downloaded. In addition, the metadata of those judgments is also extracted—such as case subject, number, title, author judge, and judgment date— and saves them as a CSV. However, the web scraped judgements are saved as PDFs.

The second stage involves the PDF2TXT&CSV notebook which converts downloaded PDFs into plain text files and associates them with their metadata. It performs Optical Character Recognition (OCR) on PDFs where required and makes a csv file where each row represents one judgment where text content is in the 'content' field and its associated metadata is also included in the row.

The final stage is that of preprocessing followed in the TextPreprocessing notebook. The cleaning steps included:

- Removing rows with title containing 'Urdu' | 'Translation' as it will have 'Urdu'/'Arabic' text content which is outside the scope of this project.
- Removing non-textual elements from content like page numbers (identified by the pattern Page X) and Non-ASCII characters (keeps only standard English letters, digits, and newlines).
- Normalizing Whitespace: replace multiple spaces with a single space, replace newline characters that are surrounded by spaces (\n) with just \n and limit consecutive line breaks to no more than five consecutive line breaks, reducing excessive empty lines.
- Removing specific redundant phrases (like "in the supreme court of pakistan," "approved for reporting," and "in the court of law").
- Manually fill in a missing value for a judgment date at index 263 by specifying "28-11-2022" which is the hearing date mentioned in the judgment. This metadata was N/A on the website itself from where the document is scrapped.
- Lowercasing all entries including the column names and dropping redundant columns.

Section 3: Corpus and Metadata information

The working in the previous section produces the final corpus titled SCP_Judgements_Cleaned_with_Metadata as a CSV which is used for the RAG working implemented on **Kaggle GPU T4 x2**. Though the corpus size in the DocScraper stage was reduced to 270 documents for current iteration from previous Scrapping of documents from 1980-2024, the corpus size here was still satisfactory with almost over 1000 pages and varying character length from 1K to 100K.

This section is to illustrate the inherent common structure of the corpus. The judgements ranged from 2-3 pages to 20+ to even 50 pages long. Within each judgment nested regular aligned and well spaced paragraphs serving as the body, above which were the case details such as title, number, judges, etc. The motivation to choose 2022-2024 judgements only was to take data that most of the LLMs may not have been trained on (as they are trained till 2021 data). Similarly, Metadata was also extracted to enhance RAG.

Section 4: Text Splitter

Text splitting or Chunking is a process of dividing large documents into smaller, manageable sections to ensure efficient processing, retrieval and embedding in models with token or character limits (Figure 1) [7]. It enables the maintenance of context continuity and allows embedding models to capture nuanced information from each chunk without exceeding their constraints, improving the accuracy and efficiency of the task.

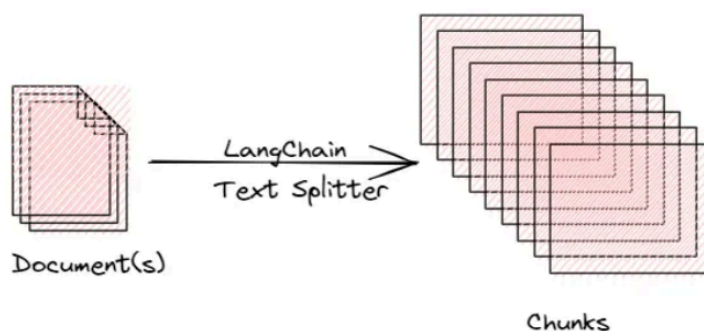


Figure 1: Chunking (Harsh Vardhan, Medium)

The choice of text splitter is determined by the type of text splitter for text segmentation. Our documents lack subsections and follow a consistent structure:

1. Bench Member Names
2. Petition No.
3. Petitioner/Appellate versus Respondent Names
4. Representative Names
5. Judgment/Order (Core of the documents)

The Judgment/Order section forms the core content of the documents. It was highly uniform and continuous without explicit subsections. A detailed analysis of the content and metadata lengths in our documents guided the development of a chunking strategy.

Character splitting is the most basic text splitting technique in LangChain, dividing text based on a specified number of characters, used for documents with consistent structure and formatting. Text splitting is done on characters and the number of characters determines the `chunk_size`. The `chunk_overlap` helps retain the semantic context between chunks and the metadata can be passed along with the documents.

Based on the uniformity and the lack of clearly defined subsections, we selected a character-based splitter.

Semantic splitting would not have been as effective as a token/character-based splitter due to lack of subsections.

This strategy balances granularity and contextual coherence while adhering to the limitations of embedding models and retrieval requirements.

We took the following steps for text splitting:

- Measured the content and metadata lengths
- Calculated the average number of content characters (excluding 4 outliers) = 13874 and their proportions; We found the majority of the documents to be below Average Character Length = 67%
- Calculated splits by dividing the Average Character Length by 5 chunks = 2775
 - We propose a chunk size of 2500 characters with 10% overlap that is seemingly appropriate as small documents are covered completely in 1-2 chunks, and large documents divided into 3-5 chunks, effectively capturing the key areas
 - A smaller chunk size ~ 1000 character seemed impractical due to potential fragmentation that could hinder effective retrieval of legal judgments often presented as continuous passages

The embedding model's 1024-dimensional vector representation is well-suited for legal texts. However, the 512-token limit ~ 2048 characters requires careful chunk size planning (kirouane Ayoub, Medium). Considering the nature of our data, our query requirements, computational limits and speed-accuracy tradeoff, 1800 characters with 200 characters overlap was optimal, ensuring the combined size inclusive of metadata to be approximately 2000 characters - aligning with the model constraints (See Figure 2 and 3). Character-based splitting with overlapping allows context continuity along with meeting embedding model's token limit. Row-wise splitting allowed us to preserve individual judgements as separate documents. `RecursiveCharacterTextSplitter` from LangChain was selected for implementation [5, 6].

IN THE SUPREME COURT OF PAKISTAN
(Appellate Jurisdiction)
Present:
Mr. Justice Amin-ud-Din Khan
Mr. Justice Muhammad Ali Mazhar
Mr. Justice Irfan Saadat Khan
Civil Petition No. 2367 of 2024
Appeal against the judgment dated
27.03.2024 passed by the Peshawar
High Court, Peshawar in

Splitter: Character Splitter
Chunk Size: 1800
Chunk Overlap: 200
Total Characters: 22467
Number of chunks: 13
Average chunk size: 1728.2

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Present:
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Civil Petition No. 2367 of 2024
Appeal against the judgment dated
27.03.2024 passed by the Peshawar
High Court, Peshawar in
W.P.No.3377-P/2023
The Executive Director (P&GS) State Life, Principal
Office Karachi and others

Petitioners

Versus

Muhammad Nisar, Area Manager, State Life
Corporation of Pakistan, Peshawar Zone, Peshawar Respondents
For the Petitioners: Malik Jawwad Khalid, ASC
Mr. Anis Muhammad Shahzad, AOR
For the Respondent: Mr. Noor Muhammad, ASC
(Through video link at Peshawar)
Date of Hearing: 16.09.2024

JUDGMENT

Muhammad Ali Mazhar, J:- This Civil Petition for leave to appeal is directed against the Judgment dated 27.03.2024 passed by the Peshawar High Court ("High Court") in W.P.No.3377-P/2023 whereby the writ petition filed by the respondent was allowed.
2. The transitory facts of the case are that the respondent, at the time of his appointment, submitted relevant documents to show his date of birth as 22.09.1964. Therefore, as per departmental procedure, the respondent was intimated, on 27.02.2023, that he will attain the age of superannuation on 30.06.2024. The respondent, after receiving this intimation, filed a departmental representation wherein he insisted that his date of birth is 22.09.1966, according to C.P.No.2367/2024 -2- which he will attain the age of retirement on 21.09.2026. The competent authority dismissed the representation vide order dated 07.06.2023 and the respondent challenged this order and the letter dated 27.02.2023 by dint of W.P. No.3377-P/2023 before the Peshawar High Court, which was accepted vide impugned judgment.
3. The learned counsel for the petitioner argued that the learned High Court overlooked the documents produced by the petitioners that show the date of birth of the respondent as 20.09.1964, which was also mentioned in his old identity card as well as in his passport, which were produced by the respondent. It was further argued that the respondent did not seek any correction regarding

Figure 2: Visual representation of chunk_size = 1800, chunk_overlap = 200 (chunkviz.com)

such person from the plaintiff who is not found to be a proper or necessary party.

8. The expression misjoinder of party connotes that when somebody who has nothing to do with the cause of action is pleaded in the suit. The expression misjoinder also refers to an inappropriate association of a party to a criminal or civil lawsuit. The act of misjoinder of party or parties triggers unnecessary perplexity and inexactness in the legal proceedings which should have been avoided when a lawsuit is set into motion for redress of any grievance or claim. Whereas the non-joinder of a necessary party means the failure, of a person who should have been included either as a plaintiff or defendant, to join as party to a suit. No doubt, the suit may not be solely dismissed on ground of non-joinder, but the court may allow necessary parties to be joined at any stage of the proceedings, but it is to be kept in mind that the decree or order of the Court cannot be effectively executed against the person who is not a party to the proceedings. A necessary party is that in whose absence the court cannot pass an effective decree. However, the objections to non-joinder or misjoinder should have been raised at an early stage. C.P.No.2367/2024 -5-

If objection as to misjoinder or non-joinder are not raised in the court of first instance, then it may not be treated as a good ground for reversing decree or order when it does not prejudice the merits of the case. According to Section 99 of the Code of Civil Procedure, 1908 ("CPC"), it is clearly provided that no decree shall be reversed on substantially varied, nor shall any case be remanded, in appeal on account of any misjoinder of parties or causes of action or any error, defect or irregularity in any proceedings in the suit, not affecting the merits of the case or the jurisdiction of the Court. It is quite significant to note the language of this Section; it only accentuates the term "misjoinder" and not "non-joinder" which has its own implication and aftermath that it does not apply to non-joinder of a necessary party. The basic idea is to ensure that the Court should not render any decree or order which would be unproductive and redundant.

9. Under sub-article 5 of Article 199 of the Constitution of the Islamic Republic of Pakistan, 1973 ("Constitution"), the expression "person" includes any body politic or corporate, any authority of or under the control of the Federal Government or of a Provincial Government, and any Court or tribunal, other than the Supreme Court, a High Court or a Court or tribunal established under a law relating to the Armed Forces of Pakistan. In the same context, Order 1 Rule 1, CPC, is quite relevant which accentuates that all persons may be joined in one suit as plaintiffs in whom any right to relief in respect of a transaction or a series of acts or transactions is alleged to exist, whether jointly, severally, or in the alternative, where, if such persons brought separate suits, any common question of law or fact would arise. While Rule 3 elucidates that all persons may be joined as defendants against whom any right to relief in respect of or arising out of the same act or transaction or series of acts or transactions is alleged to exist. However, under Order 1 Rule 10, CPC, it is provided, as a matter of convenience, that where a suit has been instituted in the name of the wrong person as plaintiff or where it is doubtful whether it has been instituted in the name of the right plaintiff, the Court may at any stage of the suit, if satisfied that the suit has been instituted through a bona fide mistake, and that it is necessary for the determination of the real matter in dispute so to do, order any other person to be substituted or added as plaintiff upon such terms as the Court thinks just. At the same time, under sub-rule (2), the Court may at any stage of the proceedings, either upon or without the application of either party, and on such terms as may appear to the Court to be just, order that the name of any party improperly joined, whether as plaintiff or defendant, struck out, and that the name of any person who ought to have been joined, whether as plaintiff or defendant, or whose presence before the Court may be necessary in order to enable the Court effectually and completely to adjudicate upon and settle all the questions involved in the suit, be added.

Figure 3: Visual representation of chunk_size = 1800, chunk_overlap = 200 (chunkviz.com)

Areas highlighted by different colours represent the chunks. The area shaded green represents the character overlap.

The chosen chunk_size, 1800 characters, with 200 character overlap achieves an ideal balance between granularity and contextual coherence. Combined with character-based splitting enabled us to effectively segment and retrieve our documents while accommodating embedding model constraints.

Section 5: Chunking Strategy

“Your goal is not to chunk for chunking sake, our goal is to get our data in a format where it can be retrieved for value later.”

- Greg Kamradt

Recursive chunking method recursively calls itself while dividing the text into smaller chunks in a hierarchical and iterative manner using a set of separators, if the initial attempt at splitting does not produce the desired chunk size. For each iteration, the resulting chunks have different separators until desired chunk size is achieved. LangChain framework using default separators (“\n\n”, “\n”, “;”, “,”) [10].

We handled our metadata as follows:

- Each judgement content is split into smaller, manageable chunks, with a specified chunk size of 1800 characters and an overlap of 200 characters between consecutive chunks through RecursiveCharacterTextSplitter.
- For each judgement its relevant metadata such as the case subject, case number, case title, author judge, and judgment date, was formatted into a metadata string.
- For each chunk its respective metadata string was embedded in it.

The key advantage of our strategy to handle metadata over keyword or fuzzy clustering was the assumption that the user will naturally include a reference to a specific case in the query []. This approach avoids the limitations of filter-based queries, where metadata filters are rigid and may miss subtle case variations as displayed by the two examples below:

Filter-based Query: ("What was supreme court's judgement regarding section 63 of constitution?", metadata filters: {title:"A versus B"})

Metadata Embedded Query: "In A versus B what was supreme court's judgement regarding section 63 of constitution?"

Our approach splits large documents into smaller sections while embedding key metadata within each section for content and context preservation, ensuring the chunks remain coherent, suitable for efficient processing, retrieval and analysis for detailed understanding.

Section 6: Retrieval Improvement

Metadata improves retrieval accuracy and efficiency in RAG systems by contextualizing retrieved data, efficient document ranking, improves filtering, acts as a relevance signal and allows personalization based on past queries, preferences, and domain.

Metadata filtering is an effective strategy for improving retrieval using tags allowing filtering the data using various filters (Sthanikam Santhosh, Medium). Fuzzy filtering handles spelling mistakes and approximate matches. Semantic search embeds metadata into the chunks, offering a deeper understanding of the context and meaning behind the query, can retrieve more accurate and relevant results. Despite errors in a query, semantic search focuses on overall meaning. Filter-based methods require user awareness of the metadata tags available in the database and construct queries accordingly. Compared to semantic search, there is no need for the user to know or specify metadata tags. The system can automatically interpret and match the query with relevant information, making the search process more intuitive and user-friendly.

Section 7: Embeddings

Word embedding or word vector is an approach to represent documents and words numerically, allowing words with similar meanings to have the same representation, approximate meaning and represent a word in a lower dimensional space (See Figure 4). The embedding matrix helps the model understand linguistics and solves real-world problems in NLP [13,14].

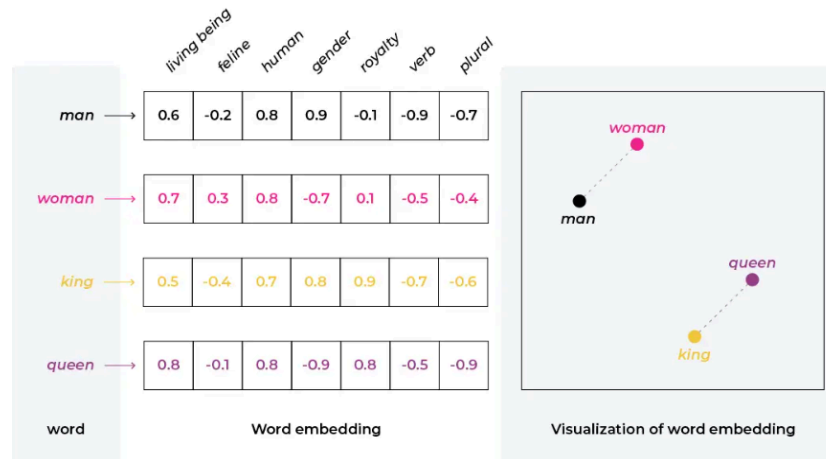


Figure 4: Word Embeddings (Ejiro Onose, Medium)

We used LegalBERT initially for embedding our documents. It is a domain-specific variant of the Bidirectional Encoder Representations from Transformers (BERT) model, trained on vast amounts of legal data - fine-tuned for legal texts. We found that there were interpretability issues where the model did not comprehend our prompts efficiently as it didn't do the retrieval well. We used a quantized version of LegalBERT - a process that potentially compromises a model's performance [14,15].

Dunzhang/Stella_en_1.5B_v5 was selected for this purpose from HuggingFace. It is a high-performance language model developed to generate embeddings, process text, and other NLP tasks, e.g., document understanding, text classification and RAG. Built on top of Alibaba-NLP/gte-large-en-v1.5 and Alibaba-NLP/gte-Qwen2-1.5B-instruct models, it adapted their robustness, lightweightedness and adaptability enabling it to perform better to our prompts. Stella provided better quality and more coherent answers compared to LegalBERT (See Table 1) [16,17].

The selected embedding model was chosen for its balance of performance, efficiency, and suitability for processing legal texts. Key reasons include:

1. High-Dimensional Embeddings (1024 dimensions):
The model generates embeddings in a 1024-dimensional space by default, allowing it to capture fine-grained and nuanced information. This is particularly beneficial when working with complex legal texts that require detailed representation to ensure accuracy in downstream tasks.
2. Proven Performance on METB Leaderboard:
The model's third-place ranking on the METB leaderboard demonstrates its effectiveness and reliability for tasks involving English documents. This ranking provides confidence in its ability to handle intricate and domain-specific text with high quality.
3. Prompting Dexterity: Support for two main prompts - "s2p_query" for sentence-to-passage tasks and "s2s_query" for sentence-to-sentence tasks. This streamlined approach simplifies the usage of prompts for various NLP applications.
4. Diversity:

Supports multiple vector dimensions allowing experimentation between different dimensions to find the optimal balance between performance and model size for specific use cases.

5. Efficiency in Retrieval-Augmented Generation (RAG) Systems:
With 1.5 billion parameters, the model is smaller and faster than other leading models, reducing latency without compromising on embedding quality. This makes it an optimal choice for real-time or near-real-time applications in retrieval-augmented generation setups, where speed and accuracy are critical.

Feature	Dunzhang/Stella_en_1.5B_v5	LegalBERT
Primary Use Case	General-purpose embedding and text processing for English text.	Legal-domain-specific tasks like contract analysis, case law retrieval, and legal QA.
Training Data	General English datasets, optimized for diverse domains.	Legal texts, including statutes, case law, and contracts, focused on legal language nuances.
Model Size	1.5 billion parameters, relatively small for efficient embedding and RAG setups.	Typically smaller than 1.5B, focused on domain-specific tasks, not embedding generalization.
Performance Domain	Broad, excelling in tasks like document understanding, QA, and retrieval.	Legal domain; struggles with general-purpose tasks outside its specialization.
Embedding Dimensions	High-dimensional embeddings (1024 dimensions) for nuanced general semantics.	Domain-specific low-dimensional embeddings (768 dimensions) capturing legal context but may lack generalizability.
Resource Efficiency	Lightweight and efficient, suitable for low-latency applications.	Extremely light weight but requires fine tuning to work well which might be resource intensive.

Jurisdiction Bias	General English, applicable globally.	Potential bias toward specific legal systems (e.g., U.S. or U.K.), limiting utility in other jurisdictions.
Language Support	Optimized for English text; performs well across multiple text types.	Primarily focused on English legal texts, less adaptable to multilingual tasks.
Adaptability	Versatile, performing well in varied applications with minimal tuning.	Requires fine-tuning for specific legal subdomains or jurisdictions.
Interpretability	Standard transformer architecture with typical challenges in explainability.	Similar interpretability issues but more critical for legal applications due to domain needs.
Deployment	Designed for efficient integration into RAG pipelines and scalable use.	More specialized, often requiring domain expertise and annotated legal datasets.
Advantages	<p>Broad applicability across tasks.</p> <p>Computationally efficient.</p> <p>Strong performance on benchmarks like METB.</p> <p>High-quality embeddings for diverse domains.</p>	<p>Tailored for legal language and context.</p> <p>Superior performance in legal-specific tasks.</p> <p>Captures nuances in legal structure and terminology.</p>
Disadvantages	May not capture domain-specific nuances as effectively as specialized models.	<p>Limited to legal tasks.</p> <p>Potential bias toward specific legal systems or subfields.</p>

Table 1: Comparison between Duzhang/Stella_en_1.5B_v5 and LegalBERT

In summary, this model offers a powerful combination of detailed embeddings, strong benchmark performance, and operational efficiency, making it well-suited for tasks involving legal or other complex text corpora. We hypothesize that LegalBERT may have performed better had we had significant computational resources for fine-tuning and had large-scale legal datasets.

Section 8: Vector Database

Vector Databases indexes and stores vector embeddings for fast retrieval and similarity search through CRUD operations, metadata filtering, horizontal scaling and serverless - a task regular, scalar databases fail at due to the complexity and scale of the data (Figure 5). They are good for large-scale search and hybrid queries - combining vectors with structured data.

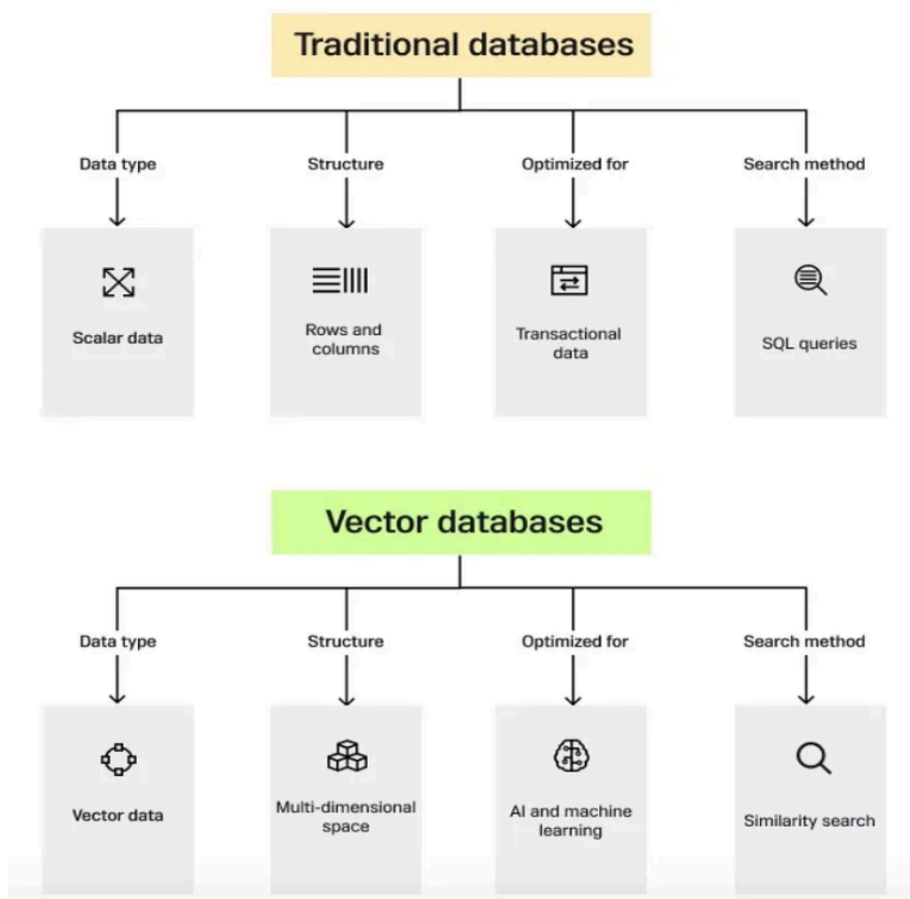


Figure 5: Scalar vs Vector Databases

Vector embeddings are inserted into a vector database with some reference to the original content from which the embedding was created. When a query is generated, the same embedding model used to create embeddings for the query are used to generate a query for the database, which are associated with the original content [18,19,23]. Vector indices are data structures or algorithms specifically designed for nearest neighbour search, focusing on optimizing similarity search solely. As they rely on nearest neighbour search as opposed to the similarity-based nature of vector databases. Vector indices struggle with large datasets and lack the functionality and features offered by a vector database.

Resource constrictions limited our options for vector databases. Among the options available, we narrowed down our choices to Pinecone and ChromaDB. After going through their documentation and online articles, we selected Pinecone as our vector database. The selection was informed by Pinecone's scalability and distributed infrastructure. It is highly optimized for real-time vector search with low latency indexing and querying even for large datasets while ChromaDB works better with smaller scale applications[19,20,21]. Pinecone supports hybrid queries which suited our requirements. The indexing techniques used in Pinecone are superior to those of ChromaDB as it is a fully-managed platform. ChromaDB's self-hosting is too complicated for our level of understanding of these tools, redundant when options like Pinecone are available, and it is not as secure as Pinecone [20,22,23]. Pinecone is easier to use and integrate into RAG as opposed to ChromaDB, enabling us to have a smoother transition for our retrievals.

Section 9: Retrievers

At this stage of the project, we begin our experiments to select the final strategy that could be used for queries of different natures. The queries formulated are:

Generic Query: “ What was court's judgement on the following income tax case:

Case Title: M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others

Case No: C.P.L.A.1920/2022 ”

Specific Query: “ What are the implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205? Use the following case for reference:

Case Title: M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others

Case No: C.P.L.A.1920/2022 ”

Completely Generic Query (no case reference given): “ What are the implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205?

Which cases can you reference for this? ”

The first set of experiments was to check the output of different Retrievers on all 3 queries. Beginning with Similarity Search to capture semantic relationships in legal text, and also to create a baseline for our query-answer results. Then we moved to keyword based search through BM25 because in some instances of legal text, the results depend on the exact matches on the key terms. Then finally we applied a combination of the two using Ensemble.

We evaluated each of these answers based on our own defined Likert scale that is as follows:

Completeness (1-5): How fully the response answers the query.

Relevance (1-5): How well the response aligns with the query's context or requirements.

Accuracy (1-5): How factually correct and precise the response is.

Note(1): Scoring in tables is written as Completeness/Relevance/Accuracy with overall score in parenthesis.

Note(2): The above scoring criteria is implemented throughout this project.

Our evaluations of each of the experiment results can be found in Table 2 (See Appendix [Table 1](#)).

Query	Similarity Search (LLaMa RAG)	BM25 (LLaMa RAG)	Ensemble Retriever (LLaMa RAG)
Generic	3/3/3 (3)	3/4/4 (3.67)	5/5/4 (4.67)
Specific	4/4/4 (4)	5/5/5 (5)	5/5/5 (5)
Completely Generic	1/1/1 (1)	4/4/4 (4)	3/5/5 (4.33)

Table 2: Retrieval Evaluation Comparisons

The observation in the case of an extra experiment with no metadata given was again poor retrieval. This means that our RAG does not retrieve well without metadata inclusion. While in the case of the Completely Generic Query using retrieval with Similarity it was not able to answer the question to state general implications and also reference similar cases! As hypothesized, the Ensemble Retriever worked best for all three queries. Though it did go into slightly long detail in the answers, with our knowledge of the judicial judgements, they were relevant and full of useful facts. For the Completely Generic Query, though the BM25 Retriever worked well also, it referenced one foreign case as well which may deviate from the Pakistani judicial setting, and can be tagged as an irrelevant case. However, Ensemble did correctly reference the case and other SCP cases also. And it is clear that the key to the RAG working is the inclusion and use of Metadata in the corpus. Lastly, took the hyperparameter of k to be 10, to retrieve the top 10 documents for each query to set the context.

Section 10: Generation Improvements

For generation improvements, we followed and experimented with multiple approaches before choosing a final strategy to implement on two different LLMs:

- LLaMa 3.1. 8B Instruct (meta-llama/Meta-Llama-3.1-8B-Instruct)
- Mistral 7B Instruct (mistralai/Mistral-7B-Instruct-v0.3)

After selecting the Specific Query and Ensemble Retriever to run the next experiments, it must be noted that these experiments were done on LLaMa, we began with two approaches for summarization. The first approach was to give context along with the query to generate the summary, and then use that summary along with the context to answer the query while the second approach was to omit the query for summary generation and then repeat the remaining RAG as stated in the first one as in Table 3 (See Appendix [Table 3](#)).

Query	Summary w/ Query (LLaMa RAG)	Summary w/o Query (LLaMa RAG)
Specific	5/5/5 (5)	5/5/5 (5)

Table 3: Summarization Technique Evaluation

Though the summary in both approaches are more detailed than the gold standard, it is still sufficient in terms of utility, for example as a legal scholar. However, the answers obtained for the query using these approaches are almost similar to the summary itself! The first approach gives a slightly more copied version of the summary in the answer while the second approach still states more implications in the answer. This means that giving a summary generated from giving the query could result in a query bias resulting in both outputs to be much similar. Therefore, we choose and move forward with the second approach in our chain of experiments.

The last experiment, and also our final decided approach for our RAG, integrated Long Context Reordering. In this we first retrieve the context via Ensemble, then reorder it. Using this reordered context, we generate the summary without giving it the query. Then using the reordered context and generated summary, the RAG answers the query.

The experimentation concludes here with the best strategy being Ensemble Retriever aided by generation improvements with Long Context Reordering and inclusion of Summary (Without Query Bias) in the context. This strategy is applied to all 3 queries across both LLMs. The evaluation is in Table 4..

Query	RAG (LLaMa)	RAG (Mistral)
Generic	5/5/4 (4.67)	3/4/4 (3.67)
Specific	5/5/5 (5)	4/5/5 (4.67)
Completely Generic	3/5/5 (4.33)	3/4/4 (3.67)

Table 4: RAG Evaluation on LLaMa 8B Instruct & Mistral 7B Instruct

Based on the table it is quite evident that the LLaMa consistently outperforms Mistral in delivering comprehensive, relevant, and accurate responses. It excels in addressing queries thoroughly, maintaining focus on the context, and accurately interpreting legal and procedural details. For instance, in analyzing Section 177 of the Income Tax Ordinance and its relationship to Sections 161 and 205, LLaMa provided detailed explanations, cited case references (CP No. 1920/2022), and clarified legislative intent, showcasing its superior capability for complex queries (Refer to [Table 4](#) in the Appendix). This makes LLaMa the preferred choice for reliable and detailed responses. Moreover, it must be observed that all the Mistral took comparatively more time than LLaMa for the executions.

Section 11: RAG Evaluation

Title	Query Type	Query	RAG	Ground Truth	Scores
Farrukh Raza Sheikh v. The Appellate Tribunal Inland Revenue, Lahore Bench through its Chairman and others [C.P.L.A.1417/2022]	Generic	<p>“ What was court's judgement on the following income tax case:</p> <p>Case Title: Farrukh Raza Sheikh v. The Appellate Tribunal Inland Revenue, Lahore Bench through its Chairman and others</p> <p>Case No: C.P.L.A.1417/2022 ”</p>	<p>Based on the provided context, the court's judgment in the case of Farrukh Raza Sheikh v. The Appellate Tribunal Inland Revenue, Lahore Bench through its Chairman and others (Case No: c.p.l.a.1417/2022) was that Rule 22(1) of the Appellate Tribunal Inland Revenue Rules, 2010, which allows for the dismissal of tax appeals in default, is ultra vires Section 132(2) of the Income Tax Ordinance, 2001. This means that the court held that the Appellate Tribunal Inland Revenue cannot dismiss tax appeals in default, as it would be against the provisions of the Income Tax Ordinance, 2001. The court's decision is based on the jurisprudence that the Appellate Tribunal must decide tax appeals on merits and not dismiss them in default, as established by the case of Chenniappa Mudaliar v. Commr. of Inc.-Tax (1964) 53 ITR 323 and its subsequent upholding by the Supreme Court of India.</p>	<p>In the case of Farrukh Raza Sheikh v. The Appellate Tribunal Inland Revenue, Lahore Bench through its Chairman and others (C.P.L.A. 1417/2022), the Supreme Court of Pakistan delivered a judgment on July 28, 2022. The court addressed the legality of Rule 22(1) of the Appellate Tribunal Inland Revenue Rules, 2010, which allowed the Tribunal to dismiss an appeal in default.</p> <p>The court held that Rule 22(1) is ultra vires (beyond the powers) of Section 132(2) of the Income Tax Ordinance, 2001. The judgment emphasized that the Tribunal is obligated to decide appeals on their merits and cannot dismiss them for default of appearance. The court stated that the Tribunal must afford an opportunity for hearing to the parties involved, and if a party is absent without sufficient cause, the Tribunal may proceed ex-parte but must still decide the appeal based on the available record.</p> <p>As a result, the court declared that the appeal of the petitioner would be deemed pending before the Tribunal and must be decided within three months from the receipt of the judgment. The impugned judgment of the Lahore High Court dated March 3,</p>	4/5/5 (4.67)

				2022, was set aside, and the petition was converted into an appeal and allowed accordingly.	
Pakistan Electronic Media Regulatory Authority, Islamabad & another v. ARY Communications Limited, Karachi & others [C.P.L.A.1716/2022]	Specific	<p>“ What are the constitutional implications of not advertising honorary public positions like the COC slots, as discussed in the following case:</p> <p>Case Title: Pakistan Electronic Media Regulatory Authority, Islamabad & another v. ARY Communications Limited, Karachi & others</p> <p>Case No: C.P.L.A.1716/2022 ”</p>	<p>Based on the context provided, the constitutional implications of not advertising honorary public positions like the COC slots are as follows: 1.**Lack of transparency**: The High Court of Sindh directed that the appointment of the chairperson and members of the COC should be made after advertising the positions. This implies that the court considered advertising to be essential for transparency and accountability in the appointment process. 2. **Potential for favoritism**: If the government is allowed to headhunt and fill these slots without advertising, it may lead to favoritism and nepotism, undermining the integrity of the COC. 3. **Inconsistent with the legislative will**: The Pemra Ordinance 2002 requires that the chairperson and members of the COC must be citizens of eminence. The court is considering how to fulfill this requirement through a transparent process, suggesting that advertising may be necessary to ensure that the most qualified and respected individuals are appointed. 4. **Potential violation of the right to equality**: If the government is allowed</p>	<p>The constitutional implications of not advertising honorary public positions, such as the Council of Complaints (COC) slots within the Pakistan Electronic Media Regulatory Authority (PEMRA), are significant and multifaceted, as discussed in the case of Pakistan Electronic Media Regulatory Authority, Islamabad & another v. ARY Communications Limited, Karachi & others (C.P.L.A.1716/2022).</p> <p>1. Equality and Non-Discrimination: The case emphasizes that the constitutional guarantee of equality and the safeguard against discrimination extend to all appointments to public offices, including honorary positions. The lack of a transparent and competitive selection process could lead to favoritism and undermine the principle of equal opportunity for all citizens, which is a fundamental constitutional right .</p> <p>2. Meritocracy and Transparency: The court argues that even honorary positions should be filled through a transparent process that prioritizes merit. The absence of advertising these positions could result in a selection process that lacks accountability and fails to attract the most qualified candidates. This could</p>	5/5/5 (5)

			<p>to appoint individuals without advertising, it may lead to a situation where only a select few have access to these positions, potentially violating the right to equality enshrined in the Constitution. 5.</p> <p>**Implications for the independence of the COC**: The COC plays an important adjudicatory-cum-recommendatory position in regulating electronic media in the country. If the appointments are not made through a transparent process, it may compromise the independence and impartiality of the COC. In the context of the case, the court is considering the legislative will and the need to find citizens of eminence to sit on the COC, and how to fulfill this requirement through a transparent process. The court's direction to advertise the positions suggests that it is concerned about ensuring transparency, accountability, and the independence of the COC.</p>	<p>diminish public trust in the integrity of the appointments and the effectiveness of the COC , .</p> <p>3. Public Confidence: A transparent selection process is crucial for maintaining public confidence in the regulatory body. If appointments are made without public advertisement, it raises concerns about the legitimacy of the appointees and the potential for partisan intervention or patronage, which could compromise the independence of the COC , .</p> <p>4. Legislative Intent: The court highlights that the PEMRA Ordinance requires that COC members be "citizens of eminence." To fulfill this legislative intent, a transparent call for candidates is necessary to ensure that the best individuals are considered for these important roles. This aligns with the constitutional imperative to ensure that public appointments are made based on merit and not through arbitrary selection , .</p> <p>5. Impact on Governance: The decision underscores that a competitive selection process can enhance governance and the performance of public institutions. By ensuring that appointments are made from a diverse and qualified pool of candidates, the overall standard of public service can be improved, which is essential for effective governance , .</p>	
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Both	Completely Generic	<p>“ Which cases discuss the interplay between procedural transparency, fairness in appointments, and adherence to statutory mandates in public or regulatory bodies? ”</p>	<p>Based on the provided context, the following cases discuss the interplay between procedural transparency, fairness in appointments, and adherence to statutory mandates in public or regulatory bodies: 1. **Case No: c.p.l.a.183-q/2023 (Govt. of Balochistan thr. its Secy. Forest and Wildlife Dept., Quetta & another v. Ghulam Rasool)**: This case discusses the importance of procedural transparency and fairness in appointments. The court held that the drastic action of withdrawing appointments letters and terminating service was carried out without issuing any show cause notice and without affording any opportunity of hearing to the terminated employees,</p>	<p>To know the complete ground truth, we'd have to know the corpus and judgements entirely.</p> <p>But the check-mark point would be for RAG to mention both cases in its answer. If it cites one of the two (which it does), that may also be good enough, but not as excellent a response as citing all of them.</p>	3/5/5 (4.33)

			<p>which is a violation of the principles of natural justice. 2.</p> <p>**Case No: c.p.l.a.1716/2022 (Pakistan Electronic Media Regulatory Authority, Islamabad & another v. Ary Communications Limited, Karachi & others)**: This case emphasizes the importance of transparency, fairness, and non-discrimination in the appointment process. The court held that the highest standards of diligence, transparency, and probity are to be observed so that a</p> <p>qualified, eligible, and most deserving person is selected for a post. 3.</p> <p>**Case No: c.a.52-k/2022 (The Province of Sindh through Chief Secretary & others v. Ghulam Shabbir)**: This case highlights the importance of merit-based selection in the appointment process. The court held that merit should be the sole criteria in the selection process, and favoritism, nepotism, and preferential treatment are inimical to good governance. 4. **Case No: c.p.21/2022 (Imran Ahmad Khan Niazi v. Federation of Pakistan through Secretary, Law and Justice Division, Islamabad and another)**: This case discusses the scope of judicial review in cases of procedural lapses in public or governmental work or functions. The court held that procedural</p>	
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			<p>lapses, unless there is evidence to prove that a holder of public office or any other person acting on his behalf has been conferred or has received any monetary or other material benefit, are not grounds for action. 5.</p> <p>**Case No: c.p.l.a.389/2022 (Collector of Customs, Model Customs Collectorate, Peshawar v. Wasifullah and another)**: This case provides a general overview of the concept of statutory regulatory orders (SROs) and their role in disseminating government regulations through delegated powers under the statutory regime.</p>		
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Table 5: RAG Evaluation Outputs and Scores

Applying the final RAG through LLaMa on new judgements of different and similar themes, the outputs and scores turn out to be satisfactory based on the ground truth. The richness of the RAG output itself is also noteworthy. Therefore, the workflow and strategy employed in this project proves stable and successful in the implementation of a judicial RAG for SCP.

Section 12: Future Work

Metadata Embedding Strategy: Instead of embedding metadata directly within document chunks, we can first combine the metadata into a single string and embed it separately. Then, for each document, we associate the chunk embeddings with their corresponding metadata embedding (i.e., group chunk embeddings under the same metadata embedding). This approach ensures that when a query is processed, it is first matched with the metadata embedding, and then the most relevant document chunks are retrieved based on this initial match. This strategy improves the matching precision by narrowing the query scope to relevant metadata before diving into document content.

Self-Querying and Auto-Retrieval for Metadata: To enhance the search process, a self-querying or auto-retrieval mechanism can be introduced. This mechanism would analyze the user's query and automatically generate and apply relevant metadata tags and filters. If no metadata tags or filters are provided by the user, the system can skip the metadata matching step and directly proceed to matching the query with the document chunk embeddings. This approach enhances flexibility and ensures that the search system can still operate effectively even without explicit metadata input.

Embedding Model with Large Dimension: A potential direction for future work is to use an embedding model with higher dimensions, such as 2048 or more, to better capture the complexities of legal texts. Legal documents often involve specialized terminology and context-dependent details, and a richer representation could improve retrieval accuracy. This approach would enhance the system's ability to handle ambiguous terms and case-specific jargon, leading to more precise and relevant results in legal queries. This will also help address the issue of repeated phrases or terms within legal documents. With a richer representation, the model can better capture the nuances and relationships between repeated phrases, allowing it to differentiate between contexts where the same term is used in different ways.

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Appendix

Table 1: Retrieval Outputs

Query Type	Similarity Search	BM25 Retriever	Ensemble Retriever
Generic	Based on the given context, the court's judgment in the case of M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others (Case No: C.P.L.A.1920/2022) was that the civil petitions were dismissed and leave was refused. The court did not find any illegality or perversity in the impugned judgment of the learned high court. The judgment was delivered by Mr. Justice Muhammad Ali Mazhar on 10-08-2022. The court's decision was based on the fact that the tax authority had afforded ample opportunities of hearing to the petitioner and had complied with the requirements of due process of law before passing the orders under section 161 of the ordinance.	Based on the given context, the court's judgment in the income tax case "m/s islamabad electric supply company limited (iesco) through its finance director islamabad v. the appellate tribunal inland revenue (headquarter), islamabad through its chairman islamabad and others" (Case No: c.p.l.a.1920/2022) was that the learned high court and the learned appellate tribunal inland revenue failed to consider that the order under sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under section 177 of the ordinance. However, the context does not explicitly state the final judgment of the court in the case. It only mentions that the learned high court answered the question of law framed in the tax references in the negative, while upholding the order passed by the learned appellate tribunal inland revenue. Therefore, the final judgment of the court in the case is not explicitly stated in the given context.	Based on the given context, the court's judgment in the income tax case of M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others (Case No: C.P.L.A.1920/2022) was that the Appellate Tribunal Inland Revenue was justified in passing the order under Section 161/205 of the Income Tax Ordinance, 2001, without proceedings under Section 177 of the Ordinance. The court, in its judgment, held that the Appellate Tribunal Inland Revenue had provided sufficient opportunities to the taxpayer (IESCO) to provide relevant documents or details, but they failed to do so. Therefore, the order was passed on the basis of the available record. The court also framed a common question of law in the reference applications, which was: "Whether under the facts and circumstances of the case, was the respondent No.1 justified to hold proceedings and pass order under Section 161/205 without proceedings under Section 177 of the ITO, 2001?" The court answered this question in the negative, upholding the order passed by the Appellate Tribunal Inland Revenue.
Specific	Based on the provided context, section 177 of the income tax ordinance is related to the audit exercise. According to the context,	Based on the given context, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to	According to the context, section 177 of the income tax ordinance is related to the audit exercise, where the

	<p>section 177 of the ordinance provides that the commissioner may call for any record or documents, including books of account maintained under this ordinance, for conducting audit of the income tax affairs of a person. However, the commissioner must record reasons in writing and communicate these reasons to the taxpayer while calling for the record or documents. The context also mentions that section 177 of the ordinance is a precondition for taking any adverse action under sections 161 and 205. However, it is stated that the provisions of section 177 and section 161 are independent and self-governing, and the commissioner may amend or further amend an order of recovery under section 161 without initiating proceedings under section 177. In the context of the case, m/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others (Case No: C.P.L.A.1920/2022), the learned counsel for the petitioner argued that the orders under sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under section 177 of the ordinance. However, the court held that the provisions of section 177 and section 161 are independent and self-governing, and the commissioner may amend or further amend an order of recovery under section 161 without initiating proceedings under section 177. Therefore, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205 are that section 177 is a precondition for taking any adverse action under sections 161 and 205, but the provisions of section 177 and section 161 are</p>	<p>sections 161 and 205 are as follows: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account, for conducting an audit of the income tax affairs of a person. However, this can only be done after recording reasons in writing and communicating those reasons to the taxpayer. Moreover, no record can be called after the expiry of six years from the end of the tax year to which they relate. The learned counsel for the petitioner argued that the orders under sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under section 177 of the ordinance, which is a precondition before taking any adverse action under sections 161 and 205. This implies that section 177 is a prerequisite for the exercise of powers under sections 161 and 205. In other words, the audit exercise under section 177 is a necessary step before the commissioner can initiate proceedings under sections 161 and 205, which relate to default surcharge and non-deduction of withholding tax, respectively. The commissioner must first conduct an audit under section 177 and record reasons in writing before taking any adverse action under sections 161 and 205. Therefore, the implications of section 177 of the income tax ordinance are that it is a necessary precondition for the exercise of powers under sections 161 and 205, and the commissioner must comply with the requirements of section 177 before taking any adverse action under sections 161 and 205.</p>	<p>commissioner may call for any record or documents, including books of account maintained under this ordinance, for conducting audit of the income tax affairs of a person. However, this section is not a precondition for the exercise of powers under sections 161 and 205. The context states that section 177 of the ordinance is "predominantly related to the audit exercise, whereby the commissioner may call for any record or documents including books of account maintained under this ordinance for conducting audit of the income tax affairs of a person but after recording reasons in writing and, as a precondition, the said reasons shall be communicated to the taxpayer while calling for the record or documents including books of accounts of the taxpayer." Furthermore, the context clarifies that the provisions under section 177 of the ordinance do not override or overlap the provisions contained under section 161 of the ordinance. It is mentioned that "both the provisions are, in all fairness, seemingly independent with self-governing corollaries." Therefore, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205 are that section 177 is an independent provision that deals with the audit exercise, and it is not a precondition for the exercise of powers under sections 161 and 205.</p>
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	independent and self-governing, and the commissioner may amend or further amend an order of recovery under section 161 without initiating proceedings under section 177.		
Completely Generic	<p>I don't know as I don't have sufficient context! The query is about the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205. However, the provided context does not mention section 177, 161, or 205. The context only discusses sections 111, 122, and other related provisions of the income tax ordinance. Therefore, I do not have enough information to provide a relevant answer.</p>	<p>Based on the given context, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205 are as follows: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account maintained under this ordinance for conducting audit of the income tax affairs of a person. However, the legislature has not put into effect any precondition under section 177 of the ordinance to embark on an audit exercise first, and then start off proceedings under section 161 of the ordinance. The learned judge, Mr. Justice Muhammad Ali Mazhar, held that the intention of the legislature must be discovered from the words used. If the words used are capable of one construction only, then it would not be open to the courts to adopt any other hypothetical construction. In this case, the words of section 177 of the ordinance are readily understood without any ambiguity, and it is not for the court to raise any doubt as to what they mean. The judge also mentioned that the legislature has not put any precondition under section 177 of the ordinance to embark on an audit exercise first, and then start off proceedings under section 161 of the ordinance. This implies that the audit exercise under section 177 is a separate exercise from the proceedings under section 161. The judge also mentioned that the case of Commissioner Inland Revenue Zone-I, L.T.U vs. MCB Bank Limited (2021 SCMR 1325) is distinguishable from the facts and circumstances of the case in hand. However, this case is not directly relevant to the implications of section 177 of the ordinance regarding the audit</p>	<p>Based on the given context, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205 are as follows: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account maintained under this ordinance for conducting audit of the income tax affairs of a person. However, the proviso to sub-section (1) clarified that no record shall be called after expiry of six years from the end of the tax year to which they relate. The learned counsel for the petitioner in the case of M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others (Case No: c.p.l.a.1920/2022) argued that the order under sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under section 177 of the ordinance, which is a precondition before taking any adverse action under sections 161 and 205. However, the learned judge, Mr. Justice Muhammad Ali Mazhar, held that the legislature has not put into</p>

		<p>exercise and its relation to sections 161 and 205. The relevant case that can be referenced for this is Fawcett Properties v. Buckingham County Council [1961] AC 636, where Lord Denning held that when a statute has some meaning even though it is obscure, or several meanings, even though there is little to choose between them, the court should adopt the construction which makes the statute effectual and operational. Therefore, the implications of section 177 of the income tax ordinance regarding the audit exercise and its relation to sections 161 and 205 are that the audit exercise under section 177 is a separate exercise from the proceedings under section 161, and the legislature has not put any precondition under section 177 to embark on an audit exercise first, and then start off proceedings under section 161.</p>	<p>effect any precondition under section 177 of the ordinance to embark on an audit exercise first, and then start off proceedings under section 161 of the ordinance. He further stated that the intention of the legislature must be discovered from the words used, and if the words used are capable of one construction only, then it would not be open to the courts to adopt any other hypothetical construction. Therefore, it can be inferred that section 177 of the ordinance does not have a direct relation to sections 161 and 205, and the audit exercise under section 177 is not a precondition for taking adverse action under sections 161 and 205. The cases that can be referenced for this are: 1. M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others (Case No: c.p.l.a.1920/2022) 2. Commissioner Inland Revenue, Lahore v. M/s Millat Tractors Limited, Lahore (Case No: c.p.l.a.2447-1/2022)</p>
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Table 2: Ground Truth Summary

Gold Standard Summary of the Case
<p>This is a judgment from the Supreme Court of Pakistan concerning Civil Petitions No. 1920 to 1924 of 2022, filed by the Islamabad Electric Supply Company Limited (IESCO) against a judgment from the Islamabad High Court. The case revolves around tax assessments and the responsibilities of the petitioner as a withholding agent under the Income Tax Ordinance. Key points from the document include:</p> <ol style="list-style-type: none">Background: The Islamabad High Court had ruled against IESCO in several income tax reference cases, leading to the current petitions. The Supreme Court is reviewing these cases based on the arguments presented.Tax Obligations: The document discusses the obligations of tax collectors and withholding agents under the Income Tax Ordinance, particularly Sections 161 and 165. It highlights that IESCO failed to properly deduct and collect taxes as required, leading to tax demands from the Deputy Commissioner (IR).Procedural Issues: The Deputy Commissioner had initiated proceedings against IESCO due to discrepancies in tax filings, including the failure to provide necessary documentation and CPR numbers in withholding statements. Despite multiple opportunities to present evidence, IESCO did not comply, resulting in the finalization of tax demands.Judicial Interpretation: The judgment emphasizes the importance of statutory interpretation, asserting that legislative language should be given effect rather than rendered ineffective. The courts are tasked with ensuring that the law is applied correctly and that taxpayers fulfill their obligations.Outcome: The Supreme Court's judgment is pending, but the document outlines the procedural history and the arguments made by both the petitioner and the respondents, indicating a complex legal battle over tax compliance and administrative procedures. <p>Overall, the document reflects the legal intricacies involved in tax law enforcement and the responsibilities of public companies in Pakistan regarding tax deductions and compliance.</p>

Table 3: Summarization Technique Outputs

Query Type	Summary w/ Query (LLaMa RAG)	Summary w/o Query (LLaMa RAG)
Specific	<p>Based on the provided context and initial summary, the key implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205 are as follows: 1. **Independence of Sections 177, 161, and 205**: Section 177 of the ordinance is related to the audit exercise, where the commissioner may call for any record or documents for conducting audit of the income tax affairs of a person. However, the audit exercise under Section 177 is independent of the provisions contained under Section 161 of the ordinance. 2. **No Precondition for Section 161**: The audit exercise under Section 177 is not a precondition for the commissioner to initiate proceedings under Section 161. The commissioner may amend or further amend an order of recovery under Section 161 without first conducting an audit under Section 177. 3. **Different Premise for Section 161**: Section 161 of the ordinance has a different premise than section 177. The commissioner may amend or further amend an order of recovery under Section 161 if he considers that the order is erroneous in so far as it is prejudicial to the interest of revenue. 4. **No Overlap between Sections 177 and 161**: The provisions contained under Section 177 of the ordinance do not override or overlap the provisions contained under Section 161 of the ordinance. Both sections are seemingly independent with self-governing corollaries. 5. **Relation to Section 205**: Section 205 of the ordinance is related to default surcharge, which is a consequence of failing to collect tax as required or failing to pay an amount of tax collected or deducted as required under Section 160. The default surcharge under Section 205 is not contingent upon the compliance of pre-audit requirements mentioned under Section 177. In summary, Section 177 of the Income Tax Ordinance is related to the audit exercise, but it is independent of the provisions contained under Sections 161 and 205. The commissioner may initiate proceedings under Section 161 without first conducting an audit under Section 177, and the default surcharge under Section 205 is not contingent upon the compliance of pre-audit requirements mentioned under Section 177.</p>	<p>Based on the provided context and summary, the key implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205 are as follows: 1. **Section 177 is related to the audit exercise**: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account, for conducting an audit of the income tax affairs of a person. 2. **Precondition for audit**: The audit under Section 177 requires the commissioner to record reasons in writing and communicate them to the taxpayer while calling for the record or documents. 3. **Independence of Sections 177, 161, and 205**: The provisions of Section 177 do not override or overlap the provisions of Sections 161 and 205. Both provisions are independent and have self-governing corollaries. 4. **No requirement for Section 177 compliance for Section 161 and 205**: The course of action and benchmark enumerated under Section 161 of the ordinance is not contingent upon the compliance of pre-audit requirements mentioned under Section 177. 5. **Section 177 does not apply to the invocation of machinery under Section 161**: The learned high court in the case of M/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others, held that the invocation of the machinery provided under Section 161 is not dependent on the compliance of Section 177. 6. **Section 177 does not override Section 161 and 205**: The provisions of Section 177 do not override the provisions of Sections 161 and 205. Both provisions are independent and have self-governing corollaries. 7. **Section 177 is not a precondition for Section 161 and 205**: The learned high court held that the order under Sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under Section 177 of the ordinance, but this was not the case in the M/s Islamabad Electric Supply Company Limited (IESCO) case. 8. **Section 177 is related to the audit exercise, not the invocation of machinery under Section 161**: The learned high court held that the invocation of the machinery provided under Section 161 is not dependent on the compliance of Section 177, and that Section 177 is related to the audit exercise, not the invocation of machinery under Section 161.</p>

[Table 4:](#) RAG Best Strategy on LLaMa 8B Instruct & Mistral 7B Instruct

Query Type	RAG (LLaMa)	RAG (Mistral)
Generic	<p>Based on the context provided, the court's judgment in the income tax case "m/s Islamabad Electric Supply Company Limited (IESCO) through its Finance Director Islamabad v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its Chairman Islamabad and others" (Case No: c.p.l.a.1920/2022) was that the Appellate Tribunal Inland Revenue and the High Court upheld the orders passed by the lower forums, holding that the petitioner (IESCO) was afforded sufficient opportunities to provide the required information but failed to do so. The court also framed a common question of law, which was whether the respondent was justified in holding proceedings and passing orders under Section 161/205 without proceedings under Section 177 of the Income Tax Ordinance 2001. However, the court did not provide a clear answer to this question in the context provided. It is worth noting that the petitioner argued that the lower forums failed to consider the requirement of initiating proceedings under Section 177 of the Income Tax Ordinance 2001 before passing orders under Sections 161 and 205, and that the orders were based on assumptions and guesswork. However, the court ultimately upheld the orders passed by the lower forums.</p>	<p>The court's judgment on the income tax case titled "m/s Islamabad Electric Supply Company Limited (IESCO) through its finance director Islamabad v. the Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its chairman Islamabad and others" (case no: c.p.l.a.1920/2022) was not provided in the context. However, it is mentioned that the case revolves around the question of law: whether under the facts and circumstances of the case, the respondent no.1 was justified to hold proceedings and pass orders under section 161/205 without proceedings under section 177 of the Income Tax Ordinance 2001. The court framed a common question of law in the reference applications to resolve the difference of opinion on this matter.</p>
Specific	<p>Based on the context provided, the implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205 are as follows: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account maintained under this ordinance for conducting audit of the income tax affairs of a person. However, this exercise of powers has nothing to do with the general exercise of powers under Sections 161 and 205. In other words, the audit exercise under Section 177 is a separate and independent provision that does not override or overlap the provisions contained under Sections 161 and 205. The commissioner may amend an order of recovery under Section 161 without prior audit under Section 177. Furthermore, Section 205 of the ordinance is related to default surcharge, which is a separate provision that does not</p>	<p>Section 177 of the Income Tax Ordinance 2001 is primarily related to the audit exercise, whereby the commissioner may call for any record or documents, including books of account, for conducting an audit of the income tax affairs of a person. However, the court in the case of m/s Islamabad Electric Supply Company Limited (IESCO) v. the Appellate Tribunal Inland Revenue (Headquarter), Islamabad, held that the course of action and benchmark enumerated under section 161 of the ordinance is not contingent upon the compliance of pre-audit requirements mentioned under section 177. This means that sections 161 and 177 are independent provisions with self-governing corollaries, and the former does not require the latter for its execution. Therefore, the implications of section 177 regarding the relation to sections 161 and 205 are that they are separate provisions, and the compliance of section 177 is not a precondition for the execution of sections 161 and 205.</p>

	<p>require compliance with Section 177. The default surcharge is imposed on a person who fails to collect tax as required or fails to pay an amount of tax collected or deducted as required under Section 160. In the case of M/s Islamabad Electric Supply Company Limited (IESCO) v. The Appellate Tribunal Inland Revenue Headquarter), Islamabad through its Chairman Islamabad and others (Case No: c.p.l.a.1920/2022), the learned high court held that Section 177 has no bearing on the exercise of powers under Section 161, and that the commissioner may amend an order of recovery under Section 161 without prior audit under Section 177.</p>	
Completely Generic	<p>Based on the context provided, the implications of Section 177 of the Income Tax Ordinance regarding the audit exercise and its relation to Sections 161 and 205 are as follows: Section 177 of the ordinance is predominantly related to the audit exercise, where the commissioner may call for any record or documents, including books of account maintained under this ordinance for conducting an audit of the income tax affairs of a person. However, the proviso to sub-section (1) clarified that no record shall be called after expiry of six years from the end of the tax year to which they relate. The learned counsel for the petitioner argued that the orders under Sections 161 and 205 of the ordinance cannot be passed without initiating proceedings under Section 177 of the ordinance, which is a precondition before taking any adverse action under Sections 161 and 205. However, the court in the case of CP No. 1920/2022 (Islamabad Electric Supply Company Limited vs. The Appellate Tribunal Inland Revenue) held that the legislature has not put into effect any precondition under Section 177 of the ordinance to embark on an audit exercise first, and then start off proceedings under Section 161 of the ordinance. The court further stated that the intention of the legislature must be discovered from the words used, and if the words used are capable of one construction only, then it would not be open to the courts to adopt any other hypothetical construction. Therefore, the court concluded that the action under Sections 161 and 205 of the ordinance can be initiated without complying with the prerequisites of Section 177 of the ordinance. The cases that can be referenced for this are: * CP No. 1920/2022 (Islamabad Electric Supply Company Limited vs. The Appellate Tribunal Inland Revenue)</p>	<p>Section 177 of the income tax ordinance does not put into effect any precondition for embarking on an audit exercise before starting proceedings under section 161 or 205. The cases that can be referenced for this are M/s Islamabad Electric Supply Company Limited (IESCO) v. The Appellate Tribunal Inland Revenue (Headquarter), Islamabad through its chairman, Islamabad and others. In this case, it was held that the legislature did not require any precondition under section 177 of the ordinance to embark on an audit exercise first, and then start off proceedings under section 161 or 205.</p>