**Data Collection & Processing:**

**Source & Scraping:**

* Q&A from Turkish medical website featuring publicly accessible Q&A sections.
* Prioritize ethical data collection: carefully review and adhere to each website's robots.txt file and terms of service. Implement polite scraping practices (e.g., appropriate request rates, identify your scraper).
* Aim for speiaclty diversity aiming to extract as much QA as possible

**Data Schema (JSON format recommended):**

**Core Q&A Data** Format:

{

topic : “ Endokrinoloji ve Metabolizma Hastalıkları”,

title : “sadsada”

question : “sdasa”,

answer : “”

doctorID:

}

**Doctor Information**: {

doctorID: “”; //UID generated

Name : “” // only name,surname no title

Title: “" // doç prof uzman vs…all standard

Specialty : “ Tiroid Bezi Hastalıkları ve Teşhisi, Şeker Hastalığı (diyabet), Obezite”,

"ClinicName": "", // Name of the clinic or hospital

"ClinicAddress": {

"Street": "",

"City": "",

"Post Code": "",

}

About: {}

Mezun olduğu okul vs….

Average review points

}

**Data Processing & Storage:**

* Clean the raw scraped text: remove HTML tags, unnecessary special characters, and normalize text where appropriate.
* Structure the collected data according to your defined schema and store it systematically (e.g., a collection of JSON files or a NoSQL database).

**Literature Survey:**

**Key Focus Areas:**

* Recent advancements in Large Language Models (LLMs) applied to the medical domain (prioritize papers from 2023 onwards).
* Domain-specific fine-tuning techniques for LLMs, particularly for question-answering tasks.
* Existing Turkish NLP resources, medical QA datasets, and relevant benchmarks (if any).
* Evaluation methodologies for medical QA systems.
* Survey papers on medical LLMs and QA to identify foundational models we can use and state-of-the-art approaches.

**Sources:** Utilize academic search engines like Google Scholar, Semantic Scholar, and databases such as PubMed, IEEE Xplore, and ACM Digital Library.

**Initial Experimentation:**

**Model Selection & Setup:**

* Identify and select 1-2 pre-trained LLMs for initial exploration. Consider both API-accessible models (e.g., from OpenAI, Google) and open-source models (e.g., from Hugging Face Hub) that support Turkish or are multilingual.
* Familiarize yourself with the tools required to interact with these models (e.g., Python libraries like transformers from Hugging Face, openai SDK, PyTorch).

**Initial Experiments**

* Prepare a small, cleaned, and processed subset of your collected Turkish medical Q&A data.
* Perform initial QA tests with the selected LLMs:
  + Evaluate zero-shot and/or few-shot prompting capabilities.
* Qualitative assessment of answer relevance, coherence, and factual correctness (by manual review for a small set), or basic quantitative metrics like ROUGE/BLEU