

Conclusion

Gastritis in young adults stems from a convergence of poor dietary choices, stressful lifestyles, and erratic eating schedules. High intake of irritant foods, coupled with stress and smoking, significantly heightens risk, while irregular meal timing compounds mucosal stress. Preventive measures should focus on dietary moderation, stress management, and structured eating habits to curb this trend.

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INTELLIGENT SYSTEM FOR PREPARING FOREIGN STUDENTS IN POST GRADUATE EXAMINATIONS IN SURGERY IN INDIA

Introduction

For foreign students, the primary outcome of obtaining medical education abroad is passing examinations to validate their medical degrees, allowing them to practice in their home countries. In India, this examination is called the FMGE (Foreign Medical Graduates Examination) and is conducted by the National Board of Examinations in Medical Sciences (NBE) twice a year. The examination consists of 300 multiple-choice questions covering basic and clinical disciplines [1].

Currently, artificial intelligence (AI) can be used to create personalized educational systems, which is particularly relevant for exam preparation [2].

Goal

The primary goal is to develop an intelligent system to optimally prepare foreign medical students for surgery examinations required for diploma validation in India.

Material and methods of research

Textbooks on surgery used for preparation of postgraduate examinations in India:

FMGE Solutions [3];

Sabiston Textbook of Surgery E-Book;

Schwartz's Principles of Surgery;

100 cases of surgery;

Educational materials of the Department of Surgical Diseases No. 3 of the Gomel State Medical University.

We used:

LM Studio – a tool that allows you to work with various AI models;

DeepSeek R1 – a machine learning model for natural language processing (NLP) that can be used for text analysis and generation [4];

AnythingLLM – a platform for creating chatbots and intelligent assistants based on NLP [5];

Local server technology – for deploying the system and ensuring its operation in a local network without Internet access;

Integration of technologies of large language models, digital twins and chatbots.

Integration with AnythingLLM was carried out by installing and configuring the AnythingLLM platform on a local server. Then, the RAG model was connected to AnythingLLM to ensure intelligent interaction with users. The user interface for interacting with the system via AnythingLLM at this stage is software.

The results of the research and their discussion

Using LM Studio, we uploaded the trained DeepSeek R1 Distill Llama 8B network to the local server (Figure 1).



Figure 1 – Screenshot of uploaded DeepSeek R1 Distill Llama 8B

We linked LM Studio with AnythingLLM via API. Figure 2 shows the desktop of the created system based on AnythingLLM.

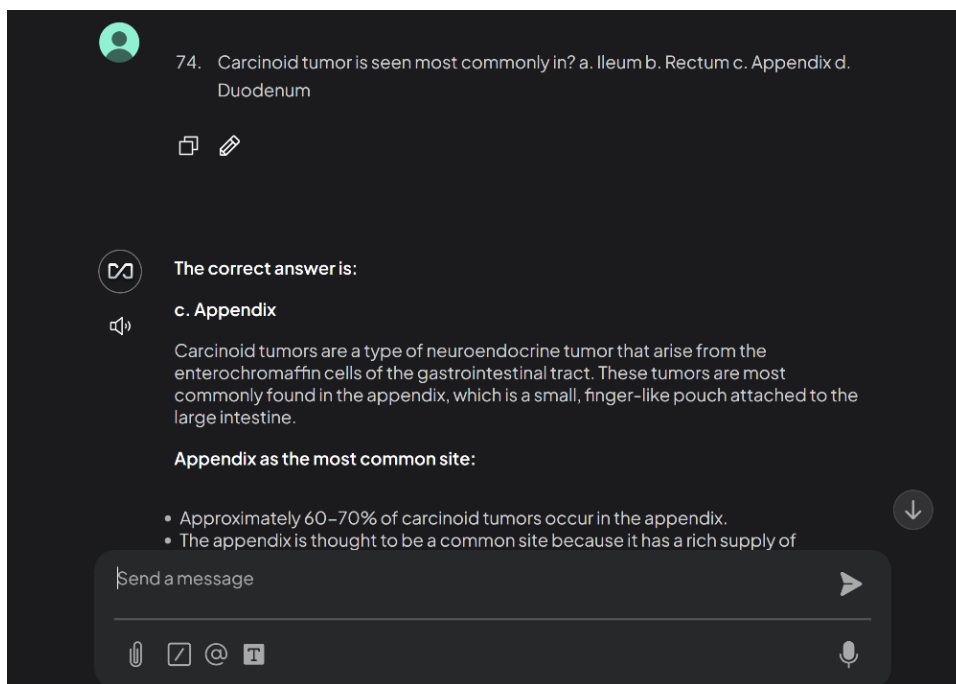


Figure 2 – An example of our System working on the topic of Carcinoid tumor

Developing a system using AnythingLLM chatbot to answer multiple-choice questions from FMGE Solutions has proven highly effective for processing queries and generating accurate answers. The system, running on a local server, employs the DeepSeek model and preloaded textbooks and questionnaires.

Our system successfully processes questions copied from multiple-choice tests. AnythingLLM chatbot analyzes the question, extracts relevant information from pre-loaded textbooks and questionnaires, and generates an accurate answer. DeepSeek model provides high accuracy of natural language processing and response generation. Textbooks on surgery and questionnaires loaded into the system are used as a source of knowledge to answer questions.

Conclusion

Our intelligent system for preparing students from India for postgraduate examinations in surgery can improve their education. These technologies improve personalized learning and can improve the efficiency of students preparing for postgraduate examinations in India.

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