

**CASE STUDY - Generative AI Engineering Profile**

**Title**: To create conversational AI system for medical professionals to classify conditions of the patients accurately

**Technology stack to be used**: Any LLM, LangChain, API end point, (any cloud-based accounts)

**Description**:

Medical abstracts describe the current conditions of a patient. Doctors routinely scan dozens or hundreds of abstracts each day as they do their rounds in a hospital and must quickly pick up on the salient information pointing to the patient’s malady. You are trying to design assistive technology that can identify, with high precision, the class of problems described in the abstract.

In the given dataset, abstracts from 5 different conditions (consider these as classes) have been included:

1. digestive system diseases
2. cardiovascular diseases
3. neoplasms
4. nervous system diseases
5. general pathological conditions

**Data files are hosted at -** <https://github.com/EvolentGenAIteam/GenAIData>

Training data has 2 columns first is class/condition and second is medical text.

Testing data will have free clinical text for which your chat-bot should be able to determine which condition the text belongs to.

(assume each paragraph is clinical text from different patient)

**LLMs Pipeline Design:**

1. **Use train data to create conversational chat-bot platform with the help of any LLM that can classify conditions of the patients. (Your LLM should consider this training data before answering the questions)**
2. **Use test data to predict what should be ‘classification’ categories of the condition**
3. **Create API end point to demonstrate the results. (swagger/azure functions etc.)**
4. **Add docker file which can be used for testing the API at Evolent environment.**

Be creative, original and use novel methods to create LLM applications. Good Luck!