intel

oneAPI

Gen AI HACKATHON

- An LLM Challenge

Team Name: Legalysis

Problem Statement: Enhanced Legal Practice Platform

Team Size: 3

Team Members: Bhuvanesh Cheerla, Hari Tummuri, Kodeeswaran C

H2S HACK2SKILL

Problem Statement

1

Legal professionals face increasing pressure to handle complex cases and provide accurate legal advice in a timely manner.

Legal professionals often spend a significant amount of time on research and analysis, taking away from other important aspects of their work.

4

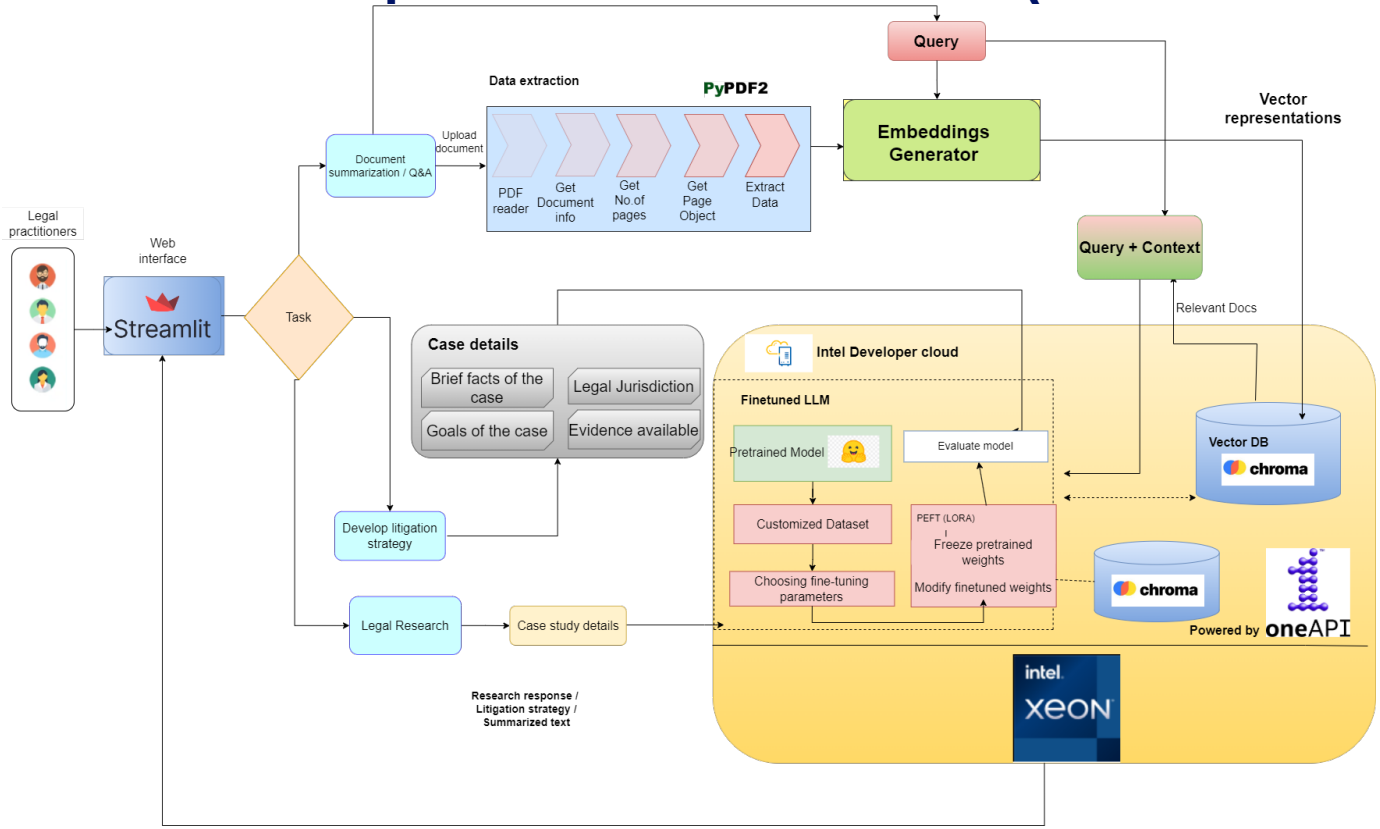
2

The sheer volume of legal information available can make it difficult to efficiently extract relevant information.

Efficient tools for managing legal documentation, providing document summarization and litigation strategies can reduce errors and delays, improve client satisfaction, and enhance the productivity of legal professionals.

3

Architecture – Impact of oneAPI AI Toolkit (How oneAPI helped you?)



Core components of oneAPI AI Toolkit & IDC used in the project

The Intel Developer Cloud played a pivotal role as a platform for the fine-tuning process of our 7B LLM (Large Language Model). By leveraging its capabilities, we were able to effectively optimize and enhance our language model, capitalizing on the abundant cloud-based resources and scalability it provides. This strategic utilization of the Intel Developer Cloud enabled us to achieve efficient fine-tuning and optimization of our language model.

The enhancement of our models was accomplished through the application of Intel-optimized PyTorch. This guaranteed that our deep learning models were meticulously fine-tuned for precision and also optimized to yield superior performance fully capitalizing on the hardware capabilities offered by Intel.

We were able to host the models in the Intel developer cloud with the scalability and efficiency.
The Intel distribution of Modin library helped us to load the datasets more efficiently and made processing of them much easier.

Demo Video/Live Demo Link
(Please elaborate oneAPI AI Toolkit & its Libraries usage and IDC)

Video Link: https://drive.google.com/drive/folders/1c3iEjmGdZgkF5c00i9i8VzFphx_6o6Lz?usp=sharing

GitHub Link (Codes should be public and available after hackathon also)

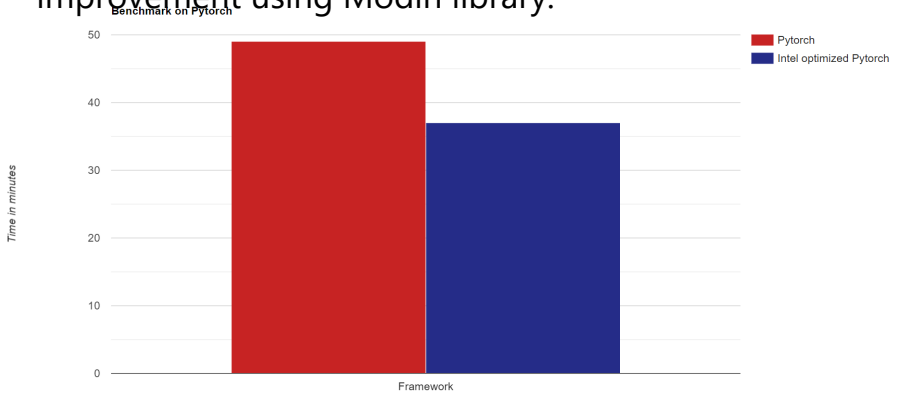
GitHub Link: https://github.com/hari-tummuri/oneAPI-GenAI-Hackathon-2023

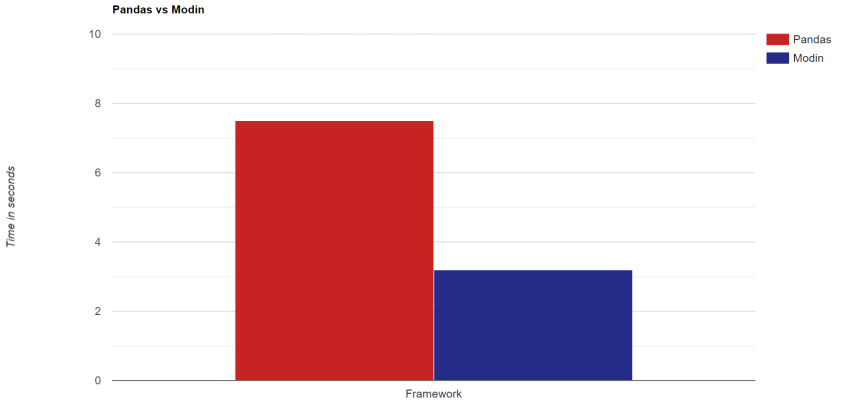
Results Summary (focus on unique aspects of oneAPI AI Toolkit & its Libraries + IDC that you have used)

The toolkit facilitates optimizations in low-precision, thereby improving the performance of your models while taking into account aspects such as model size and memory usage.

We are able to see a significant improvement of performance by using intel distribution modin & intel optimized Pytorch.

We were able see almost 20% performance improvement using intel optimized Pytorch and 60% improvement using Modin library.





oneAPI

Gen AI HACKATHON

- An LLM Challenge

THANK YOU