

Hackathon: Gen AI Solutions for BFSI

Introduction:

The Banking, Financial Services, and Insurance (BFSI) sector is rapidly evolving, and technology plays a pivotal role in shaping its future. Generative Artificial Intelligence, specifically Large Language Models (LLMs), offers a unique opportunity to revolutionise various aspects of BFSI operations. In this hackathon, participants are challenged to leverage open LLM models and address real-world problems in the BFSI domain.

Problem Statement: You will develop a solution to predict sentiment for financial news headlines using natural language processing and Generative AI techniques.

Data:

Training data: train.xlsx file with columns [News Headline, Sentiment]

Primary Task: Train a model on the provided training data to accurately classify sentiment of headlines as positive, negative or neutral.

Bonus Tasks: Using LLM and training data, try and answer the following questions,

1. Find the lowest historical share price for Nokia on days when the headlines had negative sentiment.
2. Determine what field Nokia competes with Google in.

Hints:

- You can filter the data by organization names and then use LLM to generate the answers.
- You can use Google's Gemini LLM for free. Here's a tutorial to get you started - https://ai.google.dev/tutorials/python_quickstart
- You can create the API key using the instructions on this site - <https://makersuite.google.com/app/apikey>

Requirements:

- Participants can use any open LLM models such as GPT, BERT, or others.
- Participants are encouraged to fine-tune the models for better performance on BFSI-specific tasks.
- Participants will be asked to generate sentiments for some tweets and share the predictions. Also, they need to share the bonus tasks answers if they have them.

Evaluation Criteria:

Scoring formula = $Accuracy * 0.8 + Bonus Task 1 Score + Bonus Task 2 Score$

Where,

- *Accuracy* – This score will be computed using the predictions generated by the participants on the test tweets
- *Bonus Task 1 Score* – 0.1 if you were able to answer correctly otherwise 0

- Bonus Task 2 Score – 0.1 if you were able to answer correctly otherwise 0