MOVIE VIBES PREDICTOR:

Aim: The aim of this project is to determine "What Are the Vibes?" of a newly released movie – essentially, whether it's worth watching. Using sentiment analysis, the code predicts if the general reception is positive or negative based on available reviews. This was my final exercise in an online Generative AI course (Codédex) to practice text processing and machine learning.

How It Works:

1. **Data Gathering:** Synthetic movie reviews were generated using ChatGPT.
2. **Labeling:** Each review is labeled as positive or negative.
3. **Text Vectorization:** Reviews are converted into numerical data using CountVectorizer.
4. **Model Training:** A Naive Bayes classifier (MultinomialNB) is trained on the dataset.
5. **Prediction & Evaluation:** The model predicts sentiments for test reviews, and accuracy is calculated.
6. **Decision Output:** Based on model accuracy, a recommendation is printed: "Good vibes. Book the ticket!" or "Needs more work!"

Limitations:

- The dataset is small and synthetic, so predictions are not highly reliable.
- Only simple sentiment analysis is performed. Context, sarcasm, or mixed reviews are not fully handled.
- The model does not learn continuously from real reviews. It requires retraining with updated data.
- No web or API integration - results are limited to local execution.

Future Improvements:

- Integrate real-time review scraping via APIs (e.g., IMDb, Rotten Tomatoes).
- Expand the dataset with more diverse reviews and balanced labels.
- Experiment with more advanced NLP models like transformers or generative AI techniques for richer analysis.
- Build a simple web app or API for real-time movie recommendations.