LYRICS SENTIMENT ANALYSIS

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"Unlocking Sentiments, Unveiling Melodies: Your Ultimate Lyrics Sentiment Analysis App, Powered by Information Retrieval"

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CONTENT

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  - Comparison between Stanford, Naive Bayes in Java & Naive Bayes in Python
- Results
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IMPLEMENTATION

Stanford Implementation	Naive Bayes	Naive Bayes
✓ Sentiment Analysis is more sophisticated ✓ Improved precision and effectiveness ✓ Uses Java NLP dependency for a better sentiment analysis ✓ Sentiment score assigned to each song in order to rank them ✓ Output saved in a text file ✓ Combined sentiment prediction with relevance score ✓ Used NDCG for evaluation of improved version	✓ Indexing and stemming using Porter Stemmer, which is based on Lucene ✓ Eliminating stopwords ✓ Accuracy of model carefully analysed	✓ Training set preprocessing ✓ Multinomial Naive Bayes classifier ✓ Sentiment predictions saved in a text file

RESULTS

Stanford	Naive Bayes	Naive Bayes
❖ NDCG = 1.0 ❖ The results generated by Stanford are the best	❖ NDCG = 1.0 ❖ The results generated by NB in Java are better	❖ NDCG = 0.99999166326515 ❖ The results generated by NB in Python are almost good

WEB APP

🎵 **Lyrics Sentiment Analyzer** 🎵

Dancing Symphony
Like a lighthouse in the storm, your love is my guide
Our love's a melody that echoes through the night
Our story is written in the stars above
Just like the stars belong to the night
Every heartbeat calls your name in a whisper
In your eyes, I find my tomorrow
Hand in hand, heart to heart, our souls take flight
In the symphony of life, your heart's my favorite note

Analyze Sentiment

Sentiment:

POSITIVE

🎵 **Lyrics Sentiment Analyzer** 🎵

Enter lyrics here...

Analyze Sentiment

While the algorithm successfully generated the songs' sentiments, it may not achieve 100% accuracy when considering how individuals perceive song lyrics, as *emotions are human* and each person experiences and interprets musical pieces uniquely.

THANK YOU!