According to my understanding

- Goal: Create a hybrid recommendation system for audio-based Quran content using a weighted hybrid approach, combining collaborative filtering (Neural Collaborative Filtering) and content-based filtering (LSTM).

- Components:

- Collaborative Filtering: Utilize Neural Collaborative Filtering (NCF) as described in the attached paper and GitHub repository.

- Content-Based Filtering: Implement an LSTM model to analyze audio content characteristics.

- Hybrid Approach:

Weighted Hybrid: Combine recommendations from collaborative filtering and content-based filtering using weighted averages or another weighted combination method.

Not an Ensemble Method: The hybrid system should not be an ensemble method, but rather a combined approach where each method contributes to the final recommendation with a specified weight.

Implementation:

Use Django for the website development.

Integrate the recommendation system into the Django website.

Troubleshoot errors in the LSTM method code provided.

- Performance Goal: Aim for the hybrid recommendation system to achieve results as good as or better than the Neural Collaborative Filtering method.

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- Considerations: Ensure compatibility between the recommendation system and the Quran audio dataset.

Test the system extensively to validate the recommendation quality.

Monitor and adjust weights for optimal performance