Project Proposal: Improving Album of the Year Search Algorithm

Project Type

- Research Project aimed at solving a real-world problem by developing and integrating an enhanced search algorithm for a popular music review site.

Problem Statement

- The current search algorithm on Album of the Year is limited to album titles, ignoring crucial factors such as popularity, ratings weightage, artist names, search/click counts, and critic scores. This results in incomplete, inefficient, and often inaccurate search experiences for users.

Project Goal and Motivation

- The goal is to improve the search experience, making results more relevant and user-centric by considering a broader set of attributes.

- Motivation stems from the team's frequent frustration with poor search results, driving a desire to enhance usability and efficiency for all users.

Proposed Method

- Analyze user behavior and search intent by mining common queries.

- Aggregate and assign weights to additional attributes such as ratings, popularity, artist relevance, and click metrics.

- Design a scoring formula that ranks albums based on a composite of above factors, rather than title alone.

- Prototype the new algorithm and benchmark it against the current method using test queries.

Testing Plan

- Unit tests: Validate the algorithm's logic against synthetic data scenarios.

- User test: Collect feedback from a sample set of Album of the Year users, measuring satisfaction and accuracy of results.

- A/B testing: Compare the enhanced algorithm against the existing one with real user queries and actions.

Schedule/Milestones

Week	Task
1	Research and Requirements Gathering
2	Attribute Selection & Algorithm Design

3	Implementation
4	Internal Testing
5	User Testing & Feedback Collection
6	Algorithm Redesign based on Feedback
7	Internal Testing
8	Final Optimizations & Documentation

Team Members' Contributions

- Kartavya: Leads algorithm design, logic, and technical implementation
- Kanav: Designs and conducts user testing, gathers and analyzes feedback
- Saarthak: Handles project documentation, milestone tracking, and presentation preparation

Each member will also participate in group research, code reviews, and final optimization.