**Project Roadmap: Music Recommendation Website Using KNN (Without AI Tools)**

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**Project Roadmap**

**Phase 1: Planning & Dataset Collection (1 Week)**

* Define what features you will use for recommendation (e.g., genre, tempo(speed), instruments, era, etc.).
* Find or create a dataset with song features, genre, mood, and popularity.
* Structure the data into a CSV or SQL database.

**Phase 2: Implementing KNN (1 Week)**

* Write a basic KNN function using Python (without AI libraries).
* Implement distance calculation (Euclidean, Manhattan, etc.).
* Test the algorithm with sample user inputs.

**Phase 3: Developing the Frontend (2 Weeks)**

* Design the questionnaire using HTML, CSS, and JavaScript.
* Make sure the quiz is engaging and interactive.
* Create the result page displaying recommendations with embedded YouTube & Spotify links.

**Phase 4: Backend & Database Integration (2 Weeks)**

* Store user responses in a database.
* Use Flask or Django to process user input and pass it to the KNN algorithm.
* Retrieve and display results dynamically.

**Phase 5: Testing & Refinements (1 Week)**

* Test different user responses to see if recommendations make sense.
* Adjust weightings in KNN if needed.
* Improve UI/UX based on feedback.

**Phase 6: Deployment & Optimization (1 Week)**

* Host the website (e.g., on Vercel, Netlify, or Heroku).
* Ensure the site works on different screen sizes.
* Optimize performance for fast load times.

**Tech Stack**

* **Frontend**: HTML, CSS, JavaScript
* **Backend**: Flask or Django
* **Database**: SQLite or PostgreSQL
* **Logic**: Pure Python (KNN Implementation)
* **APIs**: YouTube & Spotify Embed Links

1. Name, age, personality, genre, tempo, era, instrument, mood, popularity, features, questions .