Personalized Student Recommendations

Develop a Python-based solution to analyze quiz performance and provide students with personalized recommendations to improve their preparation.

App Link: NEET Testline - on Google Play

Data Overview:

You will work with two datasets:

1. **Current Quiz Data**
   Details of a user's latest quiz submission, including questions, topics, and responses, etc. Quiz Endpoint, Quiz Submission Data.
2. **Historical Quiz Data**
   Performance data from the last 5 quizzes for each user, including scores and response map (Key:Question Id, Value: Selected option id). - API Endpoint.

Task:

1. **Analyze the Data:**
   - Explore the schema and identify patterns in student performance by topics, difficulty levels, and response accuracy.
2. **Generate Insights:**
   - Highlight weak areas, improvement trends, and performance gaps for a given user.
3. **Create Recommendations:**
   - Propose actionable steps for the user to improve, such as suggested topics, question types, or difficulty levels to focus on.

Bonus Points:

- Analyze and define the **student persona** based on patterns in the data. Highlight specific strengths and weaknesses with creative labels or insights.
- Probabilistic model that predicts the student's NEET rank based on their quiz performance and previous year NEET exam results

Submission Guidelines:

Submit the source code via a GitHub link, including:

- A README with setup instructions, project overview, and approach description.
- Screenshots of key visualizations and insights summary.
- A 2-5 minute video demonstrating the script/API with sample inputs, output, and a brief explanation of the logic and recommendations.

We're eager to see your AI-driven approach and problem-solving skills in action. Best of luck!