

## **Internship Assignment: AI/ML Task for NLT**

### **Objective:**

Design a basic AI/ML-based solution to improve mentorship or engagement for law aspirants preparing for CLAT and other entrance exams.

**Choose** one of the following tasks (or complete both for bonus consideration):

### **Task 1: Personalized Mentor Recommendation System**

#### **Problem Statement:**

Design a simple ML model to recommend mentors (CLAT toppers) to aspirants based on user profiles.

#### **Deliverables:**

- A brief explanation of the approach.
- A Jupyter notebook or Python script that:
  - Loads mock data (or real anonymized data, if available).
  - Processes features like aspirant's preferred subjects, target colleges, current preparation level, and learning style.
  - Uses basic classification/clustering/recommendation techniques (e.g., KNN, content-based filtering, or cosine similarity).
  - Outputs top 3 mentor recommendations.

**Bonus:** Include a short analysis on how the system can improve over time with user feedback.

### **Task 2: Chatbot for Legal Exam Queries**

#### **Problem Statement:**

Build a simple rule-based or NLP-powered chatbot prototype that answers CLAT-related queries.

Sample Use Cases:

- "What is the syllabus for CLAT 2025?"
- "How many questions are there in the English section?"
- "Give me last year's cut-off for NLSIU Bangalore."

#### **Deliverables:**

- A Python notebook or simple Flask/Streamlit app that:
  - Accepts a query.

- Searches a small provided knowledge base (or open-source CLAT syllabus and FAQs).
- Responds with relevant answers using either keyword search or basic NLP (e.g., spaCy, NLTK, or Transformers if applicable).
- Brief explanation of architecture.

**Bonus:** Suggest how this can be scaled to a GPT-based model fine-tuned on NLTl's content.

**Submission Format:**

- GitHub repo or zipped folder with:
- Code (.ipynb or .py)
- README with setup instructions and summary of your approach
- Optional: Video walkthrough (max 3 mins)

**Evaluation Criteria:**

- Clarity and thoughtfulness of approach
- Code quality and documentation
- Creativity in applying ML concepts
- Relevance to NLTl's vision (law mentorship and aspirant support)