

How to Implement Learning Plans:

1. Input Data:

- **Course material** (e.g., lecture slides, textbooks, practice exercises, and past exams).
- **Deadlines:** For exams, assignments, or presentations.
- **Student preferences:** How much time the student has per day or week for studying.

2. Plan Creation Process:

- **Topic Extraction:** Use the **Olama model** or other NLP techniques to **extract key topics** from the provided learning material (lectures, exercises, past exams). This might include:
 - Summarizing the content.
 - Identifying **important terms, concepts, and topics**.
 - Creating a list of **key topics** to cover.
- **Prioritization of Topics:** The app could prioritize topics based on:
 - Difficulty (e.g., based on quiz performance or student feedback).
 - Importance for exams or assignments (e.g., based on the student notes / old exams or focus of the course).
- **Study Sessions:** Create a daily or weekly **study schedule** that includes:
 - Suggested study sessions for each topic.
 - Time slots based on the student's availability and the time required to study each topic.
 - A balanced schedule, ensuring the student has breaks and sufficient time for review.
- **Adaptive Learning Plans:**
 - Use **machine learning algorithms** to adapt the study plan as the student progresses. If a student struggles with a specific topic, the app could allocate more time for that topic.
 - Adjust based on feedback: If the student feels they need more time or doesn't understand a concept, the app could recommend more resources or study techniques.
- **Reminders and Alerts:** Set up **notifications** or reminders for study sessions, review sessions, or upcoming exams.

3. Learning Plan Example:

If a student is preparing for a **Math exam** in two weeks and has three hours a day for studying, the app might create a schedule like this:

Week 1 (Introduction to Algebra):

- **Day 1:** Study Chapter 1 (Algebra Basics) – 1 hour.
- **Day 2:** Practice problems for Chapter 1 – 1 hour.
- **Day 3:** Review Chapter 1, Continue to Chapter 2 (Equations) – 1 hour.
- **Day 4:** Practice problems for Chapter 2 – 1 hour.
- **Day 5:** Study Chapter 3 (Functions) – 1 hour.
- **Day 6:** Practice problems for Chapter 3 – 1 hour.
- **Day 7:** Review Chapters 1-3 – 1 hour.

Week 2 (Advanced Algebra and Review):

- **Day 8:** Study Chapter 4 (Polynomials) – 1 hour.
- **Day 9:** Practice problems for Chapter 4 – 1 hour.
- **Day 10:** Study Chapter 5 (Linear Equations) – 1 hour.
- **Day 11:** Practice problems for Chapter 5 – 1 hour.
- **Day 12:** Take a practice test – 1 hour.
- **Day 13:** Review practice test, focus on weak areas – 1 hour.
- **Day 14:** Final review and relaxation before the exam.

Updating the Plan Based on User Input:

Step 1: Collect User Feedback

After each study session or quiz, prompt the user to provide feedback:

- **Was the topic difficult?**
- **Did they complete it?**
- **How much time did they actually spend?**