# Future Planning Report: AI Study Coach with EduVision Integration

## 1 Overview

The **AI Study Coach** is planned to be extended with **EduVision – an Automated Slide Generator from Notes**. This module will allow users to upload raw notes (TXT/Markdown) or type content directly, and the system will automatically generate ready-to-use PowerPoint slides. Using `python-pptx` for slide creation and optionally OpenAI LLMs for structuring notes into clear outlines (titles + bullet points), EduVision will streamline the process of preparing revision materials, study summaries, or class presentations.

## 2 Planned Features

The combined platform will integrate the following modules:

- **Smart Study Scheduler (OR-Tools):** Generates optimized weekly timetables that balance subject difficulty, daily study limits, and mood/habits data.

- **Mood Journal (Hugging Face):** Logs daily reflections, sentiment scores, and adjusts study intensity dynamically.

- **Habit Tracker (scikit-learn):** Tracks user habits, predicts streak consistency, and recommends alternative activities when motivation is low.

- **EduVision Slides (python-pptx + OpenAI):** Converts notes into structured, customizable PowerPoint decks.

- **Customization:** Users can select slide count, theme, and preview content before export.

- **Export Options:** Supports CSV/PDF for schedules, reports for moods and habits, and PPTX for slides.

- **Unified Dashboard (Streamlit):** A single interface integrating all study, habit, mood, and slide tools.

# 3 Advantages

- **Holistic Productivity Tool:** Combines time management, mental health support, habit reinforcement, and content generation in one app.

- **Time-Saving:** Automates both scheduling and slide creation, reducing manual effort.

- **Adaptive Learning:** Adjusts study load to the user's emotional state and motivational levels, preventing burnout.

- **Seamless Workflow:** Notes → AI Slides → Easy revision or presentation.

- **Professional & Academic Value:** Demonstrates integration of optimization (OR-Tools), NLP (Hugging Face), ML (scikit-learn), and LLMs (OpenAI) in a single product.

# 4 Challenges and Considerations

- **Complexity:** Integrating four systems (schedule, mood, habits, slides) requires careful architecture and testing.

- **Performance:** Running NLP, ML, and scheduling in real-time may strain low-resource systems.

- **AI Dependency:** High-quality slide generation depends on LLMs; without them, slides may be more basic.

- **User Experience:** With multiple features, onboarding and guidance will be key to avoid overwhelming users.

# 5 Conclusion

With EduVision integration, the AI Study Coach will evolve into a **complete academic ecosystem** – helping students not only plan and stay motivated, but also generate pol- ished revision slides. This creates a platform that makes learning more efficient, adaptive, and engaging.