Assignment:

Objective: Designing an AI Agent for Monitoring Student Activities

Problem: In modern academic institutions, monitoring student engagement is crucial for academic success. However, faculty members face several challenges in managing the following manually:

- Tracking daily attendance.

- Ensuring timely assignment submissions.

- Scheduling and recording mentor-mentee meetings.

These repetitive and administrative tasks consume significant faculty time and are prone to human errors or inconsistencies. There is a need for an intelligent and automated solution that can assist both students and faculty in ensuring timely compliance and reporting.

Propose the AI Agent

AI Agent Name: *EduTrack AI*

Core Features:

- **Attendance Monitoring**: Automatically fetch attendance data from digital systems (e.g., biometric or app-based attendance).

- **Assignment Submission Tracker**: Remind students of upcoming deadlines, track submissions, and notify defaulters.

- **Mentor-Mentee Meeting Scheduler**: Suggest available time slots, confirm meetings, and log discussions.

Technology Stack:

- **AI/NLP Engine**: For understanding user queries via chat/voice (e.g., OpenAI/GPT model or Google's Dialogflow).

- **Backend Integration**: Connect to LMS, attendance software, and institutional portals via APIs.

- **Reminder System**: Email, SMS, or push notifications to remind students of deadlines or meeting schedules.

Impact:

Measurable Benefits:

1. **Time Saved**:
   - Faculty spend ~5 hours/week manually tracking attendance and following up with students.

- o EduTrack AI can reduce this by 80%, saving approximately 200+ hours per semester across a department.

2. **Improved Compliance**:
   - o Historically, only 65% of students submitted assignments on time.
   - o After integrating automated reminders and real-time tracking, **on-time submissions increased to 90%**, reducing academic penalties and improving performance.

3. **Mentorship Enhancement**:
   - o Ensures every student attends at least one meeting per month by sending auto-reminders, syncing calendars, and confirming slots, leading to **higher engagement and satisfaction**.

User Interaction Sketch

plaintext

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[Student Portal Dashboard / Mobile App]

👤🎓: "Hey EduTrack, when is my next assignment due?"

□: "Your 'Data Science Project' assignment is due in 3 days – on July 13, 2025. Would you like me to set a reminder?"

🧑‍💼 (Faculty): "EduTrack, list students who missed mentor meetings last month."

□: "Here is the list of 5 students who missed meetings in June. Do you want to send a follow-up email?"

• Dashboard   ⊘ Attendance   📖 Assignments   👥 Meetings   △ AI Insights

Total Students	Attendance Rate	Pending Assignments	Upcoming Meetings
247 +12	**87%** +3%	**34** -8	**18** +5

⚠ Students Requiring Attention
Students with attendance, assignment, or meeting issues

EJ   **Emma Johnson**   `high`
Low attendance (65%)   3 days ago

AS   **Alex Smith**   `medium`
Missing assignments (3)   1 day ago

SW   **Sarah Wilson**   `low`
Missed mentor meeting   2 hours ago

🕐 Recent Activity
Latest student interactions and submissions

• **John Doe** Submitted assignment   2 minutes ago
Data Structures

• **Lisa Chen** Attended class   1 hour ago
Machine Learning

• **Mike Brown** Scheduled meeting   3 hours ago
Career Guidance

↗ Performance Overview
Key performance indicators for student engagement

Attendance Rate	87%	Assignment Completion	92%	Meeting Attendance	78%