

# Case 2

## Smart Course Selector AI Agent

### Context:

Students often struggle with course selection due to a variety of constraints — career goals, personal interests, course availability, prerequisites, and credit requirements. This process can be overwhelming, especially when course slots fill up quickly or when students are unsure which courses align best with their professional ambitions.

### Challenge:

Build an **AI-powered Course Selector Agent or Chatbot** that helps students seamlessly choose the most suitable courses for an upcoming semester.

### Your AI Agent Should Be Able To:

- Understand and process student input (e.g., profession they want to pursue, preferred subjects, time availability).
- Recommend an optimal course list that aligns with:
  - **Career goals** (e.g., becoming a Data Scientist, UX Designer, Product Manager, etc.).
  - **Prerequisite constraints** (ensuring required prior courses are taken).
  - **Credit requirements** for full-time or part-time enrollment.
  - **Course availability**, considering dynamic slots or past trends of course selection.
- Optionally, suggest **alternatives** if the first choices are unavailable.

### Possible Bonus Features:

- An interactive chatbot interface for a conversational experience.
- Integration of historical data to predict course slot availability.
- Visual roadmap of selected courses vs. career goals.

- **Get creative!** Add your own features that you think would make the project better!

**Goal:**

Create a system that personalizes the course selection process and reduces stress for students by providing intelligent, goal-driven recommendations.