Project Title: TTrack (Torrens Degree Track) – Smart Subject Requirement Checker

Project Description:

TTrack is a smart academic planning tool designed to assist students and academic advisors in tracking degree progress by automatically checking completed coursework against program requirements. The system analyses a student's academic transcript or course history and compares it with the prescribed curriculum structure of their enrolled degree program—taking into account both core and elective subject requirements.

The core functionality of TTrack lies in its ability to parse academic records, interpret institutional curriculum rules, and dynamically assess fulfillment status. It then generates an accurate report highlighting which core subjects have been completed and which are still outstanding. In addition, the system evaluates elective credits, ensuring that the student not only meets the minimum required credit hours but also selects from eligible elective categories, if applicable.

Key features include:

Course Update: uploading the course requirements in terms of both core and elective subjects in the form of Excel file.
Transcript Parsing: Automatically reads and interprets uploaded academic records in the form of excel file.
Requirement Mapping: Matches completed courses against a structured degree requirement database, including the credit hours requirements.
Progress Visualization: Displays a dashboard summarizing completed and pending subjects.
Elective Suggestions: Recommends eligible electives based on remaining requirements and student interests.
Custom Rule Engine: Supports multiple programs with distinct structures, including prerequisite conditions and elective grouping rules.

TTrack aims to reduce administrative burdens and eliminate manual errors in degree auditing, offering clarity and confidence for students planning their academic journey. The tool is particularly useful during course enrolment periods, graduation audits, and academic advising sessions, making it a practical and valuable software solution for universities, colleges, and technical institutions.