Abstract

Course advisement and results computation are tedious, time-consuming and exhaustive jobs; yet they are necessary as students’ performance/success is partly due to them. These jobs engulf cumbersome tasks ranging from course scheduling to guidance and counseling, and then the computation of Grade Point Average (GPA) for students. Improper and untimely advising or computation of results may hinder a student from timely graduation. This paper proposes the FMI course auto-scheduling algorithm which was implemented in an application called “Nixz” – a Course Advisory and Results Expert System (CARES). The inference engine of Nixz, which was programmed using Python, is a hybrid of Rule-Based Reasoning (RBR) and Case-Based Reasoning (CBR). Nixz was built to house both prescriptive and developmental advising models. Nixz reasons through forward chaining. The other programmable components of Nixz were built in C#.NET using Microsoft Visual Studio 2017. The knowledge base of Nixz was built using Microsoft SQL Server 2012.
Course Advisory and Results Expert System (CARES): An Implementation of FMI Course Auto-Scheduling

References


Index Terms

Computer Science

Algorithms

Keywords

Academic Advising, Course Advisor, Expert System, Knowledge-Based System