Software Evolution and Maintenance Project Phase 1

GitHub Repository

https://github.com/YoussefAlsaeed/Unitime-Maintenance

Links to ticketing system

ClickUp
https://app.clickup.com/9009134684/v/s/90090283206

Jira
https://workspacemaintenance.atlassian.net/jira/servicedesk/projects/MA/section/changes/custom/29

Project Description

UniTime is an open-source academic scheduling system that is designed to help universities manage their course schedules, exams, and events. It's mostly written in Java and other modern technologies so that it will be usable for many years in the future. UniTime provides a range of features and functionality that can be customized to meet the specific needs of each institution. The major goal is trying to minimize conflicts and help the students to gain their degrees on time. UniTime makes the scheduling process much easier and more sustainable, rather than one person sitting in a room trying to put schedules together, an automated process or a computerized system fully understands what constraints are being dealt with and how they're being dealt with.

Some of the key features include:

- Course scheduling: UniTime allows institutions to create and manage their course schedules, including course offerings, course times, and instructor assignments. It also deals with issues as travel time if students are in a large campus and classrooms are not all in one location, so it builds schedules for students that accommodate the fact that they may have to travel between different areas of campus and try to minimize that travel time. It also prevents conflicts, student conflicts occur when a student cannot take any combination of classes, the simplest case is when 2 classes overlap.

- Exam scheduling: UniTime provides tools for creating and managing exam schedules, including scheduling conflicts, it includes the ability to do midterm examinations and final examinations.

- Report and analytics: UniTime provides a range of reporting and analytics tools that can be used to analyze course and exam schedules, track enrollment patterns, and identify scheduling conflicts.

- Customization and integration: UniTime is designed to be customizable and can be integrated with other systems such as student information systems, learning management systems, and academic advising systems.

- Event Management: this feature is included because the classrooms that are used for the courses are often needed for a lot of needed, this on the campus whether it's student meetings or other events where the

classroom space is needed ,this is fully integrated so that when the timetable is created it automatically adds those class events so you can start managing your events based on the courses that exist in the timetable system.

The technique we used for project comprehension

We used the Top-down technique which refers to an approach where you start with a high-level view of the problem or system and then break it down into smaller, more detailed parts. This approach involves starting with an overarching goal or objective and then working downwards to define the specific tasks, processes, and components required to achieve that goal.