TIME TABLE MANAGEMENT SYSTEM

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PROBLEM STATEMENT

- The timetable is a necessary blueprint for the efficient working of an academic institute. There may arise a series of challenges in managing the timetable for an academic institution, as the process involves a lot of manual work and scheduling of course units, lecture time, lecture rooms, practical sessions and the faculty in-charge always finds it difficult to make updates of the time tables properly as there can be collisions in various lectures, tests or examinations.
- An automated system may be employed to manage the Time Table, which assists the institution to use the venues, faculty and time slots for their entire academic programme.
- A central database of all venues available, the faculty members,students (which can be U.G./ P.G./ Ph.D.), course code (like CSN 201) along with is its lectures per week(credits) is required.
- The project is aimed at automation of the time table management process, which being done manually by comparing time slots and faculty/venue clashes.

What We're Working On

MOTIVATION

- The timetable is a necessary blueprint for the efficient working of an academic institute.
- There may arise a series of challenges in managing an optimal timetable for an academic institution, as the management involves a lot of manual work.
- Any rescheduling may arise conflict in the lectures due to unavailability of venues or teachers, but currently these checks have to be performed manually after looking at each and every time table.

OBJECTIVE

AUTOMATION

By the end of the project we intend to create an automated system that is able to solve the problem using the developed system.

LESS PAPERWORK

By implementing the system we can minimize the clerical paperwork

SYSTEMATIC APPROACH

The system will provide a more layered, systematic approach to redressals.

CONSTRAINTS

HARD CONSTRAINTS

1. No student can attend more than one lecture at a time.
2. No teacher can teach more than one subject at a time.
3. No classroom(venue) can occupy more than one lecture at a time.
4. Every teacher must have a limited number of lectures per day.
5. Total number of lectures per week of a subject are fixed.

SOFT CONSTRAINTS

1. It is preferred to have one venue for a given section to prevent changing rooms frequently.
2. Multiple lectures of a course on the same day are not desirable.

Note : More constraints can be added, subject to the requirements of the user.

FUTURE SCOPE

- **TIME BASED REQUESTS**
  A further enhancement in the system are time based requests. The process for Request Handling System can stop taking any rescheduling request 24 hours prior to the scheduled lecture.
- **TWO-WAY CONFIRMATION FOR SWAPPING**
  For swapping or rescheduling of lectures, confirmation from both the teacher entities involved can also be taken into consideration. For this, through the rescheduling system process, a request can be sent to both the teaching entities, for their approval.
- **ATTENDANCE**
  Attendance-taking app can be integrated in this system. Also a reminder-based android-app can be deployed to work with this project.
- **LONG LEAVE, MEDICAL LEAVES, SCHEDULING EXAMINATIONS**
  Long leave/Medical leave requests and examination scheduling can also be incorporated to make a universal application for the College.