Goal: To automate the scheduling of courses for teaching in an academic session.

Stakeholders: Time tablecoordinators, faculty, students, HoD, Dean Academics

Room Conflict- occurs when two or more courses instructed by different instructors are scheduled at the same time in a classroom. Faculty conflict- occurs wh

Departments: Currently there are three department offering specialization in CSE, DSAI, ECE. Where as DASD deparment is currently not offering any B.Tech specialization but soon may offer some programs.

Session: The courses are scheduled in two sessions per year January-April and August-December

Year: The B.Tech degree requires four years of study. In each session, courses related to all the four years will be scheduled

Description
The software should make the best effort to shedule the courses of a session. The software should be capable of reading an existing timetable for modifications, i.e.,
The software should provide facility to configure the parameters required for scheduling. For example: slot duration of lecture can be 1 hour or 1.5 hour or 45 minut
The courses needs to be scheduled in a classroom that is sufficient to hold the number of registered students. In case, it is not possible to schedule all the registered
The course components should be scheduled/ distributed over the week. Avoid scheduling multiple components of a course in a single day of the week. Labs can be
Courses with same course code can be offered by different departments. The software should schedule each instance of the course separately
The course scheduling must adhere to the number of hours specified in the LTPS structure (Lecture, Tutorial, Practical, Self-study) of the course. Wherein 1 hour of
Elective courses may be grouped into baskets, which will allow simultaneous scheduling of courses in a basket. Elective courses can be registered by students belongi
Lab sessions of the course needs to be allocated based on the lab room capacity. This would require making multiple batches from the total number of registered
A morning break (default 15 minutes), lunch break (default 45 minutes) and inter-class break (default 5-minute) should be included while scheduling courses on each
A course instructor should not have consecutive classes. In case, where it is unaviodable to schedule multiple classes, at least 3 hours of time difference should be
A course instructor should be able to provide his/ her desired day and time of the week where the course component needs to be scheduled. The software should
The software should provide facility for the time-table coordinator to reserve certain time slots. In such cases the software should not allocate any courses to those ti
The software should provide facilities to integrate the desired courses slots into his/her Google calender.
The software should provide means for visualizing the Time-table for different viewers: faculty, student, coordinator, etc. There should be facility to export the time
The software should be able to schedule the exam time-table for the courses in such a way as to minimize the number of days required to conduct the exams. The on
The software needs to provide reports on room usage, instructor effort, student effort
Taching assistants needs to be allocated for courses where the registered students are greater than 100 (configurable parameter). Lab assistants needs to be allocate
The software should schedule the lunch breaks for different year/ departments in a staggered fashion so as to avoid over-crowding of boys mess.