**SSN COLLEGE OF ENGINEERING**

**UCS 2201 Fundamentals and Practice of Software Development**

**Project on Timetable Management System**

P1: Timetable Management System for an Academic Institution

BY TEAM M:

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Introduction:

Timetable scheduling has been in human requirements since all thought of managing time effectively. This article represents a input and output technology of timetable management system. A block diagram is given as a overview of our ideas. The algorithms that are used for solving the problems have been introduced and the time line of our project has been designed. Now, the goal is to find a feasible assignment for all the classes of all courses to a time slot and a room subject set of constraints.

TECHNIQUES:

User interface:

Input module: Accepts input from the user and Creating the SQL database for

Input and output display

Output module: Modules to use SQLite/Pandas For Tabulation

GENERATING MODULE :The module will be written only in fundamentals of C

BLOCK DIAGRAM:

GET THE INPUT

Creating SQL database

Generation MODULE

LAB ALLOCATION MODULE

DEPARTMENT COURSE ALLOCATION MODULE

NON DEPARTMENT COURSE ALLOCATION MODULE

Print CLASS TIME TABLE using SQL/Pandas

ALGORITHM:

Algorithm Input Data

Input: No of Teachers ‘N’, No of classes, No of subjects/courses ‘n’, No of periods per day, Lunch and Break time.

1.for i=1 to N

Teacher name i

Course Teacher Course

End for

2. for j=1 to n

Subject subject name

End for

The data are stored in SQL database .

GENERATION MODULE:

LAB ALLOCATION MODULE:

Step 1.Start

step 2.Two Lab sessions are allotted in the morning of any 2 random weekdays.

step 3.These 2 days are flagged.

step 4.If Lab sessions are allotted in the morning they are flagged true otherwise flagged false and function is called again.

step 5.6 hours Time slots are allotted randomly in this module.

step 6.timetable will have 30-6=24 hours left.

step 7.End

DEPARTMENT COURSE ALLOCATION MODULE:

Step 1.Start

step 2.High credit course are filled everyday of 1 hour at random slots.(5)

step 3.filled slots are checked with faculty contraints and flagged.

step 4.if flag is true then time slot is allotted otherwise randomfunction is used.

step 5.One day from three without lab session is chosen and marked for full day theory class.

step 6.six theory classes are filled in marked day.(5)

step 7.two departmental courses allotted in the first hour in the unmarked 2 alternate days .(2)

step 8.one hour of department course alternate to lab course allotted in lab marked days.(2)

step 9.now time table will have 24-14=10 slots left.

Step 10.End

NON DEPARTMENTAL COURSE ALLOCATION:

step 1.Start

step 2.remaining slots are filled for two non departmental courses each of two hours(4)

step 3.they are flagged checked with faculty and course constraints if true, slots allotted otherwise function called.

step 4. elective subjects are filled in remaining three slots by flagging with faculty constraint.(3)

step5.library,sports,mentor are allotted in remaining slots(3).

Step 6.timetable will have 10-10 =0 hours left.

Step 7.In each module faculty contraints are checked and allotted if flag is true else randomly allotted again.

Step 8.End

Algorithm Output module:

Input : Time slots

Output: Display the time table for classroom

Modules to use SQLite/Pandas for Tabulation

TIMELINE:

Week 1: Creating the SQL database will be done by MOULI PIRASADH

Week 2 Lab allocation Module will be done by MEGA V

Week 4: Department course allocation Module will be done by MITHILESH REDDY M

Week 5:Non department course allocation will be done by MEGA V and MITHILISH REDDY M

Week 6 Using SQL the output Module will be done by MOULI PIRASADH R and Project Submission

APPLICATION:

This helps to create timetable for schools, colleges, universities and other institutions with proper analysis of the data given by the user as the input.

SOFTWARE LIFETIME:

This application helps to work during normal working days. Due to calamities like Climatic change, Covid pandemic, etc., the working hours may vary. During these period this software may not work properly. May be , certain changes are done to make it effective

CONCLUSION:

The major benefit of this project is to be user friendly and provides faster and better generation of timetable, which in turn saves time. The given input must be processed in a efficient way to obtain the desired result using this application.