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Pravin Patil College of Diploma, Engineering and Technology Schedule Generator

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ABSTRACT-

This project presents a practical scheduling algorithm that can solve strong and weak constraints. Each class and teacher creates a routine for students. This avoids schedule conflicts and ensures a precise schedule is followed. Schedule Generator, Colleges, Universities, Institutions, etc. is a type of generator to create a plan for this project idea to help faculty and students make the necessary schedule. The schedule generator helps you avoid the complexity and manual schedule preparation. This program is designed so that users can manage it without any hassle.

Index term – Product Schedule, Availability, Teacher, Schedule Algorithm, etc.

INTRODUCTION

Schedule generator is a type of generator to make plans for Colleges, Universities, Institutions, etc. The idea of this project is to help lecturers and students make the necessary arrangements. The schedule generator helps you avoid the complexity and manual schedule preparation. College scheduling is still done manually because of the difficulties faced. A constraint satisfaction problem is a problem that finds a solution that satisfies a given set of constraints. Automating this process with a computer-aided graph generator can save time for managers involved in creating and managing training programs.

PROBLEM STATEMENT

We understand that manual scheduling never works. That's why we came up with this generator to make it easier than ever. A manually designed schedule can easily fall into a trap, but this schedule generator cannot easily fall into a trap. Manual work creates a conflict between time, college, and faculty.

SOLUTION

Our goal is to create an application that will help universities, colleges, and institutions to design the curriculum of various departments and various courses. This system will help you create a plan based on your smart plan. It is easily accessible to users, but only developers can modify it. The program is more useful and easy to follow compared to manually prepared plans. There will be a login page which has 3 attributes admin, student, lecturer who can login using username and password.

EXISTING SYSTEM

There are some programs that can create schedules, but they are not secure and cannot set weekly or monthly schedules. In this system, the administrator can enter the name of the student, faculty, course, etc. we ensure that they can enter their details and we will store them in our database. Admin will enter the details and after that it will go into production mode. When creating the schedule, if there is a conflict, generator will automatically change it.

LITERATURE SURVEY

In a study published by **Smith et al. (2020)** in the Journal of **Educational Computing Research**, the authors investigated the use of an automated timetable generator in the context of academic scheduling. They found that the generator was able to efficiently create schedules that met the preferences of both students and instructors.

We review research and summarize existing issues, and propose a model for a schedule generator. In the meantime, check out the problems we faced when we created our own graph generator. This program not only solves the shortcomings of existing plan generators, but is also simple and easy to use, powerfully versatile.

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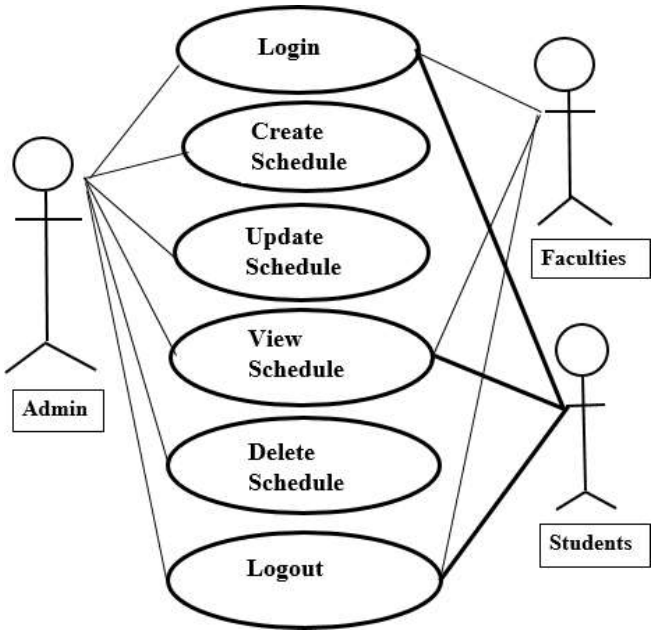
FUTURE SCOPE

This software solves the problem of creating time tables manually. The main limitation is to save time and effort for the time table creation process. Faculty information in the database can be used to record faculty expertise in specific courses. A possible future aspect of the project is the development of a master plan for the department and the entire college. This program is very useful for strict schedule enforcement such as students preparing for competitive exams, working people who need a schedule to find time for themselves, family and friends, and it also helps with the strict schedule of CEOs. The precision of the specification project will lead to a more corrective approach to the creation of these graphs. This update allows me to make additional changes while maintaining the approach and methods used in this project.

METHODOLOGY

It is easily accessible to users, but only developers can change it, but the advantage is that users are immediately notified of updated features. The program is more useful and easy to follow compared to manually prepared plans. Full system specification including scheduling policies. Database must be created. In accordance with the rules adopted for the purpose of keeping records. List all possible scenarios and then create flowcharts or mock code to manage the scenarios. Generate code based on generated flowchart or mock code. The system should be thoroughly tested by running all the test cases written for the system.

USE CASE



Schedule Creation – Enter the details into the login database and it will remember. Then you are updated again only in the syllabus. It will give proper arrangement without any conflict between college and faculty.

Update Schedule – This is the most important part of the proposed system. If we need to update the name of the course or faculty, it will help us to update it while creating the charter.

ADVANTAGES

Saves Time and Effort - Schedule Builder can automate the process of creating a schedule that can be time-consuming and complicated when done manually. With the curriculum generator, users can enter information such as subject details and faculty names, and the tool can automatically generate a curriculum that meets these criteria.

Reduces Error - Creating layouts manually can lead to errors, such as student layouts. A schedule generator can help reduce the risk of errors by applying predefined rules and constraints to the scheduling process, ensuring that the resulting schedule meets the desired criteria.

Reliable and user-friendly - the timetable generator can be created with security features that protect sensitive student information such as login credentials and teacher availability information. The tool can also be user-friendly with an intuitive interface that allows users to easily enter information and create plans.

Easily customization - The Schedule generator can be customized to fit the specific needs of colleges, universities, and institutions. For example, it can be a factor in different shifts or different types of teachers. Customizable generators can also be customized for specific colleges and specific scheduling needs.

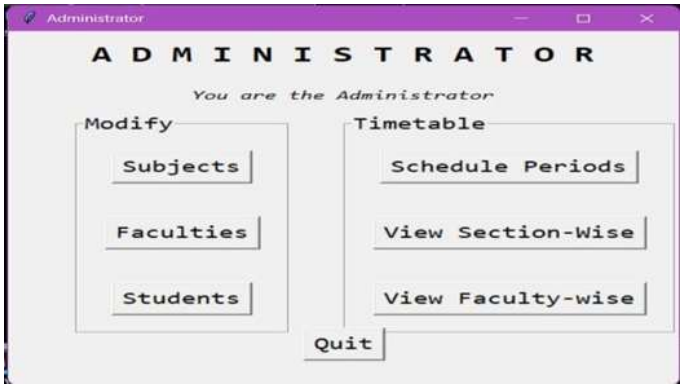
DISADVANTAGES

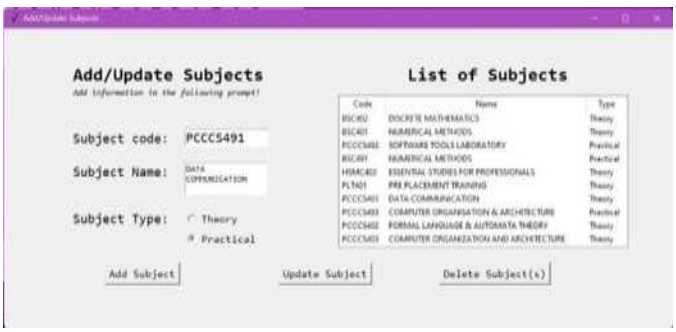
Limited flexibility: College plans are often changed for various reasons, such as class cancellations, unexpected events, or personal issues. The routines created by the program cannot quickly adapt to these changes, which can lead to confusion and daily disruptions for students.

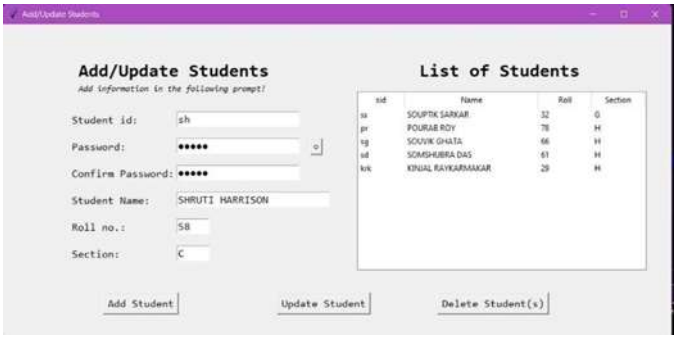
Limited Control: Schedule generators can limit a student's control over their work schedule, making it difficult to manage their workload or prioritize their assignments.

RESULT ANALYSIS

An interface for the schedule generator has been created. Using the interface, individual students and faculty are registered and view their schedules through their login ID and password. At the same time, the information is stored in the database



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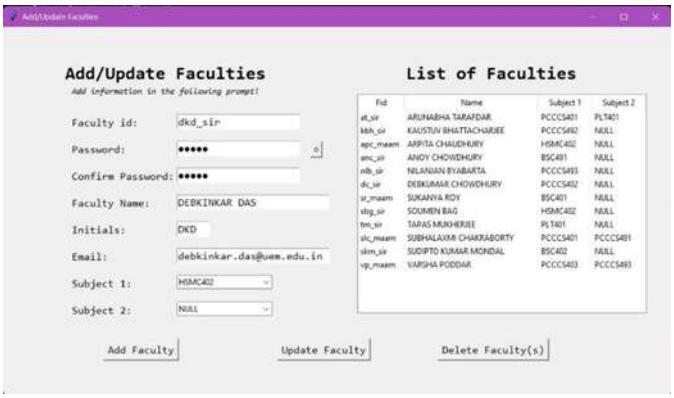
Add information in the following prompt!
Student id: sh
Password: •••••
Confirm Password: •••••
Student Name: SHRUTI HARRISON
Roll no.: 58
Section: C
Add Student
Update Student
Delete Student(s)
List of Students
sid Name Roll Section
ss SOUPTIK SARKAR 32 G
pr POURAB ROY 78 H
sg SOUVIK GHATA 66 H
sd SOMSHUBRA DAS 61 H
krk KINJAL RAYKARMAKAR 29 H


Add/Update Faculties
Add information in the following prompt!
Faculty id: dkd_sir
Password: •••••
Confirm Password: •••••
Faculty Name: DEBKINKAR DAS
Initials: DKD
Email: debkinkar.das@uem.edu.in
Subject 1: HSMC402
Subject 2: NULL
Add Faculty
Update Faculty
Delete Faculty(s)
List of Faculties
Fid Name Subject 1 Subject 2
at_sir ARUNABHA TARAFDAR PCCCS401 PLT401
kbh_sir KAUSTUV BHATTACHARJEE PCCCS492 NULL
apc_maam ARPITA CHAUDHURY HSMC402 NULL
anc_sir ANOY CHOWDHURY BSC491 NULL
nlb_sir NILANJAN BYABARTA PCCCS493 NULL
dc_sir DEBKUMAR CHOWDHURY PCCCS402 NULL
sr_maam SUKANYA ROY BSC401 NULL
sbg_sir SOUMEN BAG HSMC402 NULL
tm_sir TAPAS MUKHERJEE PLT401 NULL
slc_maam SUBHALAXMI CHAKRABORTY PCCCS401 PCCCS491
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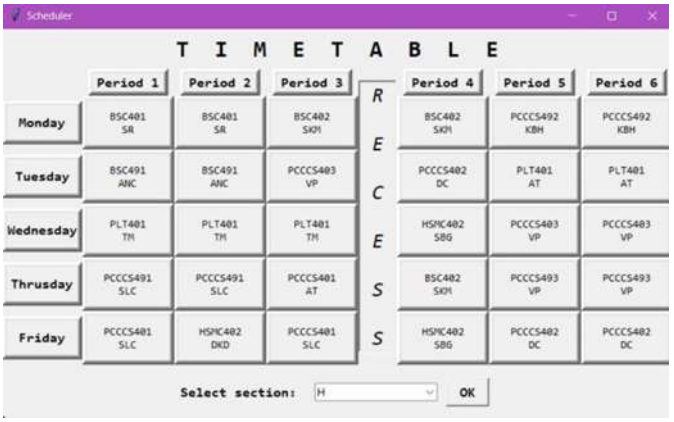
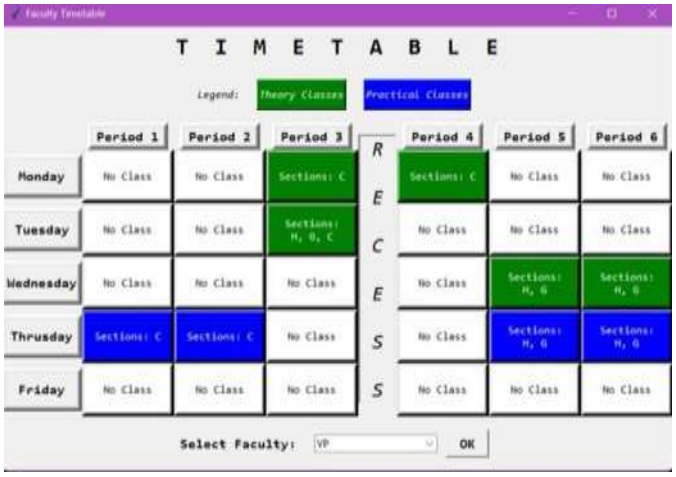
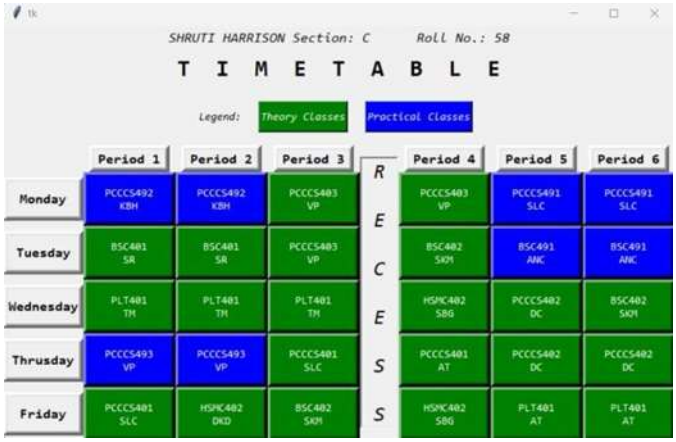

Scheduler
T I M E T A B L E
Period 1 Period 2 Period 3 RECESS Period 4 Period 5 Period 6
Monday BSC401 SR | BSC401 SR | BSC402 SKM | BSC402 SKM | PCCCS492 KBH | PCCCS492 KBH
Tuesday BSC491 ANC | BSC491 ANC | PCCCS403 VP | PCCCS402 DC | PLT401 AT | PLT401 AT
Wednesday PLT401 TM | PLT401 TM | PLT401 TM | HSMC402 SBG | PCCCS403 VP | PCCCS403 VP
Thrusday PCCCS491 SLC | PCCCS491 SLC | PCCCS401 AT | BSC402 SKM | PCCCS493 VP | PCCCS493 VP
Friday PCCCS401 SLC | HSMC402 DKD | PCCCS401 SLC | HSMC402 SBG | PCCCS402 DC | PCCCS402 DC
Select section: H OK


Faculty Timetable
T I M E T A B L E
Legend: Theory Classes Practical Classes
Period 1 Period 2 Period 3 RECESS Period 4 Period 5 Period 6
Monday No Class | No Class | Sections: C | Sections: C | No Class | No Class
Tuesday No Class | No Class | Sections: H, G, C | No Class | No Class | No Class
Wednesday No Class | No Class | No Class | No Class | Sections: H, G | Sections: H, G
Thrusday Sections: C | Sections: C | No Class | No Class | Sections: H, G | Sections: H, G
Friday No Class | No Class | No Class | No Class | No Class | No Class
Select Faculty: VP OK



CONCLUSION

Thus, the goal of the project is to reduce the time consumption and pain of manual scheduling. This project is designed to be conflict-free, giving you features to customize your plans. A possible future development of the project is to develop a master plan for the department and the entire college.

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