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Automatic Timetable Generator

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Abstract: *The program we are proposing is aimed at an intelligent autogenerate planning system specific to the field of education. In the construction of an accurate and high-quality timetable there are barriers that need to be allowed namely access to classrooms, students, teachers, courses, time spaces etc. These are annoying factors that contribute to the challenges of similar production. Based on the uploaded information, the system will generate a class schedule automatically with customized configuration for each user*

Keywords: Mobile App, React Native, Create automatically

I. INTRODUCTION

Initially, prior to the enrolment of a new semester, the timetable committee of TOSFIT have to arrange manually the specific requirement input data (i.e., lecturer details, courses, classes and time slot) into their existing scheduling system. It is essential to ensure the precision of generated timetable to evade any discrepancy and failure on the scheduling system. Though various approaches automated system is available to solve the timetable management problem, however, most of the organizations/universities still endure to solve the problem manually. This is happened due to most of the available system are yet to provide additional features for customaries to furnish users special needs. It is essential to note that each course may have one or more lecturers and classes depending on the total number of students registered at the particular semester.

II. LITERATURE SURVEY

Damage A [1], evolutionary techniques used to solve the problem of scheduling time. Methods such as Genetic Algorithms, Evolutionary Algorithms etc. used with mixed success. In this paper, we have reviewed the problem of scheduling an educational timeline with a genetic algorithm. We also solved the problem with a mimetic hybrid algorithm, a synthetic genetic defense network and compared the result with that found in the genetic algorithm. The results show that GAIN is able to reach a possible solution faster than that of GA.

Dipti Srinevasan [2], Discover the study schedule that is possible at the university's main department is a recurring problem facing academics. This paper represents an evolutionary algorithm (EA) approach based on solving the university's robust timetable problem. Moving to problematic chromosome representation. Heuristics and contextual-based thinking using timetables may have been obtained at the right computer time. An ingenious genetic modification scheme has been used to improve cohesion. The comprehensive curriculum plan presented in this paper is approved, evaluated and discussed using real-world data from a major university. C.

Anuja Chowdhary [3] introduces an effective timing algorithm that can effectively manage both strong and weak obstacles, which is used in an automated timeline system. So that each teacher and student can look at their timetable after they have completed a particular semester but do not plan. The Timetable Generation System generates a timeline for each class and teachers, in line with the teacher's calendar, availability and power of visual resources and other rules applicable to different classes, semesters, teachers and grade level.

Anirudha Nanda [4], suggests a common solution to the problem of timing. Most of the proposed previous heuristic programs of difficulty from the perspective of students. This solution, however, works from the point of view of the subject, that is, the availability of the instructor at a given time. Although all potential barriers (e.g., teacher availability, etc.) are solved firmly, the planning solution presented in this paper is flexible, with the primary purpose of resolving academic and academic conflict, teacher-related issues.

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This algorithm uses a heuristic approach to provide a complete solution to the difficulty of scheduling school time. Initially it uses randomly generated title sequences to create a temporary timeline. If a teacher is divided beyond the maximum allowable subjects the subjects are transferred to the Clash data structure.

III. PROBLEM STATEMENT

The problem of setting time tables can be modeled as a problem of limited satisfaction with multiple parameters and loose parameters. These issues should be modeled in a format that can be handled by the scheduling algorithm. Planning involves allowing a number of intelligent limits where tasks can be performed simultaneously. For example, in an attempt to organize classes at a tertiary institution, two courses taught by the same faculty may not be scheduled at the same time. Similarly, the two subjects required by the same group of students should not be contradictory.

IV. EXISTING SYSTEM

The construction of a timetable is tedious and time consuming. Currently this is done manually as there are no time table generators running. While inserting the timetable the basic problems are slot collisions. Sharing the times itself is so tedious that sharing the entire time table does not work well when done in person. Therefore, even the software that has already been created does not conform to the rules. So, the current system is time consuming, a tedious process that requires manual labor and simultaneously, with little flexibility. We therefore propose a system to create a default timeline. An algorithm-based application provides timelines (theory and labs) in such a way that no clash of clans or clashes of intellect is achieved. The lessons are matched in such a way that teachers remain consistent and there are no seasonal conflicts. Subjects are assigned as important in terms of the number of lessons per week for that course. The most important lessons are first given a number of times per week and appropriately assigned. Also, matching labs are assigned to the appropriate date. This helps to satisfy the limit of the number of courses per day for both theory and intelligence. We offer teachers lessons according to their positions and preferences. This is done starting with the priority lesson and then the reduction of the main subjects and then the unassigned subjects. This maintains great care for skills selection and p. This process not only creates a possible Time Table for the department but also a very good one. The result of the app is not only a class time table but also an intelligent timetable, both excellent. The proposed system is based on a heuristic algorithm that captures values and manages obstacles and scheduling individual resources. The program develops a study schedule and staff schedule. It carries the responsibility for the speech function evenly throughout the specified periods. Prioritizes presentations according to customizations. If the speech cannot be corrected then it can be promoted to the most important position until it is properly corrected. In our system we also use features other than Timetable production, such as a student-teacher forum, where students can pose their questions and teachers can answer. Also, teachers can upload e-books and student presentations. This will be very helpful for students as they can access these learning resources at anytime, anywhere and have their questions resolved and referred to them at any time as well. Also, students will be able to provide updates on all lectures with teachers. This will help you to get an idea of the timetable and how learners measure presentations based on their understanding of the subjects and topics taught in those subjects. This review will also help staff to understand and analyze what extension students understand and which topics they find difficult to understand during lectures. Teachers will then be able to organize and re-organize student talks.

V. MOTIVATION AND NEED

Educational institutions still use a standard method, i.e., timetable registers for managing timetable records and classes. The educator must create a plan for the growth of the number of employees that results in wasting valuable time from critical study time. This program provides a systematic and effective solution for the instructor to manage the record. It consumes a lot of time by generating a timeline automatically. A timetable for developing a program can be used in colleges and universities to create a timetable. It can also be used to manage time. There is no time conflict in the faculty. Faculty does not need to create a time table on excel sheets The Faculty can focus on other things rather than

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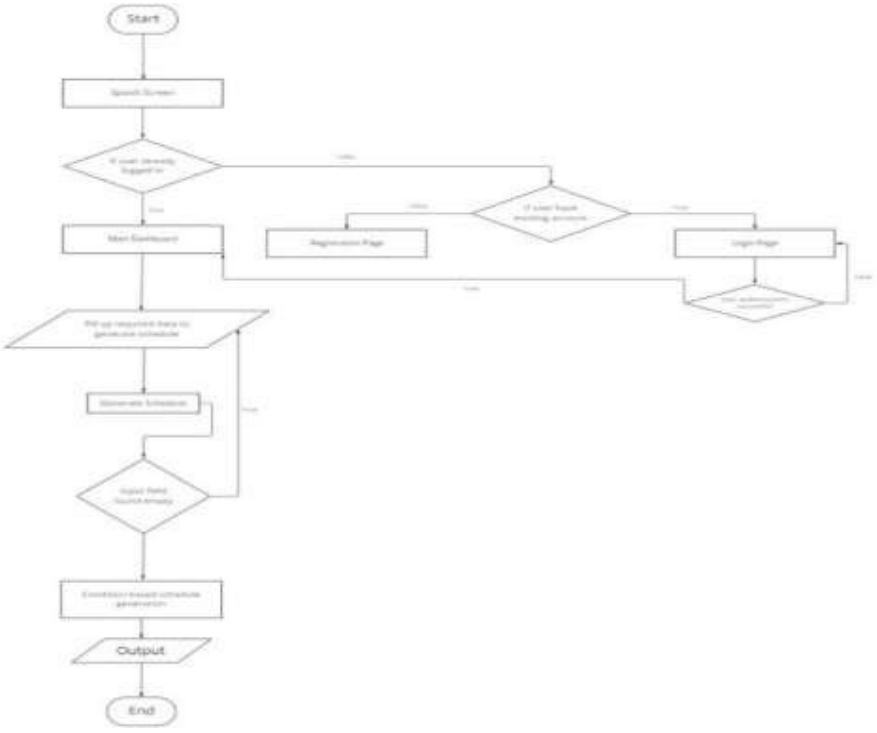
wasting their time preparing the Time-Table. It is easy for Sfor teachers to keep up-to-date with information about times and to see if classes are available or not

VI. PROPOSED SYSTEM

Home Page contains a Login and Registration Page, where the teacher will fill in some basic information about him, her appointment, and the department to create a teacher account in the application. - After logging in, the teacher's username and password are provided. Here the teacher is asked to choose between 1. Lesson, teacher and class 2. Semester and topic Choice - On the teacher's login page fill out the login details such as username and password and the registration details and if the username and password match from the authenticity site provided to the teacher. -After login you will be redirected to the homepage which will contain the various Departments and will have a menu bar where different options will be presented to the selected page such as Home, This Record. Readers Then Login Details, Settings and finally Exit page. -If you click on the door, you want it will redirect you to the page where it will be. It will redirect you to a page where there will be lines for First, Second, Third and then select one where you will be redirected to a page that will have a faculty name and a button that will display a time table with one click - When you click on 'Add Faculty, Classroom and Times' there will be various details of the teachers to be included such as Teacher Name, Telephone Number, and time table button. Once your task is complete you can exit the app. An application to connect to a website. With this we can save all the fields that will be useful to keep all the details of the timetable or we can save the names of the teachers of the different classes or branches. With this website we can create, add, update or delete teacher information as per your concerns. We can use the website to store teacher information and thus be able to create our own timetable.

VII. SYSTEM ARCHITECTURE

For studying the working in timetable production, we are able to show the data flow diagram which shows how the system works and what is implemented in the system. It shows the elements of the system.



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It also shows the interactions between these elements. The models govern the composition and the constraint of these models. When the system faces a complex problem, the system breaks it down into parts that become easier to solve with simple solutions. Then, by combining all these small solutions, we can find the solution to our complex problem. A flowchart is a type of diagram that represents an algorithm, workflow or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to the problem of the system.

VIII. FUTURE SCOPE

This software is a solution to the problem of making a timeline manually. Its main function is to save time and effort in the process of producing a time table. Intelligent data in the database can also be used to keep a record of intellectual experience in specific subjects. The accuracy of the Project Feature will provide a more flexible approach to producing this timeline. This project will produce output that fixes most without errors. Future improvements that can be made to the project make it a good time plan for departments and the rest of the college. This improvement can be achieved by making additional changes by keeping the method and techniques used in this project.

IX. CONCLUSION

It is a difficult task to manage many Faculty and assign subjects on time physically. Therefore, our proposed system will help overcome this inconsistency. Therefore, we can produce a timeline for any number of courses and semesters. This program will help you to create flexible pages so that in using such a program we can use a variety of tools that are more efficient and freer to use. Different timetables for each class, genres and labs are automatically generated by this system. A combination of different slots can be obtained to make another timeline as needed. The project minimizes time usage and you feel the pain in installing a timeline. The project is developed in such a way that, no slot conflicts occur that provide the timetable features as you wish. Future improvements that can be made to the project make it a good time plan for departments and the rest of the college. This improvement can be achieved by making additional changes by keeping the method and techniques used for this project.

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