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TECHNOLOGY****DYNAMIC TIME TABLE GENERATION SYSTEM FOR COLLEGE****Deokar Anuja T. *, Bagal Rupali R., Morve Kajal P., Prof. Mr. Gaikwad M.S.**

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ABSTRACT

The class timetabling problem is a typical scheduling problem that appears to be a very tedious job in every academic institute. Time table scheduling is done manually with single person or group of persons involved in the task. This task takes a lot of effort and time. Due to manual approach, proper use of resources is not effective and efficient also. So to overcome the drawback of existing system we propose to make an automated system for timetable generation. Our system takes various inputs such as number of subjects, teachers, depending upon these inputs it will generate possible time tables for working days of the week. Then depending on departments we can generate time table, we have utilized advanced Java, MySQL, Apache and CSS in its development.

KEYWORDS: Time Table generation, The Dynamic Timetable, personal timetable, class timetable, automated timetable generator.

INTRODUCTION

Currently the timetables of colleges are managed manually and if some problem arises then again the current time table is to change wasting the time of faculty who manages it. The Dynamic Timetable Generation System for the college solves the problem by providing a time table generation system which can solve most of the problems. Most colleges have a number of different courses and each course has a number of subjects, different subjects have different teachers. Sometime there are limited faculties, one faculty can teach more than one subject. So the timetable that is generated must be accurate.

The Automated Timetable Generator reduces the effort of faculty required while making a timetable and also minimizes the time. It provides a ready format for making a timetable, so it is easy and efficient. The timetable generator provides the timetable in charge with the needed subject name and year. It avoids the overlap of lectures by allowing the user to enter only one lecture for a particular timeslot and one teacher at a time. The overlap of labs available or classrooms is also indicated. As a faculty may be teaching to more than one department, the automated timetable generator provides the facility for communication between the in-charges of timetable for different courses. The timetable for the labs and the faculty's personal timetable will be automatically created based on the class timetable. The timetable generator is advanced Java based and uses MySQL for the database.

MATERIALS AND METHODS:

MySQL has been selected for development of the system database for several reasons. Firstly, among the various databases available in the market, MySQL has the characteristic of high speed but small volume. Secondly, it can support many popular operating systems, such as Linux, Microsoft Windows, etc. Thirdly, it provides an application programming interface for a number of programming languages. Besides, comparing with other large-scale databases such as Oracle, DB2, SQL Server, MySQL requires a lower cost. Yet, it can process thousands of records with relatively stable performance.

Since Apache HTTP Server enjoys a reputation of being reliable and trustworthy, and its high speed surpasses other servers based on HTTP server, Apache HTTP Server has become the most popular HTTP Server. Owing to these

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reasons, it has been chosen as the HTTP Server of our system. Moreover, Apache supports a number of common languages such as Perl and PHP. Most importantly, Apache can be operated in the majority of computer OS including Microsoft Windows. This allows it to be installed under Microsoft Windows without having to construct another Linux-based machine.

Technology used Application

To ensure better coordination between the Apache HTTP Server and MySQL database, Advance JAVA has been used as the programming language. Through the architecture made up of Apache, MySQL and JAVA, an inexpensive, reliable, scalable as well as secure web application has been built. Considering the need of document structure simplification, advanced CSS techniques have been applied to the design of document structure. Such application not only simplifies the document structure but also paves way for feasibility of future system expansion. For instance, functions can be added for users to determine the display format of documents. Furthermore, when there is the need to alter the user interface in future, only CSS has to be modified and the original document structure

In our proposed system consist of three views:-

- Admin view(HOD view)
- Incharge view
- Student view
- Teacher view

Admin(Department wise) will be responsible for allotting the teacher for a particular subject. Incharge power will be given to one person of each department who will be responsible for formulating and allotting slots for different courses in the department. Time table will be generated by the Incharge view in a semi-automatic way. Student and Teacher view can be accessed by all the students and teachers for viewing their respective time table.

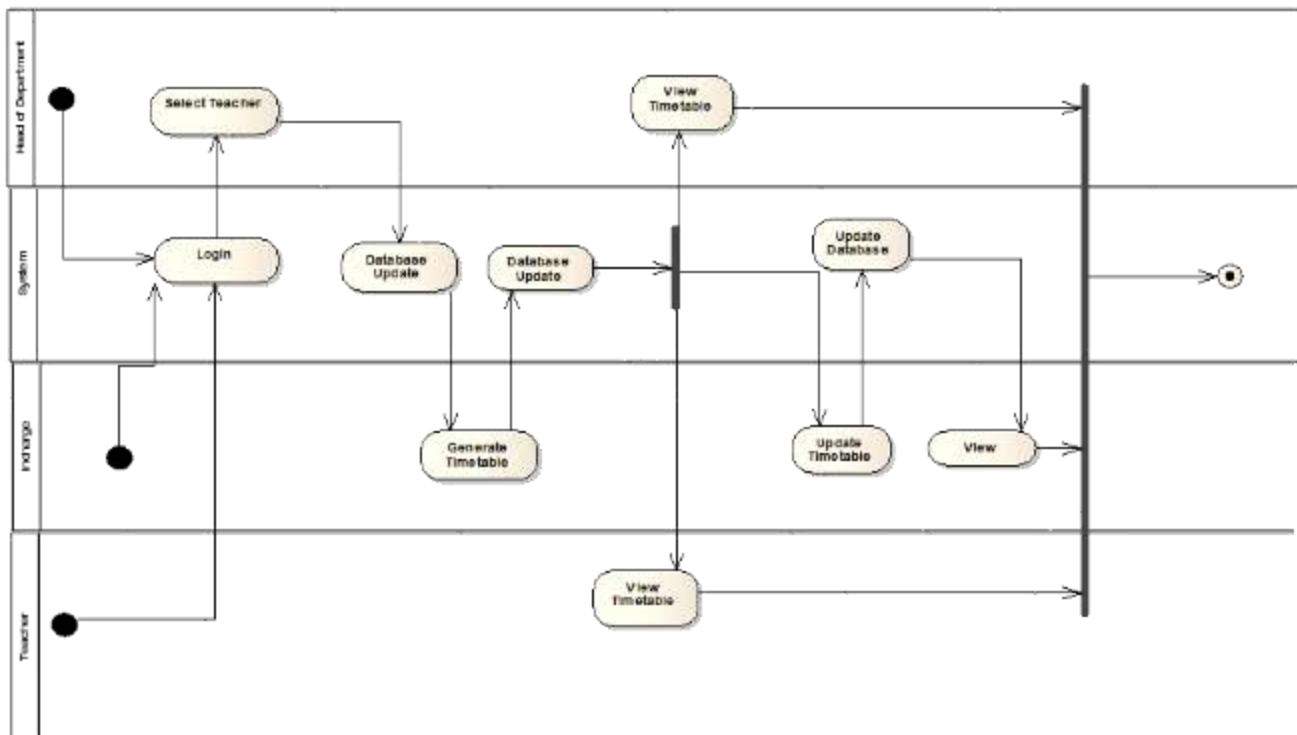


Fig 1: Activity Diagram

In our Proposed timetable generation's system covers the following features and functions:

An administrative Section which includes the following:-

- Administrator Manage all account , Department, semesters, subjects sections .
- Manage the username, password and change password
- Manage the add, drop subject
- Manage the add, edit and delete class

In charge sections:

- Generate time table
- Edit Time table
- View time tables

In student sections:

- Login & Registrations
- View updated time tables

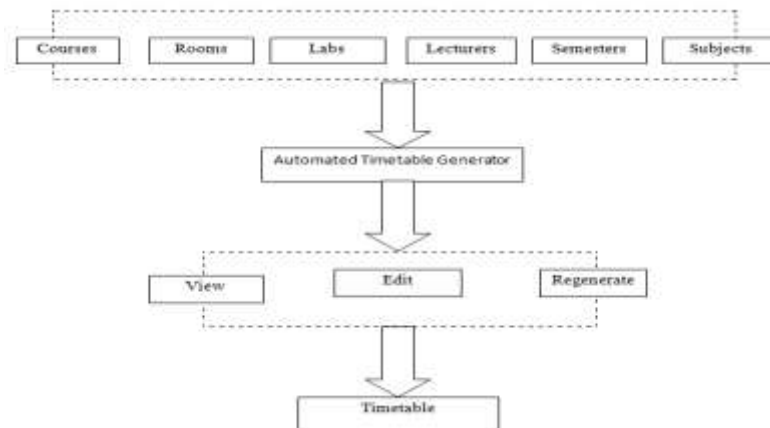


Fig 2: General view of Timetable generation(Incharge section)

RESULTS AND DISCUSSION

The following are some of the features that will be delivered by our project on completion:-

- Generating timetable for each department .
- Flexibility of time slots according to courses.
- Admin, Teacher, and Student view for their respective duties.
- Semi-automatic allotment.
- Currenttimetable status of classes going on (Department wise, Year wise).

CONCLUSION

In this paper, we presented the College time table generations web Applications and for implementations of that system we used the advance java as it is more secure, more efficient. and more attractive to users. These applications of college time table generations system currently focuses on the relationships between Staffs, incharge and HOD of each departments .

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