

Automatic Time Table Creator for Administrative Purposes

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ABSTRACT

Most colleges have number of various courses and every course incorporates a number of subjects. Now there are limited faculties, each faculty teaching over one subjects. So now the agenda needed to schedule the college at provided time slots in such ways in which their timings don't overlap and also the agenda schedule makes best use of all faculty subject demands. We use genetic algorithm for this purpose. In our Timetable Creation algorithm we propose to utilize the timetable object. This object comprises of Classroom objects and also the timetable for them likewise a fitness score for the timetable. Fitness score relates to the number of crashes the timetable has regarding alternate calendars for various classes. Classroom-object comprises of week objects. Week objects entity comprise of Days, Days do also comprises of Timeslots. Timeslot has an address during which a subject matter, student gathering and visiting the address and educator showing that the topic is expounded. Further on discussing on the imperatives, we have got useful composite configuration design, which will make it a well extendable to incorporate or uproot as the numerous obligations. In every obligation class the condition as determined within the inquiry is now checked between two timetable objects. Besides on the off chance is that condition is fulfilled i.e. there's a crash is offered then the score is augmented by one.

Keyword: - Time table, Consists of objects and entity, System requirements are included, Advantages and Disadvantages of the system,

1. INTRODUCTION

Time table scheduling had been for human requirements since all thoughts of managing time effectively. It is widely used in schools, and other fields of teaching and working like crash courses, coaching center, training programs etc. In early days, time table scheduling was done manually with one single person or some group involved in task of scheduling it with their hands, which takes a lot of effort and time. While scheduling even the smallest constraints can take a lot of time and the cases are even more worse when the number of constraints or the amount of data to deal with increases. In such cases perfectly designed time table is reused for the whole generation without any changes, proving to be dull in such situations. Other cases that cause problem is when the amount of employers/workers are weak, leading to the rescheduling of your time table or they have to fill on empty seats urgently. They need to schedule their course to satisfy the necessity of current duration and facilities that are available to them. However, their schedule should meet the wants of the new course additions and newly enrolled students to fresh batches. This may end in rescheduling the whole schedule once more for its entire batches and to be scheduled in shortest possible time before the batch courses start. Another problem that occur when scheduling schedule for exams. When multiple batches have their exam on same day, they have to be schedules effectively taking under consideration all problems associated with the facilities that are available to conduct these exams simultaneously.

2. EXISTING SYSTEM

In the existing system, each task is administered manually and processing may be a very tedious job. The Organization isn't ready to achieve its need in time and therefore the results too might not be accurate. Due to all the manual maintenance, there are number of difficulties and drawbacks that exist in this system.

2.1 Drawbacks of the Existing System

- Increased transaction results in the increased source document and hence maintenance becomes difficult.
- If any student or staff entry is wrongly made then the upkeep becomes very difficult.

3. PROPOSED SYSTEM

The proposed system is designed to be more efficient than the actual manual system. It invokes all base tasks that are now administered manually, like the forms transactions and reports which is added advantage.

Description:

- Most colleges have variety of various courses and every course has 'n' number of subjects.
- Now there are limited faculties, and each faculty might be teaching more than one subjects.
- So now the schedule needed to schedule all the school at provided time slots in such how that their timings don't overlap and therefore the schedule schedule will make the simplest use of all faculty subject demands.
- We are using a customized algorithm for this purpose.
- In the Timetable Creation algorithm we propose to utilize the timetable object.
- This object comprises of Classroom objects and therefore the timetable for them likewise a fitness score for the timetable.
- Fitness score relates to the number of crashes the timetable has regarding alternate calendars for all the various classes.
- Classroom object comprises of week objects. Week objects consists of Days and Days consists of Time-slots.
- Time slot has an address in which a subject, student gathering going to that particular address and educator showing to the subject it is related will be shown.
- Also further on discussing, we've utilized composite configuration (design), which make it well extendable numerous obligations.
- In every obligation class the condition is as determined in inquiry is now being checked between both the timetable objects. On that off chance the condition is fulfilled, there is a crash available then score is augmented by one.

4. PROJECT DESIGN

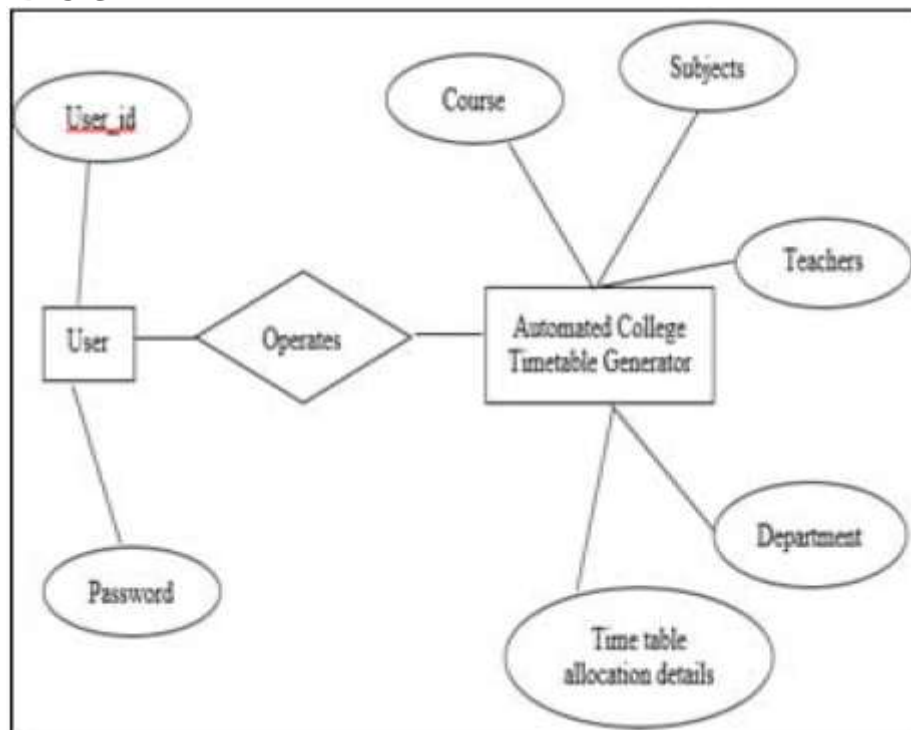


Fig. 1: ER DIAGRAM

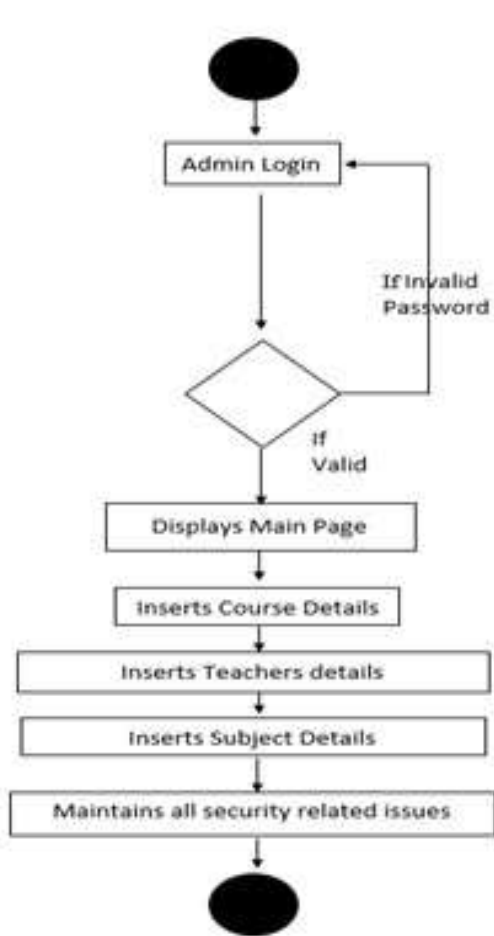


Fig. 2: USECASE DIAGRAM

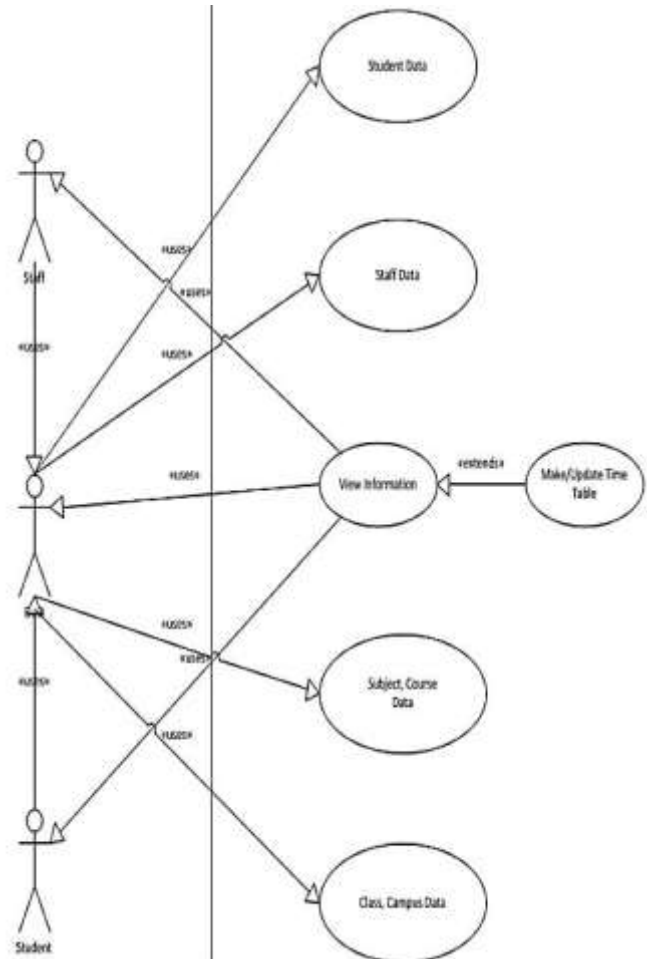


Fig. 3: ACTIVITY DIAGRAM

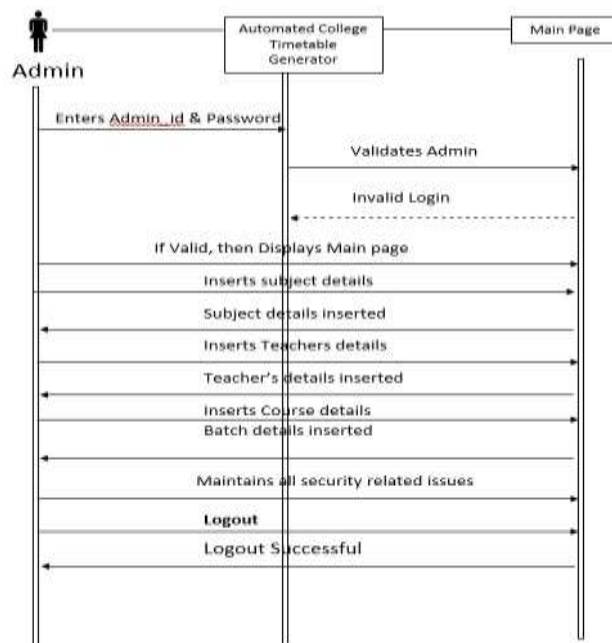


Fig. 3: SEQUENCE DIAGRAM

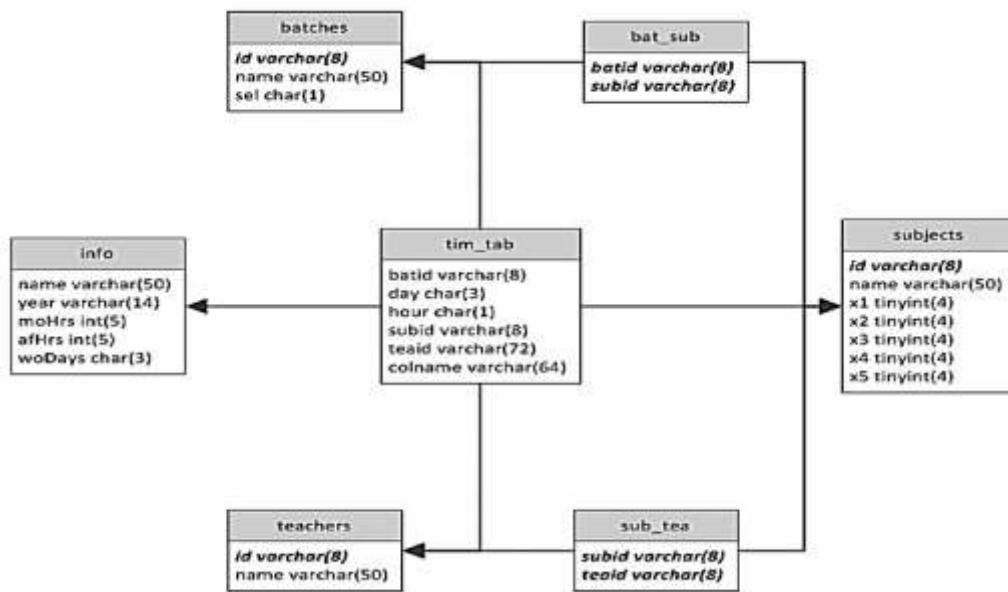
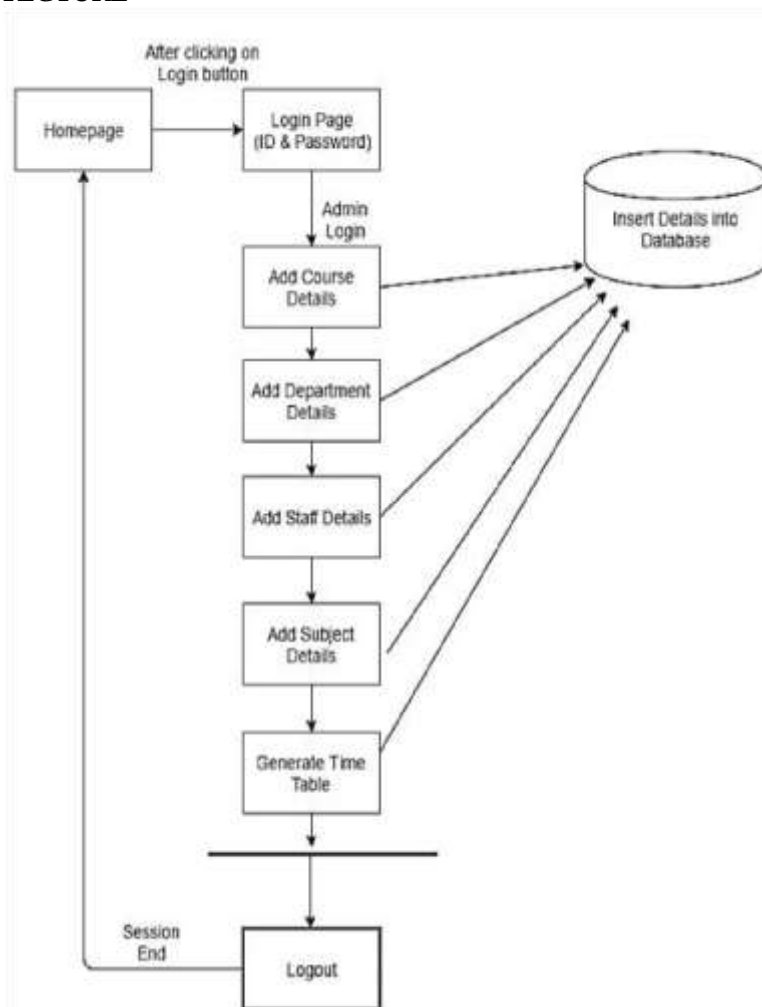


Fig. 4: CLASS DIAGRAM

5. SYSTEM ARCHITECTURE



6. PROJECT IMPLEMENTATION

The Project is loaded in Visual Studio 2010. We have used Visual Studio for the Design and coding of project. Created and maintained all databases into SQL Server 2008, in that we create tables, write query for store data or record of project.

Hardware Requirement:-

- Core i3 Processor Based Computer
- 1 GB-RAM
- 50 GB Hard Disk

Software Requirement:

- Windows 7 or higher Visual Studio 2010.
- SQL Server 2008.

7. FEATURES

- Load Balancing: Since the system are going to be available only the admin logs within the amount of load on server are going to be limited to period of time of admin access.
- Easy Accessibility: Records can be easily accessed and store and other information respectively.
- User Friendly: The Website are going to be giving a really user friendly approach for all users.
- Efficient and reliable: Maintaining the all secured and database on the server which can be accessible according the user requirement with none maintenance cost are going to be very efficient as compared to storing the customr data on the spreadsheet or in physically within the record books.
- Easy maintenance: Automatic College Timetable Creator Website is designed as easy way. So maintenance is also easy.

8. ADVANTAGES

Faculty need not worry for time clashes.

- Authority now does not need to perform permutation and combination
- Authority can consider other things instead of wasting their time on preparing Time-Table.
- Gives accurate information
- Simplifies the manual work
- It minimizes the documentation related work
- Provides up to date information
- Friendly Environment by providing warning messages.

9. DISADVANTAGES

User has got to format it a touch after it's prepared

10. REFERENCES

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