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REVIEW ON DIGITIZED INTEGRATED WEB BASED APPLICATION FOR STAFF WITH TIME TABLE SCHEDULE

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Abstract: College lecturer timetable scheduling is a time-consuming task.. Time table management module organizes the campus week, holidays, breaks in between classes and subject teacher. The Time-Table should be in such a manner that the periods allocated to the teachers and classes fulfill certain criterions and constrain. It can be used in an organization to manage staff records. It can also be used in institutes for various purposes like Slot management, Online leave application, for examples. If one of the staff member is on leave and want to manage his slot's from home itself, then by using this web base application, staff members will be able to manage the slots. It will be beneficial for an admin to check for a staff daily schedule. Digitized integrated web-based application for staff with automated timetable system will serve as the process of converting information into a digital format. Although most of the college administrative work has been computerized, the lecture timetable scheduling is still mostly done manually due to its technical difficulties. The manual scheduling of lecture- timetable requires considerable time and efforts. The lecture-timetable scheduling is a constraint satisfaction problem in which we find an optimal solution that satisfies the given set of constraints. We primarily focused on developing algorithm, which is easy to implement without compromising on its effectiveness and performance.

Keywords: Digitized, Integrated, Automated.



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INTRODUCTION

Departmental website is a online web-based management software which is specially designed and developed for the colleges and other department purpose. This software provide services for modules of the college which makes the work more efficient and consumes less time for retrieving the data. This software contains different modules such as staff details, online leave application , timetable , notice board etc.

College time table system has so many important things to maintain like subjects, classes, timings, duration, students' info and faculty details. It makes user that all the resources, man power and facilities don't clash with each other and are utilized to their maximum levels. In the present system, the departmental and college level courses time tables are maintained separately apart from the examination invigilation time tables. And the coordinators of the time tables use the auto generation tools for time table's generation or **manually** they do the time tables whenever it is needed .[2]

Staffs or authorized persons can access the time tables using their desktops connected to internet. There is no interface provided to access the time tables using the mobiles or PDAs in a friendly manner. To provide the genuine web sendees which can be accessible through the desktops, mobile or PDA devices, a model is suggested in this paper. Using the SOA this software can be built using the integration of sub systems and the enabling of workflow's and data flows with integration of loosely coupled components.[6]

2. LITERATURE REVIEW:

Existing System was manual system. The need for computerization of the existing system arose because of many difficulties, irregularities and inaccuracy present in the current system. The main cause of the worry includes missing mails, information delay, lack of interaction. In previous system colleges were maintaining time table details manually in pen and paper, which was time taking and costly. These all were the causes of the least management strategy. So, the farm decided to computerize this System.

- Existing system is based on standalone systems.
- It is developed under Windows 95 that is why it is not compatible with new operating system.
- The human resource administrator falls short of controlling the staff s activities in analyzing his/her strengths and weakness.

- Existing staff management system is not much user friendly.

Design the physical system. Specify input and output media. Design the database and specify backup procedures. Design physical information flow through the system and a physical design Walkthrough. Plan system implementation. Prepare a conversion schedule and target date. Determine training procedures, courses and timetable. Devise a test and implementation plan and specify any new hardware/software. Update benefits, costs, and conversion date and system constraints. Feasibility study. Requirements engineering. Architectural design module design.

Software development life cycle process specifies a method of developing the software. Each software development projects starts with some needs and ends with some software that satisfies those needs. A software development life cycle specifies the set of activities that should be performed to go from user needs to final products. Depending on the nature of project, a suitable model is chosen and the entire process of software requirement analysis, design, coding, testing and maintenance is performed according.

3.Existing System :

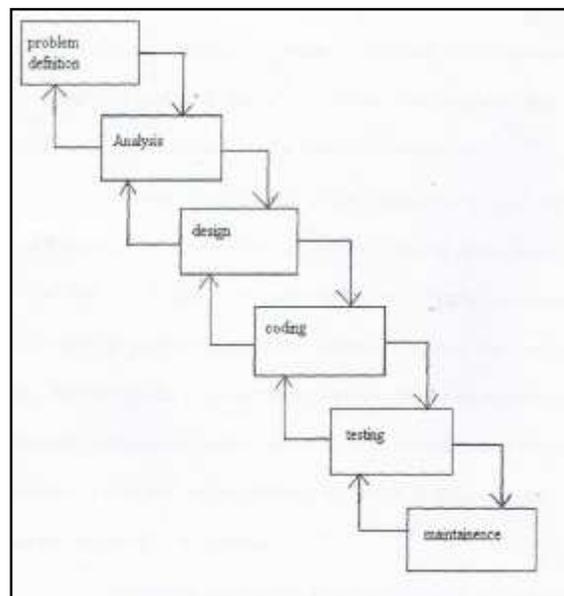


Fig. 1 Iterative Water Fall model

3.1 SYSTEM DESIGN

Design the physical system. Specify input and output media. Design the database and specify backup procedures. Design physical information flow through the system and a physical design Walkthrough.

3.2 ANALYSIS

Software development life cycle process specifies a method of developing the software. Each software development projects starts with some needs and ends with some software that satisfies those needs.

3.3 The Waterfall model :

The waterfall model is a sequential design process, often used in software development processes. It take the fundamental process activities of specification development , validation , and evolution and represents them as separate process phases such as requirements specification , software design, implementation, testing and so on.

4. diGitalized itergrated web based application for staff with automated time table system works as

The Waterfall Model

Digitized integrated web-based application for staff with automated timetable system will s^&e- as the process of converting information into a digital format. In this format, information is organized into discrete units of data (called bit s) that can be separately addressed (usually in multiple-bit groups called bytes) together with linked or coordinated aspects with an web based application application in which all or some parts of the software are downloaded from the Web each time it is run. It may refer to browser-based apps that run within the user's Web browser, or to "rich client" desktop apps that do not use a browser or to mobile apps that access the Web for additional information.

The problem is to design and implement an algorithm to create a semester course time table by assigning time-slots and rooms to a given set of courses to be run that semester under given constraints.[7]

The constraints include avoiding clashes of time-slots and rooms, assigning appropriate rooms and appropriate no. of slots and contact hours to the courses etc. Although most of the college

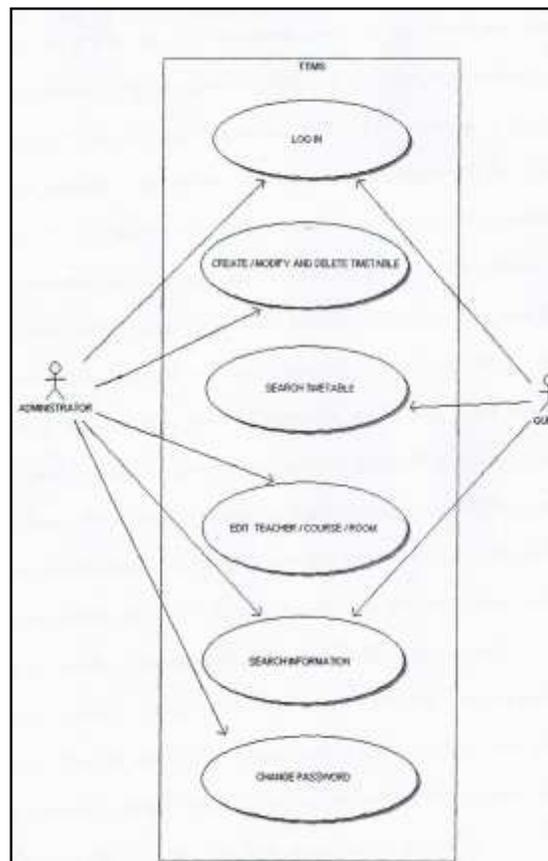
administrative work has been computerized, the lecture timetable scheduling is still mostly done manually due to its technical difficulties. The manual scheduling of lecture-timetable requires considerable time and efforts. The lecture- timetable scheduling is a constraint satisfaction problem in which we find an optimal solution that satisfies the given set of constraints. The college lecture-timetabling problem asks us to find some time slots and classrooms which satisfy the constraints imposed on offered courses, instructors, classrooms and so on. Therefore, the variables to be instantiated are time slots and classrooms of offered course.[7]

4.1. Advantages of Digitized integrated web base application for staff.

The board objective we set was to develop a generic timetable evaluator, which would allow the user in the simplest way possible to define both the situation that the timetable had been developed for, and the characteristics of good timetable. Such an evaluator could have a number of possible uses.

- To automatically determine the quality of an to give feedback on timetables generated by an automatic solver or otherwise.
- To intergrate any number of timetables.
- To develop applications for the manual building of timetables that can give feedback and make suggestions to the user as the timetable is built.
- To potentially be used as part of an automatic solver,

As demonstrated in the previous section, any timetabling problem of real world. Proportions are likely to have considerable complexity. For this reason, creating a reliable automatic solver which requires no manual intervention is a very difficult problem, and most organizations do not have such a solution. Instead, most timetables are created manually by expert administrators who have deep knowledge of the requirements of all parties involved, ^believe that a primary use of an evaluator for such timetable would be to give assistance to the manual creating and modifying of timetables. The human makes every decision, but can be guided as to what s/he can and cannot do, and can be given suggestions as to what is the better thing to do.



5. Module Digitized itergrated web based application for staff with automated time table system works as

5.1.1 Time table management

A time-table is very crucial for educational institutions and schools. We have found an effective solution to the problem of adjusting time tables in a simple and economic way. Through our interactive means we can ensure that the time-table can be generated really fast and smoothly. The software for time-table is equipped with the most efficient features that can ensure that the whole time table can be made easily to ensure that the most effective time schedules can be fixed according to the school's needs and suggestions. With the help of some really effective tools we can make sure that there are no unnecessary' delays or confusion caused with effective time-tables. The college timetable software is a powerful timetable service that helps the teachers to generate a flexible schedule for their students. The college timetable software has been developed on a user-friendly interface and the algorithm auto-generates the various combinations for both teachers and students.[6]

5.1.2. Staff Management

Staff management is the management of subordinates in an organization. Often, large organizations have many of these functions performed by a specialist department, such as Personnel or Human Resources, but all line managers are still required to supervise and administer the activities and well-being of the staff that report to them.¹⁵ Staff managers include people who lead revenue consuming departments (for example, accounting, *customer* sendee, or human resources). They serve tire line managers of the organization in an advisory or support capacity⁷ by providing them with information and advice. Furthermore, staff managers usually do not make operating decisions.[6]

Application:

- Going Paperless
- Generating reports ,
- Calculating payroll
- Substitution timetables
- Save money
- Security
- Error –free
- User Friendly

6. Future work & Conclusion

As a future work, some additional stuff could be implemented and integrated into the application code making it much more reliable and flexible; especially what concerns a pay-roll module, for instance. Apparently, the role of such systems is basic and essential within each company that wants to keep a really good control and record concerning its personnel data, functionality and performance on all levels in its structure. Every organization, in nowadays, has the necessity of managing its staff on a really good level as the staff has definitely the greatest merit of building up a company as such as it is.

The well managed employee means giving the appropriate financial awareness and all kind of benefits as such as they have been deserved. That's why the development of such systems is not just a programming business - a lot of people are ordinarily involved in such projects and one of the basic requirements is the reliability of the system, especially what concerns the storage of data and all of the operations that will be perforated upon it. Also improving problem modeling and search technique, reducing execution time and enhancing graphical user interface. More research is needed to complete our interactive, automatic timetabling system. The method, techniques and concepts developed will be tested on more datasets and application.

This system is basically used in many schools and colleges. The GUI interface is very friendly and easy to use. This system has been a big boon for the schools, colleges or any other institution that requires time-table management. Complex time tables are part of every class in a high school. The cycle changes every week or fortnight, keeping the students occupied. Smart time tables help slotting periods of the teachers grade-wise and subject-wise, facilitating smooth running of classes. The software comes equipped with well-organized tools and features, customized to suit individual school schedules and requirements.

In this report, an information system's development has been presented. It was emphasized on the basic steps, consequently taken during the project's development course as a particular attention was turned to the basic operative functions performed upon the data into the database.

7. REFERENCES

1. Andersen Virginia, *Access 2000: "The Complete Reference"*, Blacklick, USA: McGraw-Hill Professional Book Group, 2001
2. <http://msdrunicrosoft.com/3ibraiyVdefault.asp2urH/library/enus>
3. <http://www.slideshare.net>
4. <http://www.slideshare.net/imdzeeshan/time-table-mgt-system>
5. <http://www.slideshare.net/solankinirav06/>
6. <http://www.atsi.in/school-tim>
7. www.creatrixcampus.com