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## ONLINE APOINTMENT SYSTEM FOR EDUCATION INSTITUTION

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### ABSTRACT

In today's technological era, most of the colleges use the age old traditional and outdated method for the administration and day to day work of the institution. The day-to-day management for every student is still done manually for each individual, and there can be hundreds of them, which is time-consuming. The proposed application is a web application which will be used to reduce the time and efforts of our college teachers and staff. The admin can easily monitor the appointment status of all the members of the institution including the teaching and non-teaching staff. Other facilities provided in this app is a platform for scheduling meeting and meetings, making announcements for the students from the teachers which will allow the sender to send a message to multiple people all at the same time and providing a thorough time table for each class that will be conducted in the college.

### INTRODUCTION

In most of the colleges today we use the age-old traditional method for the basic work of the institution. The management for the daily task is still done manually which is time-consuming. Keeping records and creating the time table for every class, leave management and keeping track of their status is a harrowing process. The proposed application makes it easier for all the users to adopt it. This is enforced with authentication making it fairly secure. The admin can easily generate time table for every class in the institution monitor the leave status of all the members of the institution including the teaching and nonteaching staff. An additional feature provided in this application is the easy way for the college to get in touch with the alumni. So, this app takes care of the overall needs of an institution, thus making it easy and faster for the teachers in their day to day tasks. Objective the proposed application is a web application based, which is enforced with authentication making it fairly secure. The application makes it easier for the staff members to apply for a leave and thus making it easy to maintain and keep a hold of the leave applications. Other modules provided in this app are a platform for keeping in touch with the alumni and providing a thorough time table for each class present in the college. So, this app takes care of the overall needs of an institution, thus making it easy and faster for the teachers in their day to day tasks.

## EXISTING SYSTEM METHODOLOGY

The Existing who appear in the exams, eagerly wait for the results, but the university servers are so busy in the time of the results when they are released and lots of time is being consumed in waiting of the results for coming days. So, we are developing systems in which a student can pay his/her fee from their profile and even check their results.

### Limitations of the Existing System

- No software for online system.
- Busy university servers while the results are released.
- User login profiles are not user friendly.
- No online enquiry for fee dues.
- There is no predefined classification of fee categories.
- Student's data searching is not available, it is not user friendly.
- Existing system is total manual process. It is time taking process.

## PROPOSED SYSTEM ARCHITECTURE

The proposed system can access by every students/faculties/employees of the institution through internet connected computers or internet enabled mobile devices with the aid of his user name and password. Every user will have a customized home page with his/her profile management facilities. Through links that displays in the home page the user can access different options of the website assigned to him. Though the system allows access to everyone there is a significant security risk involved in this project. To tackle this problem we suggest a modular structure in the proposed system and a complete isolation of the financial and administrative modules from the public portal. Only trusted can access these modules. Web services will interact to the financial and administrative modules to fetch necessary information to display in the public portal. Although a standard password policy will be followed in the designing of the system to prevent the possibilities of malicious activities of itching users. A self driven module in the proposed system will accomplish the automated tasks such as Alerts Notifications to the administrator etc.

### Advantages of The Proposed System

- A web page has been created with separate logins and profiles with good security for students and accountant.
- Student can search his/her results as soon as results are announced in their own profiles and they can check their fee dues and that online from their own logins.
- Student can choose the exam, mark, attendance structure in the way they want that separately by providing the details based on the method they choose.
- An accountant can check status of students who the fee and how much. He can insert the fee details from his login which reflects into student's.

Fig 1. Level 1.0 Admin

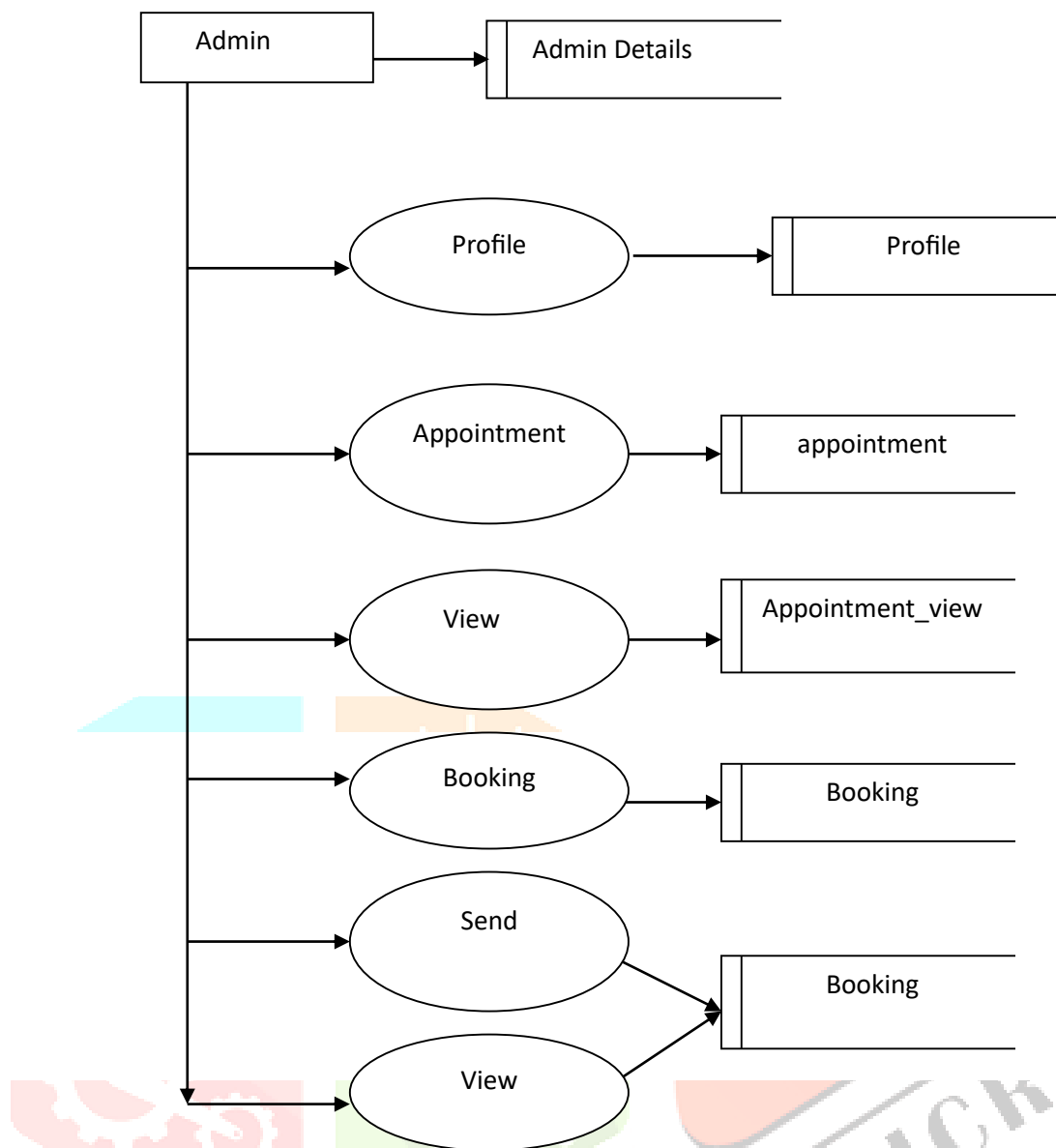


Figure 1 describes the proposed model for online appointment system for an education institution model. Applications: **Computer vision** is the construction of explicit, meaningful descriptions of physical objects from their image. The output of computer vision is a description or an interpretation of structures in 3D scene.

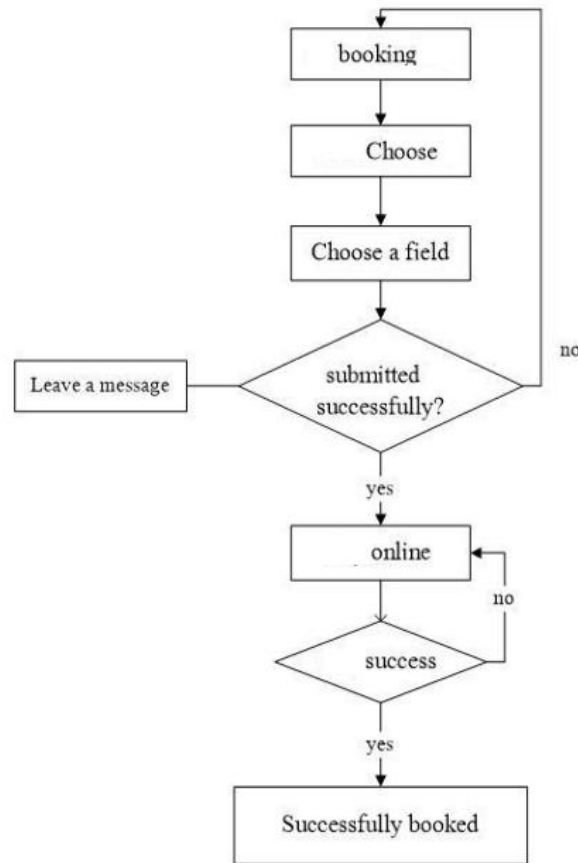
#### Applications of Computer Vision

Here we have listed down some of major domains where Computer Vision is heavily used.

#### Robotics Application

- Localization – Determine robot location automatically
- NavigationObstacles avoidance
- Assembly (peg-in-hole, welding, painting)

Fig 2. System flow diagram



The system flow diagram is one of the graphical representations of the flow of data in a system in software engineering. The diagram consists of several steps that identify where the input is coming to the system and output going out of the system. With the help of the diagram, it is possible to control the event decisions of the system and how data is flowing to the system. Therefore, the system flow diagram is basically a visual representation of data flow, excluding the minor parts and including the major parts of the system in a sequential manner.

It is just like a data flow diagram that includes all the major steps of the flow of data in a system in a systematic and sequential manner and it is required because of its varieties of uses.

- It provides a visual representation of data that non-IT people get benefitted from its understanding part without requiring any special technical skills and it is very easier to show the loops and branches in a diagrammatic way and the conditions of the branches so that it is easily comprehensible for the user than using complex algorithms or pseudo-codes.
- We require a system flow diagram to detect the flaws of a system and to find the solution and then execute the solution in very easy and sequential steps that are major and excluding the minor ones that are less necessary.
- A system flow diagram is also required for large-scale industries that helps in visualizing all the major problems of the system and how to find effective solutions from that. The diagram also helps in understanding the flow of a process in a sequential manner, where the solution is going based on conditions and find the bottlenecks from it.
- We need a system flow diagram for quick communication among programmers, helping in the analysis of all valid inputs into the system, provides efficient coding to denote where and what data is using up for the system, and helps in debugging the data that can cause potential damage to the system.

It is basically designed in the following ways for the programmer as well as the user can easily understand the problems and find out the potential outcomes from it.

- A system flow diagram consists of various steps in a sequential manner and the diagrams consist of various symbols that help in visualizing and understanding the process and data flow in the system. The diagram or the entire process starts with an oval-shaped symbol that depicts the beginning of the process or the starting point. It is basically drawn from the top of the page and continues to the bottom using various symbols.
- The starting point is labeled as Start and labeling of other parts is also done in such a way that it means something for the process and depicts that which is doing what for the system.
- For the next step, the oval-shaped symbol is followed by drawing a rectangle, and labeling is done on the basis of that. Each and every step has its own representation and is used according to it.
- All the data inputs and output of the system are denoted by using a parallelogram and labeling is done.
- Arrows are used for connection between steps, to show the direction of flow of the process. The arrows are necessary to show the direction in which data is flowing and it is for a physical representation of data.
- Diamond symbols are used to represent the branching decisions or the condition in which a previous step depends upon. The next step of the process depends on the decision or the branching factor that is followed from the previous step.
- Rectangular symbols are drawn on the basis of the steps that are followed by decision points, labeling is done according to that and also arrows are used to provide the way in which data is flowing and what are the steps followed by the next step.
- Labeling of flows of the diagram is necessary for correct representation and arrows to help in making decisions and to provide what solutions will be followed after that.
- Finally, an oval-shaped or rounded rectangle is used that is labeled as End that depicts the last step or the end of the whole process.

It provides a lot of benefits to the user as well for the organizations by its visual representations and the overall process in a sequential manner.

## PROPOSED METHODOLOGIES

Software testing is an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest.

Software testing also helps to identify errors, gaps or missing requirements in contrary to the actual requirements. It can be either done manually or using automated tools. Some prefer saying Software testing as a white box and Black Box Testing.

### Unit Testing

The first level of testing is called as unit testing. Here the different modules are tested and the specification produced during design for the modules. Unit testing is essential for verification of the goal and to test the internal logic of the modules. Unit testing is conducted to different modules of the project. Errors were noted down and corrected down immediately and the program clarity was increased. The testing was carried out during the programming stage itself. In this step each module is found to be working satisfactory as regard to be expected out from the module.

### Integration Testing

The second level of testing includes integration testing. It is a systematic testing of constructing structure. At the same time tests are conducted to uncover errors with the interface. It need not to be the case, that software whose modules when run individually showing results will also show perfect results when run as a whole.

The individual modules are tested again and the results are verified. The goal is to see if the modules integrated between the modules. This testing activity can be considered as testing the design and emphasizes on testing modules interaction.

### **Validation Testing**

The next level of testing is validation testing. Here the entire software is tested. The reference document for this process is the requirement and the goal are to see if the software meets its requirements.

The requirement document reflects and determines whether the software functions as the user expected. At culmination of integration testing, software is completely assembled as a package and corrected and a final series of software test validation test begins. The proposed system under construction has been tested by using validation testing and found to be working satisfactory.

Data validation checking is done to see whether the corresponding entries made in different tables are done correctly. Proper validation checks are done in case of insertion and updating of tables, in order to see that no duplication of data has occurred. If any such case arises proper warning message will be displayed. Double configuration is done before the administrator deletes a data in order to get positive results and to see that data have been deleted by accident.

### **Functional Testing**

Functional testing is basically defined as a type of testing that verifies that each function of the software application works in conformance with the requirement and specification. This testing is not concerned with the source code of the application. Each functionality of the software application is tested by providing appropriate test input, expecting the output, and comparing the actual output with the expected output. This testing focuses on checking the user interface, APIs, database, security, client or server application, and functionality of the Application Under Test. Functional testing can be manual or automated.

- Ester does verification of the requirement specification in the software application.
- After analysis, the requirement specification tester will make a plan.
- After planning the tests, the tester will design the test case.
- After designing the test, case tester will make a document of the traceability matrix.
- The tester will execute the test case design.
- Analysis of the coverage to examine the covered testing area of the application.
- Defect management should do to manage defect resolving.

### **System Testing**

System testing is a stage of implementation that aims the assurance that the system works accurately and efficiently before live operation commences. System testing makes logical assumption that all the parts of the system are correct; the goal will be successfully achieved. The testing phase is an important part of software development. It performs a critical role for quality assurance and for ensuring the reliability of the software. It is the process of finding errors and missing operations and also a complete verification to determine whether the objectives are met the user requirements are satisfied. The goal of testing is to cover requirements, design or coding errors programs. Consequently, different levels of testing are employed.

The project “Phishing Site Detection Using Machine Learning” has done the system testing. All modules are combined together to form the entire system and the errors occurred are cleared subsequently.



## White box testing

**White box testing** is known as Clear Box testing, code-based testing, structural testing, extensive testing, and glass box testing, transparent box testing. It is a software testing method in which the internal structure/design/ implementation tested known to the tester. The white box testing needs the analysis of the internal structure of the component or system.

## Black box testing

**It is also known as behavioral testing. In this testing, the internal structure/ design/ implementation not known to the tester. This type of testing is functional testing. Why we called this type of testing is black-box testing, in this testing tester, can't see the internal code. For example, A tester without the knowledge of the internal structures of a website tests the web pages by using the web browser providing input and verifying the output against the expected outcome.**

## CONCLUSION:

We surveyed and researched about variety of tools which can be used for better interaction and efficiency of developing a web-app. Analyzed different learning management system and another video conferencing tool such a used them and came up on certain conclusion. Doing so, we realized the open-sourcing power that is enhanced over the years due to wide community support. Integrating it with learning management system making a feature rich application. Through this report designing web-application combining video conferencing using a powerful tool content management system will make it easier for university/school students to avoid the hassle mentioned in the above problem statement in the report. Both the areas provides more flexibility in distant e-learning system To achieve a more polished functionality there is more to be done and thanks to the open-source community there are chances for growth of such web application. It helps in availing the online experts. Students can easily get expert teachers for each subject and also they can jump their limitations like one who solved or completed their standard or those who want to study higher they can also increase their level. they can excess any courses like if the student completed the one subject of his standard they can go through with higher section. It helps in availing the online experts. Best source and quick approaches in a single mouse click. Extra curriculum like exam quizzes and any important dates also will inform with the help of the event window. unlimited sources are there they can avail as much as they want also, they can save their time

## FUTURE ENHANCEMENTS

The study on the impact of the tutoring and literacy across the world concludes that although colorful studies have been carried out, in the case of developing countries, suitable pedagogy and platform for different class situations of advanced secondary, middle and primary education need to be explored further. Internet bandwidth is fairly low with lower access points, and data packages are expensive in comparison to the income of the people in numerous developing countries, therefore making availability and affordability shy. Policy-position intervention is needed ameliorate this situation. Further disquisition and investigation on effective pedagogy for online tutoring and literacy is an area for exploration. Need for developing tools for authentic assessments and timely feedback is set up to be another area of study. Our project "E-learning Online Education App" has developed with different technologies and platforms. The project we have developed will be very useful for students as well as for educators, as we have included android app called Learning for students. The affordability and availability for all learners of varied profitable background is linked as a challenge, for which the educational tools inventor could concentrate on customization. The policy position intervention is also vital. Education system across the world including Bhutan needs to invest on the professional development of preceptors, especially on ICT and effective pedagogy, considering the present script. Making online tutoring creative, innovative and interactive through stoner friendly tools is the other area of exploration and development. This would help and prepare the education system for similar misgivings in the future.

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