

A Survey on Design and Development of Workplace Monitoring System for Laboratories

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ABSTRACT

More effort has focused on integrating instructional technologies into classrooms than has focused on assessing the impact of these technologies on teaching and learning performance. To evaluate whether computer technology is beneficial to the teaching and learning process requires that we first develop a system to understand what students in a classroom do when there are computers in front of them. We identify the requirements for such a system and then describe a prototype system that uses off-the-shelf spyware as its main component. We report findings from a pilot study we conducted in a computer-equipped composition classroom. Our results show that while the monitoring system captured the necessary data, the use of an off-the-shelf tool did not completely satisfy all of our system requirements. Additional customization work on keystroke recording and password protection is necessary to effectively monitor real-time student in-class activities.

Keywords : Personal Digital Assistant

I. INTRODUCTION

Classrooms equipped with computers and Internet access are becoming increasingly common. Smartboards, Personal Digital Assistants (PDAs), and networked computers are being used in lecture presentations, for note taking, and in stimulating collaboration. New computer and network technologies introduced into the classroom are altering both teaching and learning experiences. With the goal of creating advanced classroom environments, more educators use computer-equipped classrooms or assume that students will bring their own computing devices to class. While much effort has focused on introducing computer technologies into classrooms, not enough effort has been spent on assessing the impact of having computers in classrooms. One important first question to ask is whether these

technologies help instructors teach more effectively and whether the technology helps students in their learning process. An equally important second question is whether there are any detrimental impacts of so much technology use. There are certainly different approaches to evaluate the impacts and answer these questions. Traditional studies involve surveys, self-report questionnaires, classroom observation, and retention testing. However, these studies are prone to subjectivity and do not measure the real-time cognitive interaction between students and computers during a classroom lecture. This fact motivates us to design a classroom monitoring system and apply it in real classes to evaluate the in-depth impacts of computer-equipped classrooms. We believe that the analysis of data collected by such a system will provide better insight into the true impacts of classroom technologies. this system will give a huge

satisfaction to customer as well as reduces headache of corporation and citizens.

II. OBJECTIVES

- To trace and record the purpose and time of usage of machine by student.
- To remove log book record completely.
- Monitoring the workplace activities with the system and on the system using cameras.
- To trace the lab utilization and generate report of lab.

III. LITERRATURE SURVEY

- The student data will stored in a database where it will be view and manage by the administrator, also another attributes added like news updates and view student feedback again system will be monitor.
- A system to understand what students in a classroom do when there are computers in front of them. We identify the requirements for such a system and then describe a prototype system that uses off-the-shelf spyware as its main component.
- The application makes use socket programming for communication between the teacher's computer and all the students' computers.
- It meets the individual needs of the experiment teaching well by integrating the mobile teaching mode and the network teaching mode. At the same time experiment processes can be monitored in C-LIMS via the workflow mechanism.
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IV. PROPOSED WORK

The main objective of the Project on Laboratory Management System is to manage and record the details from Student and View. It manages all the information about Student, Complete Information, View, Student.

This project mainly focuses on recording the purpose and time of usage of machine and Detection of unwanted activities of student on the system. After deploying this project administrator will be able to keep track on activities done by students on the system. We plan to develop this project in below mentioned modules.

The Desktop app will contain following modules:

Module 1: Student need to login with the provided id/ roll no., password and purpose work to use to system. This module allows student to enter their purpose work as well as new tasks or other details provided by ADMIN.

Module 2: Admin creates all authenticated logins with respective password to enter this module for student. Admin helps to authenticate the report of lab and cameras also handle adding the new students.

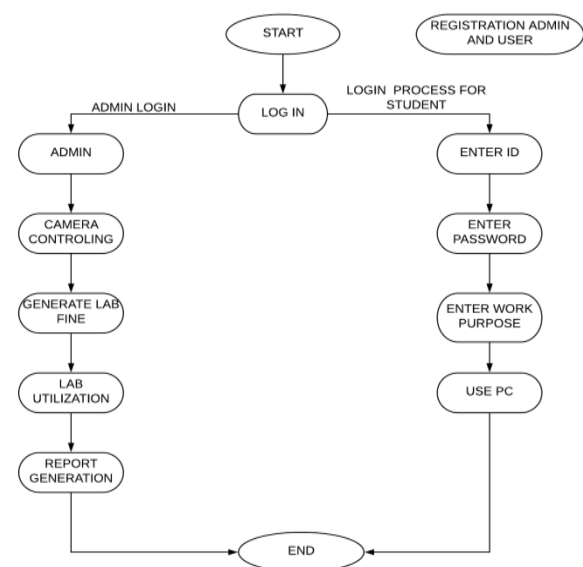


Fig 4.1 Flowchart

A. Flow of the system

In the first module will be to firstly add the students in the database in which the data is being matched with the database and the students details is being inserted into the system and hence using this module . The new guest can also be able to inserted by the admin module in which the data will be made available.

Now the second module comes into picture when the system boots up the app gets autostarted during the boot time and thus accordingly a fullscreen window is being displayed which will be used to enter the credentials to login the system hence now the data once verified he will be logged into the system and made the availability to get the monitoring and camera proctor of the system .

The timer as soon as the student logs into the system then the users data is being monitored whatsoever he/she does in the system and the whole information is being updated into the databases.

B. Functional Modules

There are only 2 modules being implemented here:

1) Developing the admin module to make student module operational:

On coming to the admin we first need to make the student entry point and so we build the database for the students , admin and the reports ,guests . After making the database first add admins then the students and then finally the guests. Since we have to make a report we need first to record and monitor the students and guest that persist on the system.

2) The Student module to operate the system:

Now the student or guest have to now enetr the credentials in the system on the window and as soon

as the credentials gets matched then the student monitoring and proctoring starts its login time and date are updated in the database and using these data we are able to generate reports of the data in the admin module.

V. CONCLUSION

The Workplace Monitoring system application that will be able to proctor the activities of the student right after they are logged in the system.

This will make the admin know each and every activity of the student and a report of his/her login and logout and what he/she did on system will be generated and sent to the admin.

Application will also be able to proctor the lab using camera system installed in the laboratory.