

Lab Administration System Using JDBC ODBC

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Abstract— Lab management system is developed to overcome the problem faced by the lab managing staff. To Monitor a LAN, the monitoring server is typically connected to a monitor port on the switch. If multiple Switches are used in an installation, the monitoring Server may need a connection to all of them. That connection can either be a physical cable, or if your network switches support it, a LAN specifically configured for monitoring traffic. LAN monitoring project aims to develop various network utilities which are required to effectively monitor a LAN network.

Keywords: LAN, Server, Client, Connectivity

I. INTRODUCTION

A. Background

In the present situation the number of system are present in lab and they are in LAN also but in every lab there is no such client server connectivity present. On such system students can complete their given task and they can also do some other work which is not related to their given task. This is the main problem of the current lab management system. The other problem of the present existing lab management is that the lecturer cannot supervise the student activities. The existing system presents an introduction of an embedded processor-based laboratory environment monitor system and its design for hardware and software. This system aims at completing monitoring a variety of real-time data. This system achieves the intelligent management of laboratory. By wired or wireless means, the laboratory monitoring system can communicate with PC. To Monitor a LAN, the monitoring server is typically connected to a monitor port on the switch. If multiple Switches are used in an installation, the monitoring Server may need a connection to all of them.

B. Aim & Objective

Our project aim is to monitor the activities of students by the lecturer and to maintain the control and discipline while student's practical performance.

- To provide remote access to labs in various disciplines of computer engineering.
- To provide a complete learning management system around labs where students can avail the various tools for learning including video lectures, practical performance, etc. with rules and regulation under vigilance of faculty.

C. Motivation

The existing system presents an introduction of an embedded processor-based laboratory environment monitor system and its design for hardware and software. This system aims at completing monitoring a variety of real-time data. This system achieves the intelligent management of laboratory.

We implemented some features in it and developed a new system. This system will include some more features like from system the student will not be able to retrieve data through Pen Drives, they will not be able to access any data.

II. LITERATURE SURVEY

A. Related Work

- 1) This is based on sensor in which monitoring is done through embedded sensor in system. But we are implementing the system on LAN without using sensor. We are including the concept of message sending, command giving, etc.
- 2) This system presents an introduction of an embedded processor-based laboratory environment monitor system and its design for hardware and software. This system aims at completing monitoring a variety of real-time data. This system achieves the intelligent management of laboratory. By wired or wireless means, the laboratory monitoring system can communicate with PC.
- 3) Computer labs can be found in libraries, schools, government buildings, science labs, community centers, companies with IT departments that requires such a place for their employees to do their jobs, and research centers. Printers, scanners, and other peripherals may augment the lab setup. But we are making this system just for college use.
- 4) The problems faced in computer laboratories is lacking consciousness for service and standardized management, lacking means for executing and maintaining, no standardized process, no record for software and hardware configuration and change as well, and also changing configuration randomly. Our project will help in reducing these problems.

III. PROBLEM STATEMENT

It is observed that students access a lot more functions/software of the system (computer) other than the one which is required for the practical performance in the practical slot. It was also observed that it is difficult for the faculty to supervise each and every student all the time.

IV. System

A. Approach

As technology becomes more and more integral to everything we do, it can sometimes distract us from the things that matter most to us. We believe technology should improve life, not distract from it. Our project is basically a php application which is can reduce these problem interface for performing practical to the student and it will help lecturers to monitor individual student's activity on their system. On the basis of that performance the lecturer can

give marks on every practical and can view the performed practical of the individual. This system is developed to overcome the existing problem. In this system there is Server and Client connected with each other in the LAN of which it will provide the good interface for performing practical to the student and it will

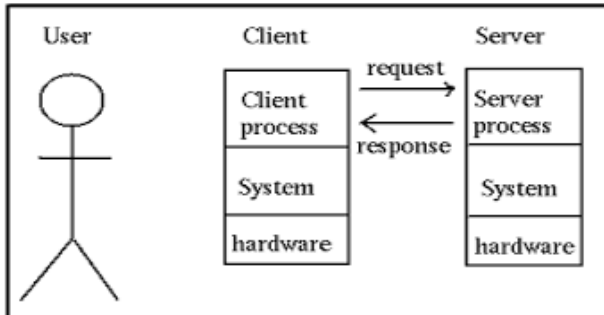


Fig 1: Flow Chart

B. Architecture

CONNECTIVITY DIAGRAM

The below fig-2 is showing the connectivity sequence diagram. In this system there is one user handling client system which is sending request to Server through Client Process and Server responding it through Server Process. Both the system has their own software and hardware.

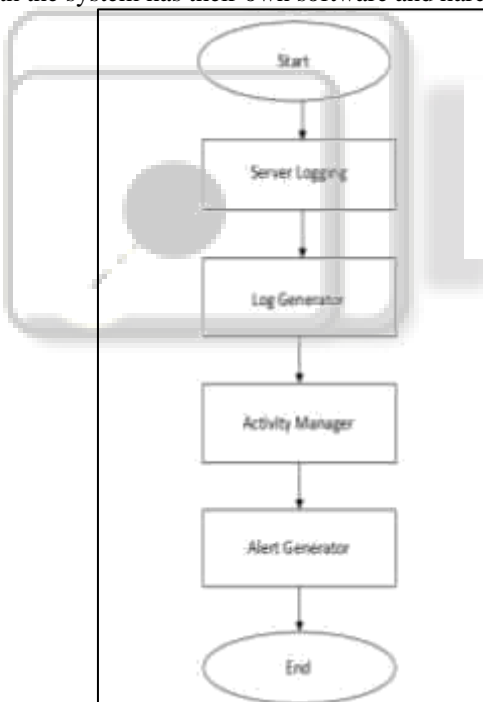


Fig 2: Connectivity Diagram

C. Basic Steps

- Step 1: Server will start listening.
- Step 2: Client will send request.
- Step 3: Client will get connected with Server.
- Step 4: Client will send its detail to Server.
- Step 5: Details will be received by the Server.
- Step 6: Client will perform practical and will send it to Server.
- Step 7: Server will see the details of Client.
- Step 8: Server will give some command to Client like shutdown, logout, etc.

Step 9: Connection will be terminated Scenarios

D. Scenario

1) Normal Scenario

In normal scenario the Server will start listening request from Client. For establishing connection the Client will send connection request to the Server. Once connection gets established Client can send its detail, perform practical also can be send to the Server, etc.

E. Project Plan

1) Analysis:

In the existing system the system are in LAN network and they also have Client-Server Architecture but there is no such system made for monitoring the Client's activity.

2) Literature Review:

This system presents and introduction of an embedded processor-based laboratory environment monitor system and its design for hardware and software. This system aims at complete monitoring system.

3) Model:

The below fig shows the model of project

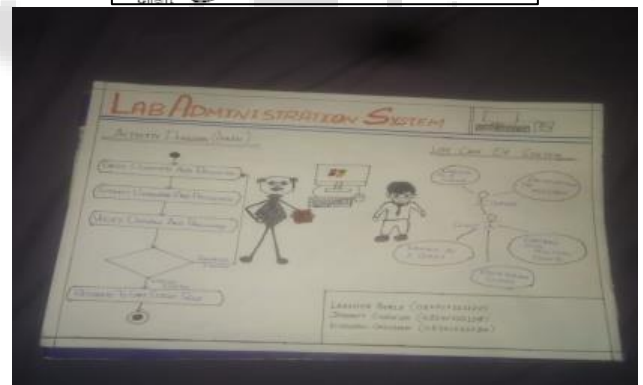
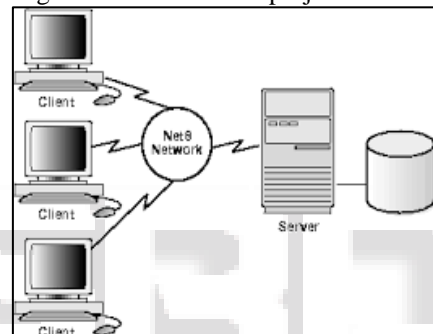


Fig 3: Basic Model of Application

4) Methodology:

We firstly design and code for Client Side for connectivity with the Server. After this we will design and code for Server for activation and responding to the request to the Client. After this we will code for connectivity between them.

5) Testing:

In this the code written will be tested. The execution of the system will also be tested in sequential form.

V. OUTPUT

A. Server site:

This is the general startup of application i.e digital wellbeing. There are some buttons and some text boxes which contain some information about the next step.

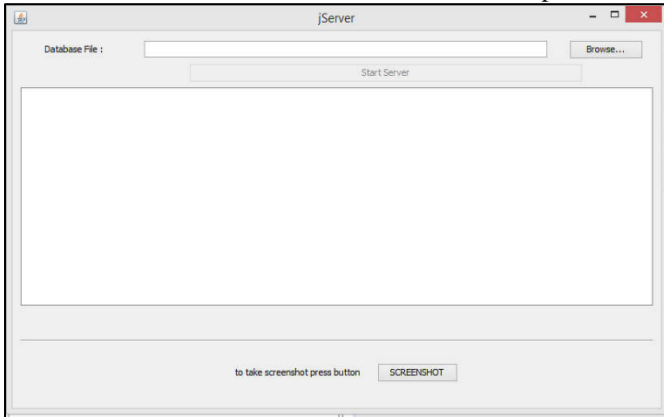


Fig 4: Client site interface

B. Client site:

This is Application startup in which we can see the options such as set tier and lock by which parent can easily set the timer and locked.

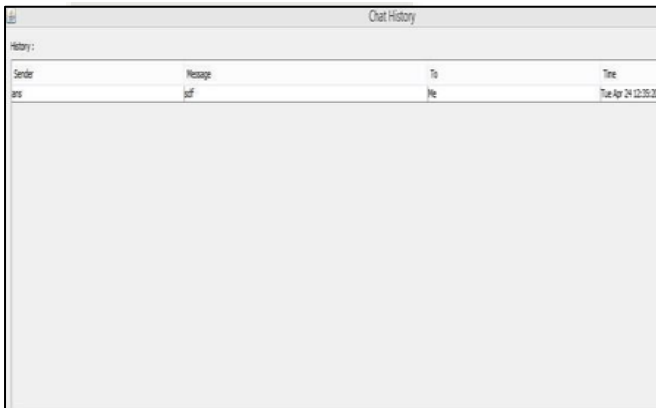


Fig 5: Server site interface

C. Working Demo:

After connecting student with faculty, the faculty will have all details of student saved on their mobile. The website clearly demonstrate the current usage and accordingly parent can intervene it. It will also show the details related to the students phone. The faculty can also see the activity of child by clicking on various buttons present in the window.

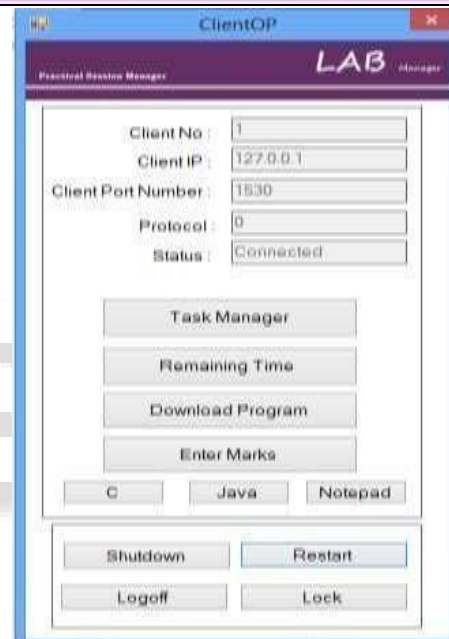


Fig 10: Working of lab administration system

VI. RESULT

The present system is developed on Local Host. This system is presently implemented on Local Host but in future it can be modified and can be implemented on LAN network

VII. APPLICATION

In college computer labs it is used for monitoring the student activity (client) on their system by lecturer through server system. They can see their practical performance, login time, can give marks on the basis of their performance, etc.

In firms or company it is used by manager for monitoring the staffs work and for accessing the necessary data. Manager can monitor his employees work by sitting in his cabin. He can give any command to his employee at any time.

VIII. CONCLUSION

Children are shaped by the things they are exposed to. This paper provides a conclusive solution to provide safer the youth of nation and help countries to build better future generations The proposed system is presently running on Local Host. Which means that the Server and Client both are running on same system. They can perform their task on the same system itself but simultaneously.

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