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Time Stamp Based Printing System

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Abstract:- Time stamp based printing, a fully automated in-house Print Management System devised and created as a state of the art, web-based centralized printing service that allows users to give print jobs from around the globe to Any Time Print(ATP)stations at the Institute .The features allows the users to manage accounts and usage history ,provides in house, cheaper printing facility compared to alternatives available in the market, provides color and B/W printing options, facilitates duplex printing option to save paper and cost and driven with authentication integrated with Active Directory for security.

Keywords:- *Timestamp, Printer, internet.*

I. INTRODUCTION

In today's world where the time is so much important to everyone and doing their work on time has become a priority in everyone's life. The same is with the students, it's very important for them to do their work on time and get it graded or verified by their teacher on time so they can maximum grade which they deserve for their work. With the computer in use everywhere and digitization in trend, now-a-days even the colleges have also made that facility available to students to do their work on computer and submit a hard copy to the teachers that is to print their work. Printers have made the work easy for everyone, because you don't need to write the stuff, you only need to make a soft copy for your work and give a command to your printer to print the stuff. But what happens is when a single printer is used by a majority of people, it can't be used by everyone at single time, this is where the problem lies. With a lab having maximum strength of 40 students, with a single printer and everyone need to take their print sometimes it becomes very painful job as each student has to wait for its turn to print his or her document.

The other problems which are faced by the student is unavailability of the internet. Not many colleges have a proper LAN network present in their labs so each computer is not connected to the printer. So in this case the students upload their work to some storage which is online download the file on the system to which the printer is connected and take the print, the use of pen drives or other external storage devices is restricted in colleges, Which make it compulsory for the students to make use of internet while taking their print, but due to unavailability of internet sometimes students can't take their print. The other issue with this is the confidentially problem, what happens is students download their file on the computer and forget to delete it, which are used by the other students also. What teachers expect from their students is each one doing its own work and showing it to them,but due to availability of the file to students some of the them don't do their work and still have a file with them.

A. Literature And Review

With work load on the students and time being the major aspect, even if the students finish their work on time they face some problem while taking their prints through the printing facility made available to them by the college, and the confidentially playing a major role to the teachers the current available system fails to keep up sometimes. There is no specific name given to any printing facility till the date but we can differentiate them through their way of working.

In a very simple way of printing your document is to work on the machine that is connected to a printer. It this way you can use your printer as a shared resource or you can have printer connected to each machine.

B. Using your printer as a shared resource

You can use your printer as a shared resource, but to do this you need to have LAN network which is very efficient and reliable. Even using this solution solves our problem but the thing is setting up a LAN network is a quite complex job and it also takes some effort to maintain that network. And when a single printer is used by a large no. of people you have to work with a queue structure where you need to wait for your turn to take the print outs. What we actually do is we create LAN for every lab and then interconnect each lab, by doing this we can print our document through any computer present on our network. This way is actually is feasible to implement, but the small organizations or colleges avoid the complexity of having a strong LAN network because the cost to build a reliable and efficient LAN is more and the maintenance cost is also more when wires comes in action.

C. Making use of timestamp for transaction

The basic containers for data are called objects. Each object has a type, which defines a set of possible states and a set of primitive operations that provide the (only) means to create and manipulate objects of that type. Transactions

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operate on objects through a sequence of operation executions, each consisting of a paired invocation and response. Each transaction originates at a unique home site. A site emitting an invocation on behalf of a transaction is known as a calling site; the recipient site is a culled site. Similarly, an object issuing an invocation is a calling object, and the target of an invocation is a culled object. A transaction is said to have visited called and calling objects and sites. When a calling object issues an invocative, execution suspends within that object and passes to the called object. Execution resumes at the call- ing object when the response is issued by the called ob- ject. Thus, a transaction is active at only one object at a time. Each object has a clock, which is used to generate timestamps. Clocks in a distributed system are subject to the following constraints: 1) Each object's clock generates successively increasing timestamps. 2) When a message is sent from one object to another, the time at which it is received (by the receiver's clock) is later than the time at which it was sent (by the sender's clock)

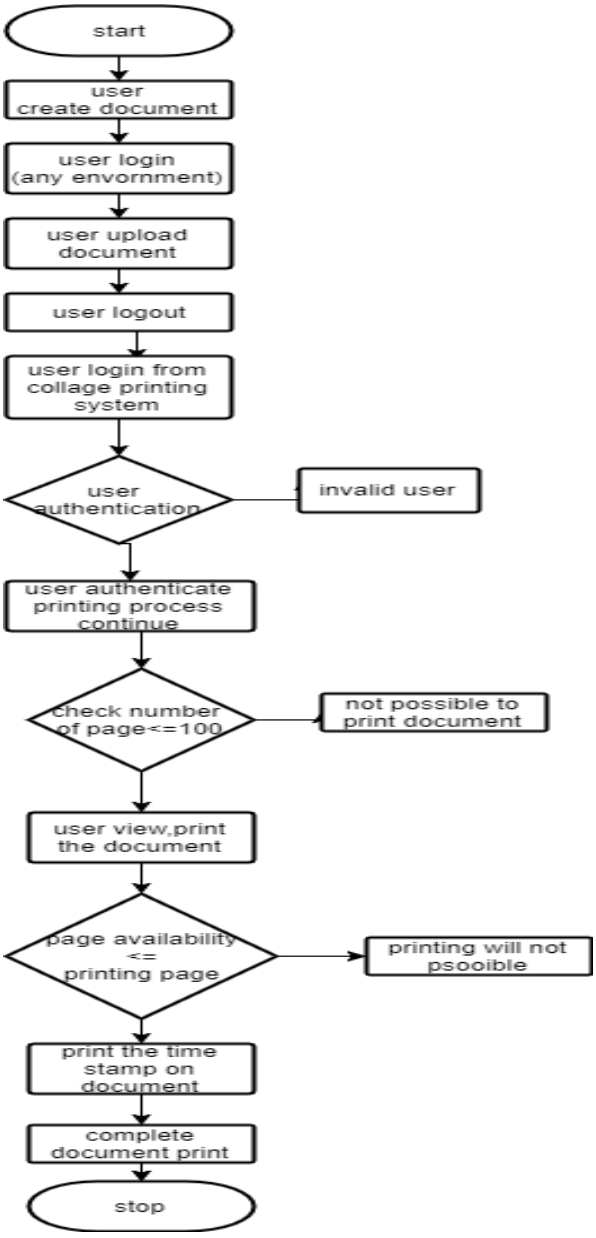
II. SOLUTION WE ARE PROVIDING

In the above paragraph we have discussed about the techniques that we can use to print our document, but each of technique has it own drawback when we consider a situation where there are large no. of people who are trying to take print from a single printer (in this case we are considering the college environment).

We have proposed a system that overcomes the disadvantages of the previous available systems. We have tried to remove the complexity of the LAN and also reduce no. of printers. Our system is based on client server architecture where the client can upload his or her work to a server which is connected to printer through a website. We have made our system secure as we are making use of login system. Each student that is eligible to use the system will be given a login id and password through which he or she will login to the website and upload its file there. The main advantage is the user can upload its file to the server from anywhere. After uploading the file the student/ user need to go easy-print where he needs to authenticate itself again, after the authentication student/user is now be able to either print, view or delete the file. While the user prints his file our system keeps a track no. of pages the user has printed, it also print a timestamp on the user document of the upload time. So through this system we trying to eliminate the complexity of the LAN and also reduce the use of internet as the user only needs to upload its document once one the server.

III. BASIC WORKING

- User login(client machine)
- Browsing the file and uploading the file
- Logout
- User login (server side)
- User can either print , view , delete the uploaded document
- Logout.



IV. CONCLUSION

We have proposed a system that overcomes the disadvantages of the previous available systems. We have tried to remove the complexity of the LAN and also reduce no. of printers. Our system is based on client server architecture where the client can upload his or her work to a server which is connected to printer through a website. We have made our system secure as we are making use of login system.

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