



Expert Finding System

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ABSTRACT

Current education system turning to the digital learning technique. E-learning is one of the most widely used methods for the education. E-learning gives experience as individual learning at any time as well as anywhere, so user get more interest, flexibility at learning. In this paper we have introduced e-training platform which has divided into two important part; first part is learning data has to be secured, for securing data we has used file encryption and decryption technique, and second part comes use of data mining techniques and concepts for huge data storage.

Keywords: *Expert finding, expert location, expertise, commercial off the shelf (COTS), knowledge management*

INTRODUCTION:

Today's education system has become more improved and developed because of internet. Learning is based on information or knowledge and communication technologies. The E-learning is the latest technology of learning which is getting much more popular in academicians. E-learning technology has multiple data formats which make fluent and flexible earning to learner. Today's word there is no end for learning either it may for academicians or professionals at this situation E-learning may play effective role for an organization. This E-learning platform comes up with huge data and training material.

Course material are having in the form of textual data like journals, books etc. and in the form of visualizations like mp4 videos. To make more

convenient to learner it has communication media with the respective course guide, or faculty, due to commutation between learner and faculty e-learning platform provides virtual classroom to each individual learner at his own place, on his own convenient time. E-learning can able to reduce learning costs, motivate employees, improve flexibility of course delivery, it expands the capabilities of the business, and it make learning available anytime, anywhere.

LITRATURE REVIEW:

1. Online Educational System (e- learning)

Author: Dr. P. Nagarajan, Dr. G. Wiselin Jiji

Description: The intricate construction of online educational systems lies within three principal activities: Design, Implementation and proper Post-implementation Assessment. There is not enough knowledge or experience in those aspects. Efficient execution of these three major activities necessitates the use of design and educational models to achieve the cost and time efficiency, as well as high academic quality. Utilization of online educational systems would benefit from a structured approach to design, implementation, and student's assessment. We propose a general formulation of model as well as a framework for finding such patterns, so that it can improve the online educational systems for both teachers and students – allowing for more accurate assessment and more effective evaluation of the learning process.

2. Applying Data Mining Techniques to e-Learning Problems

Author: Félix Castro^{1, 2}, Alfredo Vellido¹, Àngela Nebot¹, and Francisco Mugica³

Description: This chapter aims to provide an up-to-date snapshot of the current state of research and applications of Data Mining methods in e-learning. The cross-fertilization of both areas is still in its infancy, and even academic references are scarce on the ground, although some leading education-related publications are already beginning to pay attention to this new field. In order to offer a reasonable organization of the available bibliographic information according to different criteria, firstly, and from the Data Mining practitioner point of view, references are organized according to the type of modeling techniques used, which include: Neural Networks, Genetic Algorithms, Clustering and Visualization Methods, Fuzzy Logic, Intelligent agents, and Inductive Reasoning, amongst others. From the same point of view, the information is organized according to the type of Data Mining problem dealt with: clustering, classification, prediction, etc. Finally, from the standpoint of the e-learning practitioner, we provide a taxonomy of e-learning problems to which Data Mining techniques have been applied, including, for instance: Students' classification based on their learning performance; detection of irregular learning behaviours; e-learning system navigation and interaction optimization; clustering according to similar e-learning system usage; and systems' adaptability to students' requirements and capacities.

3. The roles of models in Artificial Intelligence and Education research: a prospective view

Author: Michael J. Baker

Description: In this paper I speculate on the near future of research in Artificial Intelligence and Education (AIED), on the basis of three uses of models of educational processes: models as scientific tools, models as components of educational artefacts, and models as bases for design of educational artefacts. In terms of the first role, I claim that the recent shift towards studying collaborative learning situations needs to be accompanied by an evolution of the types of theories and models that are used, beyond computational models of individual cognition. In terms of the second role, I propose that in order to integrate computer-based learning systems into

schools, we need to 'open up' the curriculum to educational technology, 'open up' educational technologies to actors in educational systems and 'open up' those actors to the technology (i.e. by training them). In terms of the third role, I propose that models can be bases for design of educational technologies by providing design methodologies and system components, or by constraining the range of tools that are available for learners. In conclusion I propose that a defining characteristic of AIED research is that it is, or should be, concerned with all three roles of models, to a greater or lesser extent in each case.

4. Is e-Learning the Solution for Individual Learning?

Author: Djamshid Tavangarian, Markus E. Leypold, Kristin Nölting, Marc Röser, Denny Voigt University of Rostock, Germany

Description:

Despite the fact that e-Learning exists for a relatively long time, it is still in its infancy. Current e-Learning systems on the market are limited to technical gadgets and organizational aspects of teaching, instead of supporting the learning. As a result the learner has become deindividualized and demoted to a noncritical homogenous user. One way out of this drawback is the creation of individual e-Learning materials. For this purpose a flexible multidimensional data model and the generation of individual content are the solution. It is necessary to enable the interaction between the learners and the content in e-Learning systems in the same manner.

Scope and Objectives:

Scope:

Main scope of our system is to provide study material to student, take test time to time, help student in their difficulties. Improve student knowledge and student can find whether he is perfect in the particular course by getting the average score.

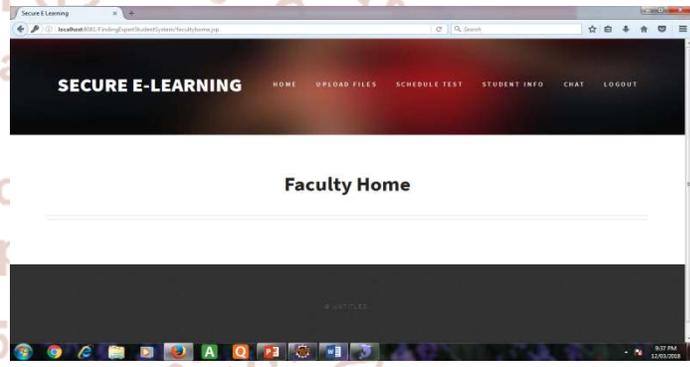
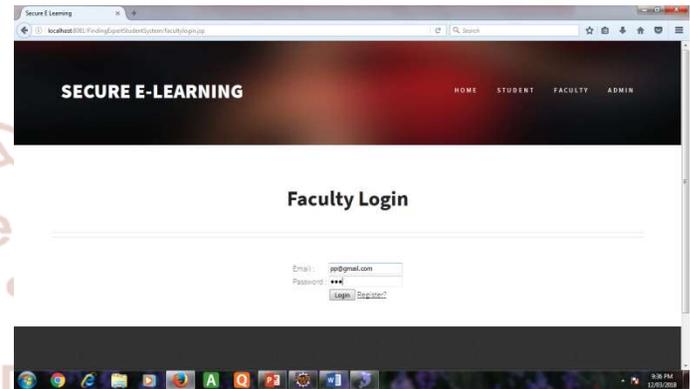
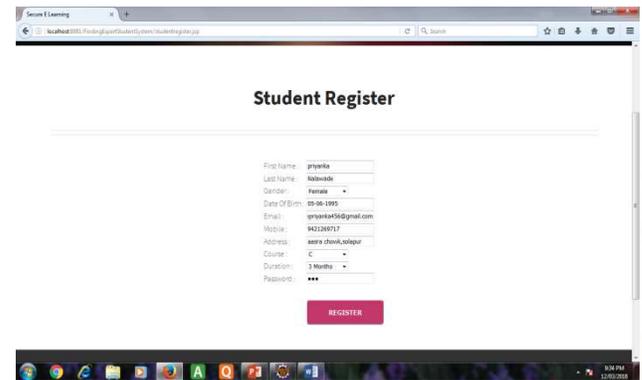
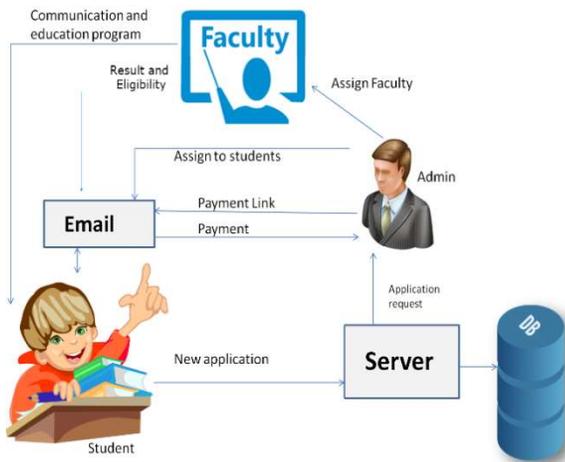
Objectives:

- To provide study material
- To upload file of student courses
- To analyze positive and negative sentiment analysis
- To provide result with the average score and eligibility of student.

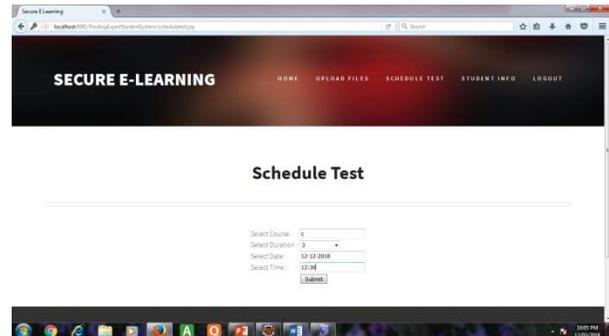
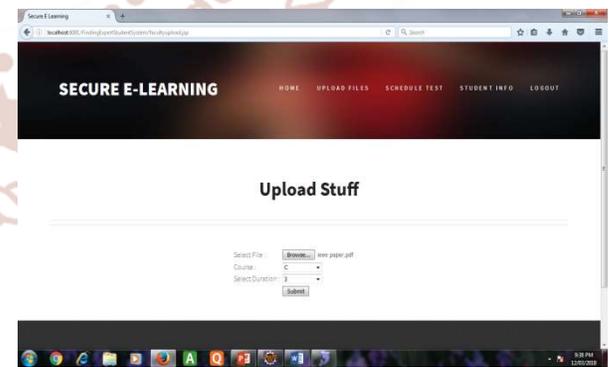
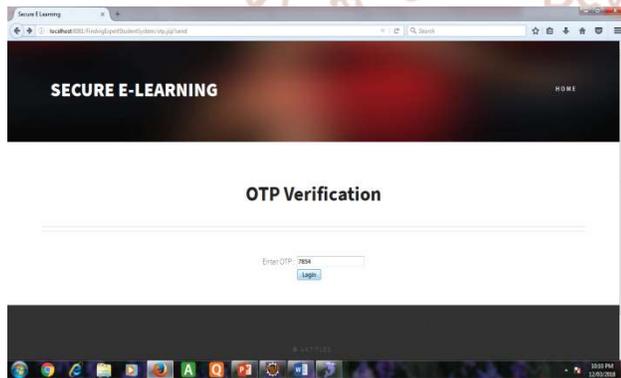
Proposed work:

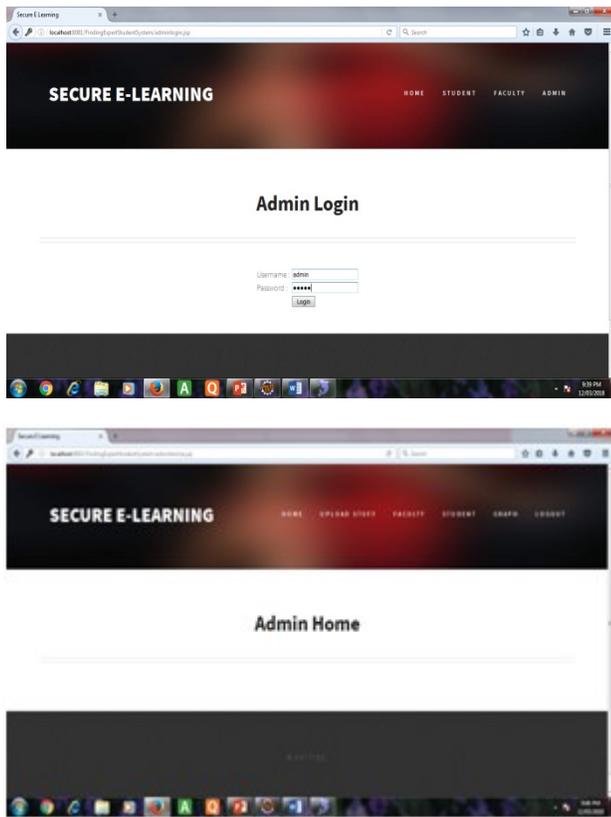
Earlier the system was manual, student need to join classes or course. The time was not flexible, sometimes teacher doesn't know about the answers of student question, the technology was not in use.

We have introduced e-learning platform which has divided into two important part; first part is learning data has to be secured, for securing data we has used file encryption and decryption technique, and second part comes use of data mining techniques and concepts for huge data storage.



Snapshots:





2. System Design:

In this system design phase we design the system which is easily understood for end user i.e. user friendly.

We design some UML diagrams and data flow diagram to understand the system flow and system module and sequence of execution.

3. Implementation:

In implementation phase of our project we have implemented various module required of successfully getting expected outcome at the different module levels.

With inputs from system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.

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4. Testing:

The different test cases are performed to test whether the project module are giving expected outcome in assumed time.

All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

5. Deployment of System:

Once the functional and non-functional testing is done, the product is deployed in the customer environment or released into the market.

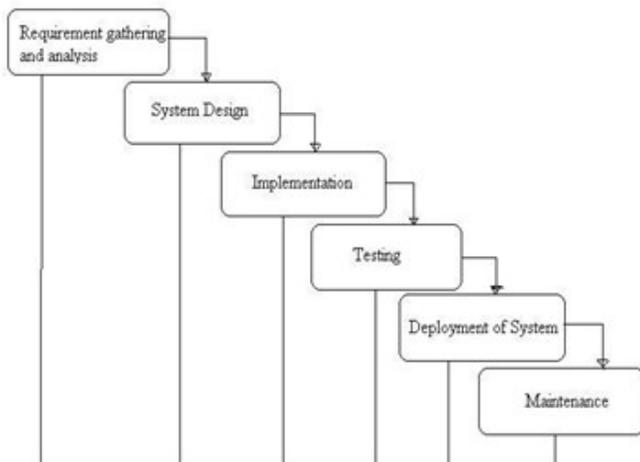
6. Maintenance:

There are some issues which come up in the client environment. To fix those issues patches are released.

Methodology to be used:

We are using waterfall model for our project.

General Overview of "Waterfall Model"



1. Requirement gathering and analysis:

In this step of waterfall we identify what are various requirements are need for our project such are software and hardware required, database, and interfaces.

Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

All these phases are cascaded to each other in which progress is seen as flowing steadily downwards like a waterfall through the phases. The next phase is started only after the defined set of goals are achieved for previous phase and it is signed off, so the name "Waterfall Model". In this model phases do not overlap.

Work to be carried out:

A. Preliminary Investigation

Today's education system has become more improved and developed because of internet. Learning is based on information or knowledge and communication technologies. The E-learning is the latest technology of learning which is getting much more popular in academicians. E-learning technology has multiple data formats which make fluent and flexible learning to learner.

So to provide student better, efficient facility and if any difficulty faced by students then he/ she will directly chat with their respective teacher. Provide all study material related to registered course.

B. Feasibility Study

Technical Feasibility

This project is technically feasible. The primary technical requirement includes the availability of Windows xp or higher version of operating systems installed in the network. Apache Tomcat Server is already installed. The system can also be developed if the new technology is acquired. Thus, through all the ends technical feasibility was met.

The tools that we were requiring were all available to us they are:-

Hardware Requirements

1. System : Intel I3 Processor and above.
2. Hard Disk : 20 GB.
3. Monitor : 15 VGA Colour.
4. Ram : 4 GB.

Software Requirements

1. Operating system : Windows 7 and above.
2. Coding Language : Java
3. Database : MYSQL
4. IDE : Eclipse
5. Server : Apache Tomcat

Operational Feasibility

To provide student better, efficient facility and if any difficulty faced by students then he/ she will Directly chat with their respective teacher. Provide all study material related to registered course.

C. Determination of System Requirement

Determination of system requirement means studying the adjacent system in order to collect the details regarding the way it captures data, processes the data, produces the output. I used following techniques for identifying system requirements:

- Reviewing organization documents
- Onsite observations
- Conducting interviews

Reviewing Organization Documents

I first learnt about the user affected by the project, I got to know how the user were directly involved/associated with the application. Annual manuals and reports were of great help to me.

Onsite Observations

It is a process of recognizing and observing people, objects and their occurrence to obtain the information. The major objective of the Onsite Observation is to get as close as possible to real system being studied.

Here, I observed the activities of the system directly. The physical layout of the current system along with the location & movement of user was analysed. In this way, the information about the present workflow, objects and people was gathered.

This helped me to understand various procedures & processes, which were to be developed in the new system.

Conducting Interviews

Written documents and onsite observation just tell that how the system should operate. They do not include enough details to allow a decision to be made about the merits of system proposal, nor do they present user views about the current system.

I conducted interviews of the staff and student, which were directly involved with the application. Also the regular users of the application were interviewed. Based on their viewpoints, crystal clear system requirements were jolted down. These interviews were of great help.

Conclusion (and Future Work)

E-learning course offerings are now plentiful, and many new e-learning platforms and systems have been developed and implemented with varying degrees of success. These systems generate an exponentially increasing amount of data, and much of this information has the potential to become new knowledge to improve all instances of e-learning. Data mining processes should enable the extraction of this knowledge. Now implementing e-learning web interface can help to design courses more effectively, detect anomalies, inspire and guide further research, and help learners use resources more efficiently. The long term objective is that to create fully featured learning system for the learning environment.

Future Work:

By enhancing our system as well as adding new features in our system. On chat box system we can share screenshots as well as emoji's Right now in our system student give MCQ test but in future we develop question answering system.

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