A Web Mining Approach for Personalized E-Learning System

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Abstract - The Aim of developing e-Learning tool is to create a virtual classroom which enables REMOTE LEARNING and also inculcates the ability in Students to learn by themselves. The students course Content Authors, coordinators, Industry/ Knowledge Experts and admin can login using their respective password, username and role. Upon signing in and subsequent Log in, the students can enroll in the course of their selection and exposed to the course content. They will be taken through the course chapter wise and they will be required to take Quizzes, Tests, and Assignment etc. The proposed eLearning Tool offers the features of video conferencing, chat session, Q and A forum through which Students can clarify their doubts and gain knowledge. They can also interact with knowledge experts and attend webinars with ease. The proposed e-learning engine also provide a user-friendly environment strewn with technologies. The implementation of this project is by ASP.Net MVC 5.0, Web API 2.0, and Entity Framework Code First to the Existing Database. This enables Client-Server Deployment, Web Hosting of the tool as well as Device based Deployment in one single implementation.

Indexed Terms: e-Learning tool, students, password, and engine.

I. INTRODUCTION

To create an e-learning engine using visual studio 2017 Model-View-Controller 5(MVC 5). It comprises all form of technologies supporting learning and teaching. The access options include both Internet and Intranet which achieves flexibility. It includes maintenance of the records of the student and Admin details. The main purpose of this project is to make the students to learn by themselves anywhere and to reduce the work burden of the professor.

The existing system which we have is the model. Every student has his/her login and a profile using which they provide feedback to every subject. It also provides a platform for sharing study materials to the students in form of ppts, pdfs etc by the faculties. Students can also take tests concerned to placement using valtace.

Our project is very useful for educational institutions. The student can study anytime. It will be very helpful in placement preparation since the system consists of the quiz and other tests. They will be able to improve their knowledge with the help of this system.

II. ARCHITECTURE

III. MODULES

The e-Learning system consists of the following modules:

- Login
- Register
• Program offered/enrollment
• Student Home Page
• Interact with instructor
• Q&A forum
• Course Coordinator
• Chat Session
• E-Tutorials
• Webinar
• Video Conference

A. Login

The students and the admin can login with their login forms which have different rights for the particular type of user.

B. Register

If the new user have to use the system they have to register their details and can utilize the system.

C. Program Enrollment:

The module consists of various courses for the students and they can add the course to their profile. They can enroll as many courses as they want.

D. Student Home Page :

The module where the student can view the contents of the subject/course.

E. Interact With Instructor

The module consists of the details of instructor who will be excellent in particular course with ratings. The students can clarify their doubts by mailing the instructor or by messaging them.
F. **Q&A Forum:**

The module consists of the questions asked by the students and the question can be viewed by other students and they can reply and discuss about the problem and solutions can be given.

![Fig 1.6 Q&A Forum](image)

G. **Course Coordinator:**

The module consists of courses where the coordinator can upload the questions and quiz.

![Fig 1.7 Course Coordinator](image)

H. **Chat Session:**

This is the module where the student/admin who are all enrolled can communicate with other students in private chat or in group chat.

![Fig 1.8 Chat Session](image)

I. **E-Tutorials:**

The module in which the online videos and audios are uploaded for all the courses/subjects. This provides the student a better clarity about the subject/course.

![Fig 1.9 E-Tutorials](image)

J. **Webinar:**

The module includes the webinar section where the workshop/seminars are conducted online for the courses enrolled.

![Fig 1.10 Webinar](image)
K. Video Conference:

The module where the students can present their projects with the help of video conference.

IV. CONCLUSION

This Project is designed in such a way that any student can login to the portal and learn subject of his/her choice through a process of self and guided learning. The Virtual Classrooms contextual learning methodology with real time examples are the main features of the proposed e-Learning Engine/Portal. Our teams have implemented all the transactions and business logic related to student and course coordinator.

REFERENCES

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