E-LEARNING PORTAL

Introduction :

The E-Learning Portal aims to provide and let the education go online by bridging the gap between the students and teachers around the globe. This portal integrates the teachers and students to provide solutions online.

This E-Learning portal lets the students and staff around the globe register and staff put their specialized fields of technology in order to get doubts posted in that area. The admin can manage the accounts of the students and teachers in the web portal

Scope :

The main objective of this E-Learning portal is to provide the knowledge on a large scale over the internet and improve the education system. This also improves the interaction between the students and staff.

The student can register with the portal and view all the earlier posted doubts on the portal and their answers provided by the respective staff. Student can also view the articles uploaded by the staff and manage their accounts by updating information.

The staff can register with the portal to view the staff inbox in which the student information is provided along with the question. Staff can then reply to the doubts of the students posted and upload their personal articles for onto the portal to help the students and manage their personal staff account.

The third main user above all these is the admin who can view all the students and staff registered in the portal and can manage their accounts if necessary.

Architecture :

We are developing an E-Learning Portal, a multi-tier application in which the business logic, web server, database and User Interface are maintained differently. The business logic is implemented in ASP.NET and the database storage for data retrieval is done using the Microsoft SQL Server and the Web browser used by the end user is the thin client.

Software requirements :

1. Visual Studio 2012
2. Microsoft SQL Server 2010
3. Internet Information Server 7.0(IIS)
4. .NET Framework 4.5

Business Logic:

The Business logic which we are trying is implement keeps both the student and staff logics pretty much tightly coupled and the other one is the Admin interface where admin can view all the staff and students who are registered in the portal and their actions.

1. Student and Staff User Interface

The modules of the students and staff are linked with each other like the staff can see the doubt only if the user posts a doubt. They both have the doubt interface where one can post the doubt and the staff can clear the doubt.

1. Admin User Interface

The Admin interface in the portal is a bit different from the student and staff role because admin cannot post anything but can view all the details about the users irrespective of which category and track their activity.

Modules:

The E-Learning portal has three main modules:

1. Student Module
2. Staff Module
3. Admin Module

Student Module:

The students can register to use this portal to post their doubts and view the previously posted doubts in their inbox and search for any documents which might be helpful for them and also manage their personal account.

Post Doubts: The student can post their doubts by choosing the category under which their doubt goes, so that this doubt will be posted to the staff member who is specialized in that particular category.

Staff Module:

The staff members can also register to use this portal to view all the doubts posted among the portal and the Reply doubts to reply the posted doubts of their specialized category. The staff can perform other operations like managing their account and upload their personal prepared files on to the portal.

Reply Doubts: The staff would be able to see all the doubts which are not replied yet under their specialized category and choose the doubt to reply to the student.

Post Material: The registered staff member will also be able to post materials prepared by them personally to help the students to clear their doubts.

Admin Module:

The admin module is different from the above two modules which are tightly coupled where as admin is a bit different where he has the authentication to view all the data on the portal and observe all the actions on the portal. Admin can select a student or staff member to view their personal information.

Database Design:

Relational Schema of the Database:

We have used MS SQL Server 2010 to store and retrieve data from the server to the client up on request. We have three main schemas in our database.

StudentReg and StaffReg

Column Name	Data Type	Contstraints
FName	Varchar(50)	NOT NULL
LName	Varchar(50)	NOT NULL
Mail	Varchar(50)	NOT NULL
Password	Varchar(50)	NOT NULL
Gender	Varchar(50)	ALLOW NULL
DOB	Varchar(50)	NOT NULL

Doubts

Column Name	Data Type	Constraints
DoubtID	int	PK
Topic	varchar(50)	NOT NULL
Cont	varchar(3000)	NOT NULL
Category	varchar(50)	NOT NULL
StudentId	varchar(50)	NOT NULL
StaffId	varchar(50)	NOT NULL
Replied	int	NOT NULL
Reply	varchar(3000)	NOT NULL
Viewed	int	NOT NULL
Feedback	varchar(1000)	NOT NULL
Rating	int	NOT NULL

These three schemas in the relational database are independent of each other and function independently while inserting data and retrieving the data from the database.

Advanced Functionalities:

1. Students posting their doubts by choosing a particular category which will be ready to be answered by staff members of that category. This makes the doubts categorize and get quicker answers.
2. Uploading the files by staff member which can be accessed by the students upon search in the portal and help them in gaining more knowledge and acts as a reference**.**

Work Division among group members:

Name	Business Logic	Database Design	User Interface
Koushik Ravulapelli	40%	30%	30%
Anudeep Gajapuram	30%	40%	30%
Manoj Muthreddy	30%	30%	40%