NBA Web Portal

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Abstract

Accreditation is said to be an important part for assuring quality of institutions regarding education in colleges and university, particularly in engineering education. Ministry of Human Resource Development (MHRD) and University Grants Commission (UGC) established National Board of Accreditation (NBA) and National Assessment and Accreditation Council (NAAC) for the sole purpose of just assuring proper education environment. So, in this paper we will be discussing about a web portal we designed for college management system. This paper develops and describes a web model which covers different aspects of web designing. Visual Studio is used for designing purpose and c# is used for the purpose of coding and database management.

Keywords

Accreditation, Evaluation, Assessment, Flexibility, Database

I. Introduction

The aim of this project is to create a software for Computer Engineering Department; purpose of this is to evaluate the "Self-Assessment Report". This software gives permission to the staff to evaluate, their proctor details, result details and allotted subject. The project is more user-friendly so that anyone have minimum computer knowledge can access and handle the software without having any complexity. A conduct is organised by the evaluation team with the management representative including all the head officials of every department including head of institute. This meeting is done after onsite visit of the team. They look after each and every point of strength, weakness and scope of improvement. The institution is given chance to withdraw any programme at its own interest from process of accreditation by writing a letter to the chairperson of the evaluation team.

The whole procedure is followed in according to different phase of software development. Previously teachers used to complete their assessment report with help

of different word form. In that form teachers fill up different forms in according to different points collected by them during evaluation project. So, collecting different forms and adjusting them in according to their area. Reports not only consist of word documents but also of excel sheets.

So, in requirement phase, different requirements and information were collected by teachers in according to their work load. We were suggested to have a login page in our portal so there are no security issues.

Teachers have to follow nine different guidelines which is provided by NBA. Our main motive was to cover each guideline and use different methodologies for the evaluation process.

The points of NBA on which the user will be doing its work include -:

- Vision, Mission
- Programme Educational Objectives
- Programme Outcomes
- Programme Curriculum
- Students Performance
- Faculty Contributions
- Facilities
- Technical Support
- Academic Support Units
- Teaching-Learning Process
- Governance, Institutional Support
- Financial Resources
- Continuous Improvement

Different guidelines will be evaluated on different type of documents, so while providing different web form for different points they have to be connected to their specified document types so that while accessing the full report all information is arranged properly in their specified type.

The final assessment will be done when the user will be done with each point. A specific functionality will be provided for final evaluation after which user can submit their report. The reports will be submitted to the administrator of this web portal.

Because of different concepts of administrator and user, two different login concepts are used. A verification procedure will be followed at the time of login. The verification will be done in similar manner as done in other secured websites. At the time of registering the users(teachers)will be giving their full and correct data, that data will be saved on an external database server. And only administrator will be given the privilege of using that server so that he can confide to it.

We have used Visual Studio as a platform for web designing. ASP functionality were used for creating different web pages. For designing and testing purpose C# was used.

II. Problem Statement

This topic will be beneficial for our branch for their evaluation and analysis of the performance report of the department which will bring transparency and evaluation process which, in turn, improves the quality of accreditation process.

We will be creating a web portal through which teachers will be able to submit their individual Self-Assessment Report directly, without any hectic process of creating different documents and compiling them to an instructed format submitted to National Board of Accreditation.

These reports will be available online to the institution, and to the chairperson and the evaluators on the website of the NBA. They can have the flexibility to either fill the form online or download the form and submit the same by mail.

III. Proposed Work
Phases of our portal is as follow-:

A. Login-Id Phase
1. Register: First of all, the user has to register to create an account. He or She have to provide specific instructions. Then after filling the registration form a verification link will be sent to their e-mail id or to their respective mobile number.
2. Login: If user is already registered to the website then he or she can normally enter their user id and password to log into the system.

B. Data Selection Phase
1. User have to check for specific document which they have to edit.
2. They can either open a document from the database provided to them where they will be storing their document.
3. Or they can simply go for specific option provided on the website.
4. The user can also check for the specific points which are provided on the website on which the document is being created.

C. Execution Phase
The final document will be created on the word file extension. So, user don't have to worry about compiling different documents to form a single document.
The document will be submitted at user's will to the administrator's address from where it will be sent to its appropriate place. Here administrator is referred to the Head of Department.

IV. Working
In this web project, we have worked on four different aspects of web pages. We have built this pages on visual studio. The platform chosen for this project is C# and ASP.net.

A. Home
This is the master page of the project. This simply give the initial design of the whole project. This page is connected to a web form which gives the functionality of the web page. This web page is used for debugging purpose. Different links to different web forms is given to this web page through which user can navigate to different web forms.

B. Registration
This web form gives the instances about different types of controls of a web page in ASP.net. This web form is connected to a database which stores the information of the whole user signing process. The registration page contains different instance of tools used in normal building of a web page. In this we have also used different commands in c# language for working on functionality of different types of buttons and calendar used.

C. Login
This page is connected to the registration page. The data will be rectified for the process. The login page is also connected to the same database. In this web form functionality for login web form is used which is used to connect to our registration form.

D. Accreditation Points
The nine points is given as some rules for calculating the assessment point for faculties. Every point describes different grounds for calculating points depending upon different aspect for academic performance and teaching performance.
There are totally nine different points on which total accreditation process depends. Those points have already been listed above. Every point is connected to a database, in a form of excel file. Which is used to store every faculty details and also used to calculate different area of academic details listed in the specific points.
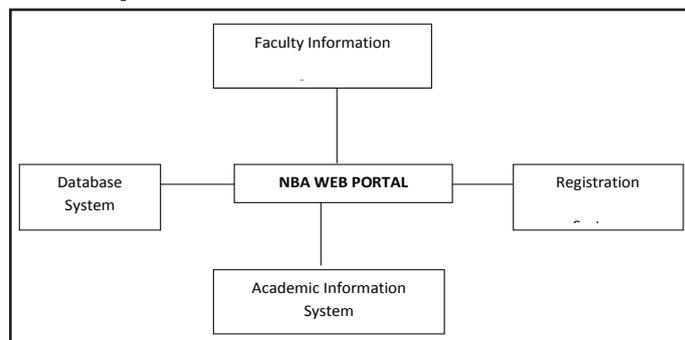
V. Description

Fig. 1:

VI. Specific Requirement

A. Hardware Requirement Specification

Requirement	Specification
Processor	Intel high generation Laptop, 2GHz and above
RAM	2GB and above
HDD	200 GB and above

B. Software Requirements

Software	Version
Operating system	Windows 7/8/10
IDE	Eclipse
Front End	HTML, CSS and JavaScript
Back End	Visual Studio and Oracle 11g
Web Browser	Google chrome/ Mozilla/IE

C. Interface Requirements
The interface requirements should satisfy the interaction with outside world.
1. The database tables that are required for the proposed system should be maintained by software.
2. Validations at both browser side and server side are to be made interactively.
Help screens for usage of the system are required.

VII. Functional Requirements

A. Creating Documents
1. Registration system: A list is uploaded periodically by the admin to determine points offered in the ongoing semester.
2. Documents are generated by the registered faculties of respective department by working on respective points.
3. Admin have the privilege of updating the content appropriate for submission to the evaluation team.

B. Report Management

1. Allow points to be entered online: Different forms have been made in according to different guidelines given by NBA. Faculties have access to that form and they just have to enter respective points online.
2. Access reports: The forms are saved in form of database and faculties can access that in future to modify its contents.
3. Specific information is given by faculties at time of entering data's so that they can be used to work on any given data important to show quality and grades of any faculty or department.

C. Document Management

1. Creating documents:Faculty'scan automatically create document with the help of forms, as there are different points so each form is of different type.
2. Document submissions:Each form is checked before submission, to ensure proper entrance of data in proper formats.
3. Grade management:As specified above, forms can be used to work on grade of respective faculty or department.
4. Document Maintenance:Document can be maintained, in case if there is any change in record of a given faculty.

D. Create Accounts

1. The faculties need to provide all and accurate information at the time of registration.
2. Create one account for course administrator regardless to the number of faculties.
3. The account username is its university PRN.
4. Any change in the password in faculty's system shall be provided to by mail to faculty.
5. Account for each faculty are registered by the administrator
6. Administrator account contain the information about each and every faculty.
7. Administrator can modify faculty account.

E. Document Submissions

1. The users will be able to submit document as required by different point in respective formats.
2. There will be some submission requirement for every document, and users have upload in according to that.

F. Utilization of Resources

1. The system shall store in the database no more than one million transactions. If the database grows over this limit, old transaction shall be backed up and deleted from the operational database

VII. Future Scope

This project is to be used for evaluation of teaching practices done in colleges or university. As it contains many forms available for the purpose of evaluation.

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