Online Educational Web Portal EthioEDU

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Abstract – Every individual aspires to achieve the best of education to fulfil his/her desire and succeed in life. But there are very few in number that are really able to complete this. Because, the more the institution is good, the higher the fees they charge. Students usually leave their education incomplete and do blue collar jobs to meet their basic ends.

In the age of internet and MOOCs, one can equally quench his thirst for knowledge by referring the online websites available. This idea is actually a concept and its also the implementation of an online educational web portal .Considering the present needs and resources available with the students from all sorts of courses the portal will have free information to look out for the schools ,colleges,and all the universities of the region and collect knowledge and their whereabouts.

Along with it interactive chat support and project guidance between multiple authenticated users at same time will be supported. These features are not provided by any educational web portal till now .All this is equipped with algorithms for fast data transmissions and security features like CAPCHA.

Keywords- Interactive chat, free information ,smart search

1. INTRODUCTION

cheaper as compared to the traditional education courses. The best thing about online learning is that you can learn flexibly and also get certifications. You only need passion for learning and a quick online search will surely help you as a guide and mentor. This is also an educational web portal mainly designed for the residents and students of country Ethiopia. As the world is passionately using internet services in education, it is also very demanding and helpful for those who wish to learn in any circumstances. Our intention is to create a solution to support educational processes, which would also represent a publicly available knowledge base dedicated to the topic of knowledge discovery. A portal makes the network resources (application, databases, etc) available to the end users. Goal of this paper is to propose a necessary tool for students in different universities and colleges to help them in getting the required relevant information and resources from a single portal at right time.

II. LITERATURE SURVEY OR RELATED WORKS

Primary schools are generally limited to urban areas and most of them are owned by the private sector and faith based organizations. Primary school consist of two cycles from age 7-10 years and from 11-14 years for grades 1 to 4 and 5 to 10. Low enrolment rates in primary second cycle reveals the persistent challenge of reducing dropout and repetition for both boys and girls. The high level of illiteracy in the adult population is a barrier in achieving development goals. Improving adult literacy rates will also support other development goals. Despite great

progress in the last few years, millions of children are still denied their right to education. Restrictions imposed on education is one of the possible ways of transmitting poverty from generation to generation. Every girl and every boy should have the right to a quality education so that they can have more chances in life, including employment opportunities, better health and also to participate in the political process. In times of high financial crisis or poverty, children are forced out of school, which contributes to higher drop-out rates and lower completion rates. Such students or citizens can learn their higher education from proposed kind of online facilities.

III. FRONT END DESIGN PROCESS:

It is fair to say that front end design play an important role in web application and web portals including ecommerce site, education portal etc. front end is collection of structure and behavior of the web pages that interact with user.

A front end design require the following technologies

- HTML5- it is the most basic building block of the web. It describe and defines the content of webpages. HTML means Hypertext Markup Language. HTML is the structural language of web design. Html uses Markup" to annotate the content for display in webpages.

- CSS3 –to describe the presentation of the html page structure style sheet language is used . CSS describe how to display html element on screen or on other media. CSS is mostly used for animation and transition effect on web pages.

- JavaScript/Jquery - it is well-known as scripting language for web pages. The JavaScript/jquery is used to handle behavior of web pages. The standard for JavaScript is ECMA script. JavaScript/jquery is mostly used for event handling and form validation at front end with dynamic rendering of data.

Back End Process:

In most of the application back end process is work or it is backbone of every system in information technology. Back-End process also called as server-side scripting. it is an important part of any software application.

A server-Side scripting having following technologies
PHP – it is a most powerful server-side scripting language used to making of dynamic and interactive web pages. PHP is widely used for web application and used free world-wide. PHP is used to interact with database to create dynamic web pages. PHP can manageuser sessions and cookies. PHP also support protocols such as POP3, IMAP. It also support encryption.

CodeIgniter- it's a most powerful and widely used PHP framework. It is an open source framework that speed up the development with rich set of libraries and helpers. It is more secure that prevent various attack. It is based on model-view-controller system. It handle error logging and unit testing class. It is framework with small footprint.

Database Design Process:

Database having a key role in all area where computer application used. It include wide range of sector like commerce, education, medical and all standalone and web applications. Database is a collection of related data. Database are used to store, edit delete an information regarding application.

DBMS is a database management system software used to creating and managing database. DBMS provide a way to programmer and users to retrieve, create and update data.

MySQL – MySQL is type of RDBMS and it is popular and open source. MySQL having ability to support web-based and online web application. It run on almost all platform like linux, unix, and windows. It is easier to deploy and handle. MySQL work very fast even with large data set.

IV. ALGORITHM USED FOR SECURITY

CAPTCHA:
Captcha used in today widely in web and used first time at AltaVista in1997. Captcha used to protect web pages from boats it is a method to test the whether it is machine or human. It is a method of identification of user. CAPTCHA are basically designed to make text unreadable to machine.

CAPTCHA is cryptographic protocol. CAPTCHA based on Opticalcharacter Recognition (OCR) program. CAPTCHA methods use picture and random generated string of characters, and numbers. EZ-Gimpy's method of CAPTCHA generation it includes background gradient and pixel noise. Mostly machines can't read distorted image but human user can read. In this paper CAPTCHA Method has been developed for differing computer program and human user from each other by mainly adding distorted background and random string.

This image is generated from server using random text. The user has to enter same letter as per captcha image. When the form submitted the server will check the captcha input text with initially generated captcha image. If it does not match the error message will be displayed and user have to enter new captcha.

Programming steps of the algorithm that we developed to generated captcha image.

Step 1: Generate an n number of random string from the string"ABDEFHKLMNPRSTUVWXZabdefgikmnopqrstuvwxyz023456789".
Step 2: create a distorted image with adding noisy image
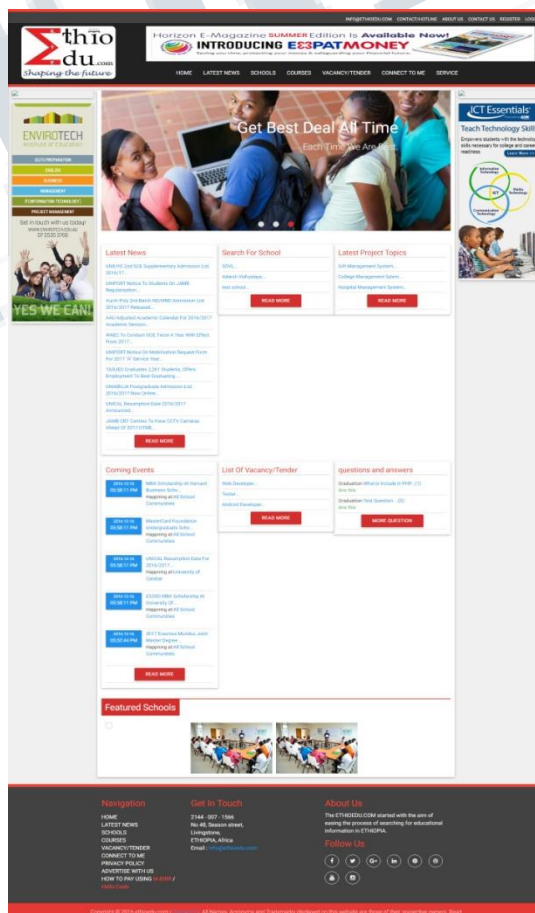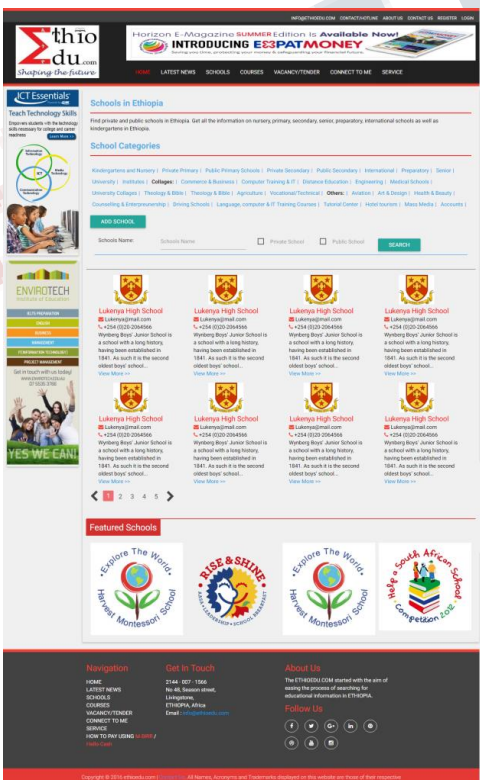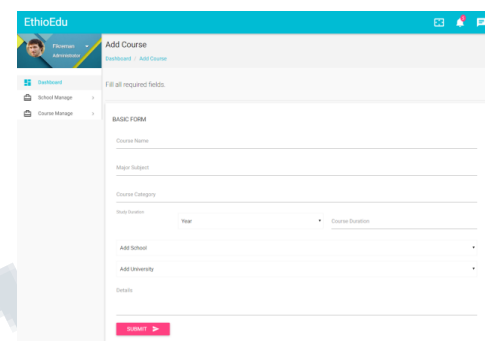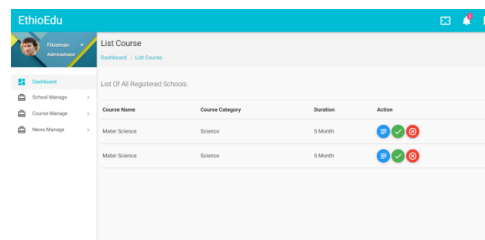Step 3: Add Captcha random text over image
Final result will be look like this:

V. IMPLEMENTATION SCREENSHOTS:
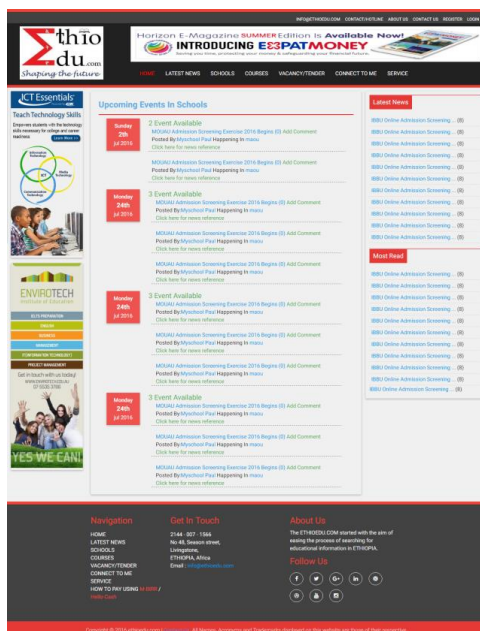
V. CONCLUSION

Upgraded and a better and efficient online portal system is described here. Availing the necessary and fruitful study materials , concepts, etc is already available in many of the web portals either free or paid. But for the determined students what is more important is to discuss their doubts, ideas with someone who is either professional, experienced or another colleague. Considering this aspect our idea is to implement a portal which is a complete packet with all pre-requisites along with a feature that supports interactive online chat. This will surely increase the interest in teaching learning process as well.

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