

Educonnect: Digitized Education Using Web Technology

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Abstract— Majority of population still lives in rural areas in India so education for those people is of utmost importance. Quality of education is the major concern in rural schools as only fewer teachers are committed, there is lack of proper textbooks and has access to limited learning materials. There are various government schools which provides education but as compared to private schools quality is the major concern. This paper discusses a dynamic school website which consist of various other modules which shows functioning of school. It seamlessly integrate data together to launch an interactive, rich and informative portal focused on education by developing, implementing and enriching a learning platform and content. This paper identifies learning deficiencies of students and aids with additional resources knowledge transformation from alumni to provide them activity based learning.

Keywords— Responsive website, Text-to-speech, Searching, E-learning, Random Quiz Generation, Alumni connect, Notification and announcements, Test series, Link redirect.

I. INTRODUCTION

After proper analysis of the current situation in the rural areas, we came up with the problem statement to help rural people solve their problem related to education. The villagers told us that they faced educational problems, were students find it very difficult to find a stable source for education. For better livelihood students along with their parents have to migrate to other places where lot of laborious work is done. Due to which many students are not regular to school and some of them even drop out of school. To empower students regarding education whereas to make it more interactive and make students more curious to learn new things been implemented. Although these students have various skills, but due to insufficient resources, they couldn't exploit their ability and skills to earn and has no platform to showcase their skills so they get an interactive platform through which they are able to showcase their ideas and work on it.

Although the government has helped set up of computer stations where villagers can access the web to gain knowledge, due to poor technical skills they are unable to leverage the availability of computers, cell phones, and the internet to solve their problem and improve living.

II. RELATED WORK

Every pre primary school has various activities to perform. So in order to see that all the task has been performed properly we an easy decision making system by automating all manual work. Here all the school work is managed by an administrator. Its works with managing student, managing faculty, and manage all administrative work. It also generate marks for each student which is displayed on the student portal and faculty is able to access it and manages all the paperwork and other data collection is generated standard wise. It keeps all records of events and other activities.

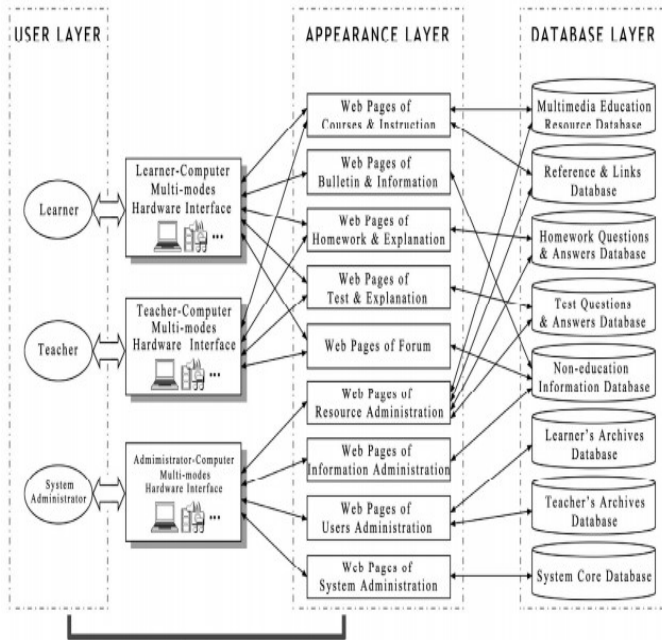
III. PROPOSED SYSTEM

1. The system should do the processing with huge speed and make decision faster and even load the contents speedily.
2. To reduce the manpower and even manual work which leads to time wastage. This can be reduced through automating paperwork into computerized system.
3. The main purpose is to provide an accurate and updated result and day to day report of students, staff, employees, examinations and scheduling of teachers as per each subject.
4. To provide precise and concise information to them on timely basis.
5. Here the document and other details should be kept safe from intruder for that purpose authentication is required.



IV. METHODOLOGY

This paper is developed to propose a communication model in the pre primary school between the pre primary school administration and students to provide a better information services by implementing various web Technology. This has been implemented and is worked by using distributed network sharing system for students[2]. The basic idea of creating pre primary school information system via web Technology to make sure that student are able to access information through that portal anytime anywhere[2].



KEYWORDS

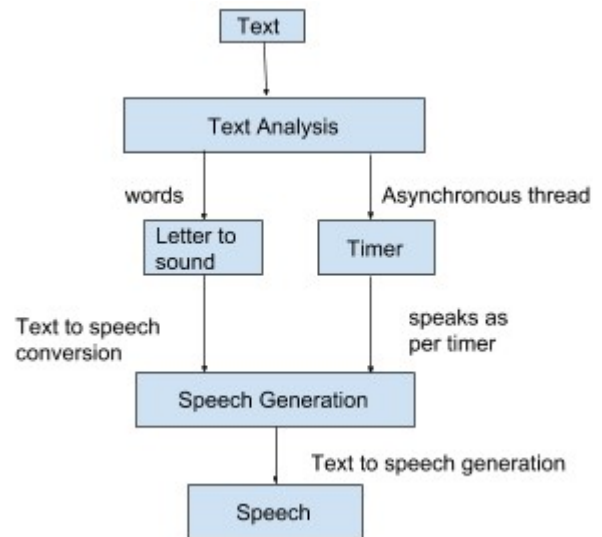
1. Responsive Website

Nowadays mobile devices are used for any urgent purpose so data should be available anytime, anywhere for that responsive website is created. This gives page dimensions and scaling were the pages are responsive and can be viewed in any system[1].

2. Text-to-Speech

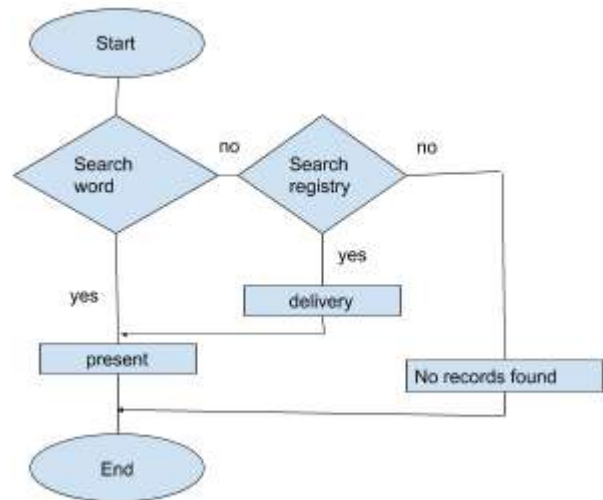
Text-to-speech is the automatic converting system which converts text into speech which generates local voice to read the given text. The text-to-speech module process voice into an audio format[4].

The text-to-speech procedure contain two phases. The one is analysis a text, where the input text is interpret into a vocal or some other phonetic representation, and the second one is the generation waveforms of speech, where the output is produced from vocal and prosodic information. The input text might be for example data from a word dictionary, standard ASCII from email, a mobile text-message, or scanned text from a newspaper.



The character string is then pre-processed and analysed into vocal representation which is usually a string of character with some additional information for correct data , duration, and stress.

3. Search for additional resources



When user type a query provided to him following steps are performed:

- I. There are n number of keywords that are searched in the website page.
- II. If the keyword does not match go to step III
- III. Else go to step VI.
- IV. Check other or remaining keywords in the registry.
- V. To check weather the data is present or not.
- VI. If the data is not present then it will give the error that the data is not present in the given database.

VII. Read all the links to the search word and corresponding frame from index of the keyword.

VIII. Print or display all the data that has been searched based on the given keyword.

4. Learning Assessment

E-learning plays very important role in rural as well as urban areas to provide digitized education for students as it is very important part of smart education and is mostly used in recent years [3]. There are various institutes who uses E-learning facility. Test provides a time interval in which the test has to be completed and random questions are been generated, and audio is been used in case of any difficulty.

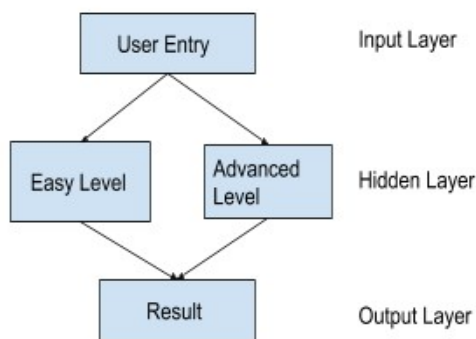
Aim of proposed system service to help each other by providing:

- Online 24 hours, certifications, live query solving.
- Blogs and chat forums.
- Database updation of frequently asked question.
- Assessment and test preparation.
- Downloadable training materials.

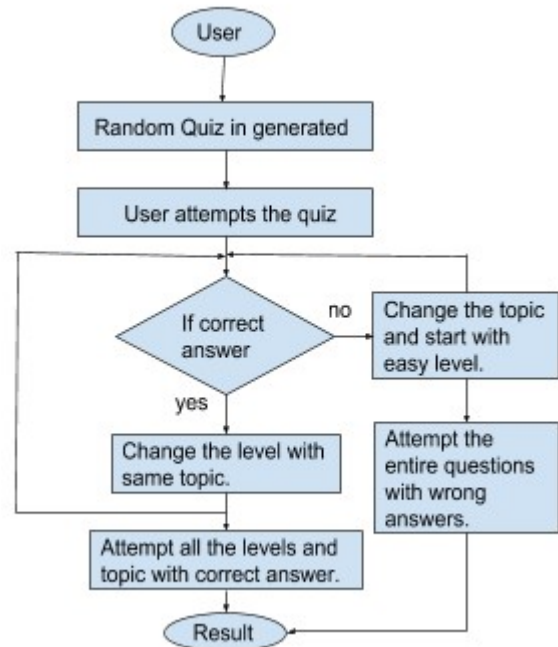
5. Notification and announcements

Notification panel generally carries important announcements or messages. You can use the Announcement Bar to display a custom message in educonnect website. This is a great way to announce a scholarship notice , school activity notice, exams related notice, or scheduled site maintenance [5].The Announcement panel is editable appears on faculty page and view announcement on student page of website.

6. Random Quiz Generation



- 1) Begin test of 20 questions.
- 2) Divide those 20 questions in two parts as beginner and advance.
- 3) Again beginner will has two complexity levels beginner 1 and advance 1.
- 4) If students solve all beginner 1 level questions then he is forwarded to advance 1 level.
- 5) If student solve above 50% complex 1 question then he will allow to solve advanced level question.
- 6) The same logic applies for advanced level.



Flow of random quiz generation:

I. User enters the system by providing login details.

II. There are two levels easy and advanced. After that, certain random questions are generated from the dataset. Initially the quiz will start with easy level.

III. User giving correct answer and has passed the test then the system will automatically change the difficulty level and at the end, after successfully completed all the level; automatically the topic will change with easy level.

IV. When user gives the wrong answer in easy level, the user won't be able to take the advanced level test.

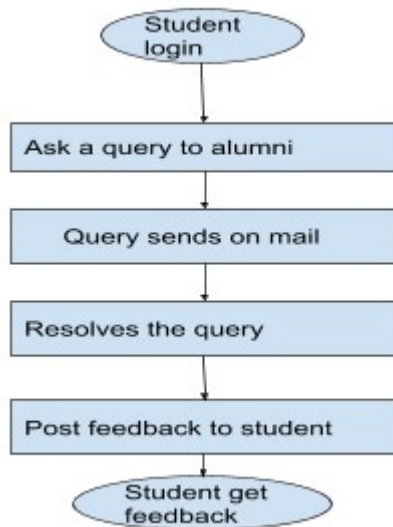
V. After attempting a certain level and topic, result will be displayed for each subject.

Complexity level in the test has been randomized. Therefore score along with level will be displayed. Quiz has been developed for educational purpose using randomized algorithm. It also provides the mechanism for controlling the difficulty levels of generated quiz. This model will help more to the student as well as learners for preparing for exams and certifications. The proposed model can be deployed in some organization and based on which results can be tested more accurately and more user-friendliness can be provided by integrating various technologies.

7. Alumni Connect

This Alumni Connect site provides an opportunity for primary students to stay connected with the School and each other. For Under the direction of the Alumni Council members, this site offers most helpful information to our alumni, while also giving them a sound in shaping the future of various school

activities. This is like an helping hand where if in case teacher is not present then any other person can take in charge to provide them a teaching platform, to acquire extra knowledge other than syllabus[4].



8. Assessment Analysis

Online Test Series are been conducted based on chapters, topics and difficulty levels are set for primary student. Even combination of two or more topics can be made while conducting Online Tests. Online Test Series can generate questions which depends upon subjects which are for primary school students on which comparative analysis like percentile, score, standard wise performance analysis is been taken into consideration[3]. It also gives invaluable practice with basic level questions and advance level questions. It helps students to get score of his/her progress and display the final result of each student. This technology based exam

pattern facilitates students to mock test, performance analysis towards final exams with build confidence

V. RESULTS

E-learning helps in improving educational quality, engage young learners in various activities and make them more curious to learn new things. Students become more confident, they use their knowledge and appreciate the opportunity to study. This program allows learners teach themselves and their families.

In India, online learning has achieved many good results and students get an exposure to various fields. It helps in preparation for entrance exams and competitive exams as well.

VI. CONCLUSION

The purpose of this project is to develop an advanced web Application information system between university administration and students with the use of web technology, the requirements of the project was a due consideration at each stage of the development. Designing such an application to meet the aspirations of many users seems complex at the beginning, but the work at the end was able to meet all the original goals. The basic idea is to provide fast and reliable information service to students in the campus environment. This application provides an interface and various resources where students can communicate to administration.

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