

# An Effective E – Learning Web App using Android/JSP/MySQL hosted in Microsoft Azure

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## **Abstract:**

In today's era all the cloud learners can easily absorb the new knowledge without any barriers on time, this paper represents us the receptiveness and effectiveness in the e-learning portal. The main aim of this paper is to analyze e-learning system quality through student's satisfaction. The major focus is given on the portion to design and develop different types of e-learning services in computational grid environment. This smart e-learning system may become more efficient, optimal, and attractive too users by specific support which they can provide to both learners as well as tutors. The paper basically represents a prototype implementation of smart e-learning system which may offer some features to users to grasp the requirements easily. This portal might provide a area where all kind of required academic materials may be provided whether it is related to academics or for any further studies

**Keywords:** e-learning portal, jsp, servlet, database

## I. INTRODUCTION

If we see in the past few years the use of information technologies has been increased substantially in the education domain. At the same time, the expectation of teachers and students as well. People from all over the world, with largely different cultural backgrounds can benefit from using e learning portal. For users with a necessary educational needs a typical scenario includes the users visiting one or we can say several online educational courses , selecting most appropriate course for their need and then finally registered it their proposes .

Therefore, learning processes need to be fast and optimal and efficient. Intentional use of digital media and information and communication technologies is teaching and learning process is referred to e-learning where "e" denotes to "electronics". It can also be described with many other words like online learning, virtual learning and

many more .Nowadays people want to become digitally and smartly beneficial in all kind of field, so looking forward for to this we create e-learning portal which may give all kind of academic material in one portal. User may just have to register them and then they can access the features more easily.

Education is usually perceived as the method whereby we have students in a classroom receiving lessons from teachers but with the help of information technology through the internet. The great thing is learning can be achieved without having teacher right in front of students , student may download the relevant material form this app and all videos related to the topics and can easily studied from it. There is also a comment section where you can write your doubts which may further be sorted.

Since the internet was adopted and further developed as a means of communication by educational instructions in the 1970s, academics have been

aware of its massive potential as a learning tool. In the very recent year, government of both developed and under-developed nations have become increasingly excited about the possibilities of online learning to deliver cost effective, easily accessible and ever current education to all ages and social backgrounds. Fig 1.is the block diagram of the work

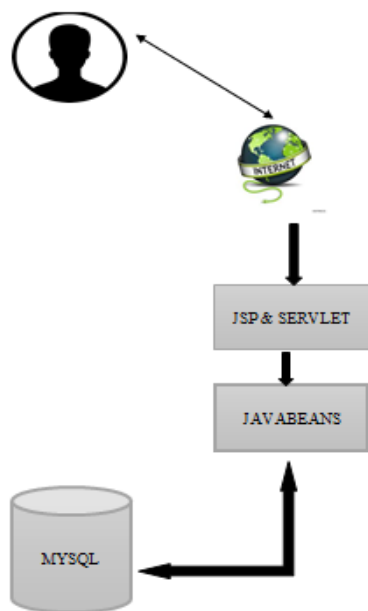


Fig 1. Block diagram of e -learning portal

## II. RELATED WORK

We have certain websites which may providing education/learning material to users. E-learning portal generally made to provide functions to interact with users. The main problems of these websites are , these websites are not user friendly so, users may have to become paid member to certain websites and also if they have to access different study related material then , they have to access different sites and one more issue is material is not full provided even they will not find videos related material too. Even the learning websites are restricts the only courses related study not other learning websites activities is not included. Bit in this portal there Is not these kind of issues user faced. User can easily access to related course and also have privileges to download and upload the materials. User is not only restricted to course study but it also included learning activities belong to our daily life.

Here are some previous projects from which we have taken as a reference in making of our work.

**The Model for Introduction of Gamification into E-learning in Higher Education**–“The following paper presents the model for introduction of gamification into the field of e-learning in higher education. Concepts and differences between techniques and methods of game-mechanics and game dynamics are explained. This app provide us the details in courses of gaming . This app only specialized for gaming purpose . The user should able to learn and play the games simultaneously[1][2].”

**E-learning challenges faced by academics in higher educations** –“E-learning has become a necessity in higher education institutions and is being deployed in educational establishments throughout the world. Researchers have made much emphasis on its benefits but not much is discussed on the disadvantages of e-learning technology. This paper references some of the research work on the limitations of e-learning technology, categorises it in five challenges that teachers are faced with and suggestions for a successful e-learning outcome[3][4].”

**The e-learning handbook : past promises and present challenges** –“This app provides us the best solution till date . In this app work upon the rate bsd system like if there is numereous number of courses , link , book . It only recomened the best rated up book . and the rating system is done when user login to some area and before logout the system ask fo rthe rating and then after the user supposed to logout . In this app the rating system is compulson[5][6].”

## MATERIAL AND METHODOLOGY

Several materials are used to build this work. Certain software interfaces are used like window 8/10, 4GB RAM/ 255GB HDD, direct \*12, MySQL. Technologies are also used like JavaScript, HTML and CSS for full front end development tools. JSP to

create link between database and retrieve / store data into it. MySQL for free open source database to store data. AJAX used for login and logout feature.

The user of work will have three major roles: administrator, tutor and learner.

The administration may give right to all users. He can see all details related to anything.

The role of tutor involves responsibilities ranging from course content authoring and editing, to expanding tests and quizzes for different learning items and providing guidance to the learners.

The learner is the central actor around which the system has to be organized. all the activities were done only for the learner. A learner is able to select the courses for study and read various sections from the chosen section.

- A. Administrator role – The main responsibility of the administrator is to supervise the smooth functioning of system. He has the right to access to detailed information about activity of every user. The implementation behind the filter form for reports is very general, so that it can be used in many other areas.
- B. Tutor role – Each tutor has the right to modifying the course he has in charge. Once the course has been selected then the tutor is able to suggest the output as a suggesting the best material. tutor may have conduct test time to time so that you can also have document about what you have learned and how much you have understand .
- C. Learner role – the larger right panel contains the current learning items displayed for reading and studying. The only role of learner is to type what kind of knowledge he/she want to gain from this portal after that the tutor or admin suggest them the best material identical material what has been requested by learner. for every learning item there is available a button “quiz”. When a learner presses this button a quiz for the corresponding learning item is generated

from the questions which were available in database.

### III. PROPOSED WORK

There are many projects already introduced which may be similar to our project. Similar in the field of collecting data, similar in the area of administrator, similar in the field of tutor .Many projects might be already created which serves features same as we inbuilt in our project .Many portals take charges for download any content from that server but in our project we remove this restriction for making our portal more open source. There is no invention of such portal which gives all kind of document in one server whether it is related to GATE, JEE mains and advance, CBSE syllabus, academics syllabus. All kind of material you can find in one server. The main reason of working on this project is to make server more efficient, optimal and beneficial. There will be no charges taken for any downloading any courses from the server.

The portal contain section of classes from 1-12 , GATE previous years updated paper also included as a different section, IAS sample paper , JEE mains and advance previous year papers. The pdf, documents where store in the database, which may easier to download without any cost. Admin will update the documents every year for finding the better optimal result. There will also a tutor present which guides you and which helps you in finding the effective path to reach to the goal.

### IV. CONCLUSION AND DISCUSSIONS

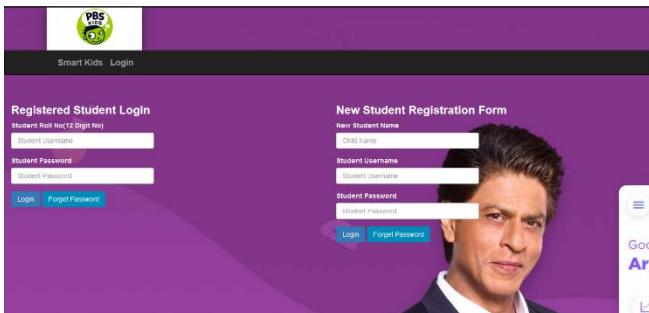
This application is going to bridge the gap between the students who are preparing for the various competitive examinations like Main, Advance, Gate, IAS etc. It is also going to resolve the problems for purchasing the books and how we will be going to explore the E learning opportunities. Our E learning platform is not just helping the students economically but it is also going to play a very vital role in helping the students by saving their prestigious time. This application is inspired from

the different learning platforms such as Byjus and CBSE E Learn App. We 3 members team had tried to integrate the various options which can help the students to learn well and excel in their life.

## V. RESULTS

The work basically is a website like Byjus that will provide learners a platform to find their field related documents accumulated at one place. This work has same sign-up page for each new user but has separate log-in page for different users i.e. admin, teacher and student/parent. Every category of student will find stuffs that are useful for them it can be a student from class 1st to 12<sup>th</sup>, IAS aspirant, GATE aspirant, IIT aspirant or many more. Snapshots related with this work is shown below.

1. This is the snapshot of login page of our project. In this we can see that we have login and sign-up for students and teachers.

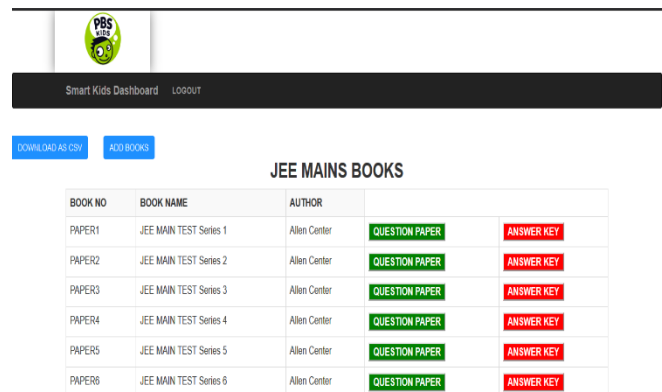


2. This is the snapshot of dashboard of the user. In this we can see that we have sections for different categories of student.

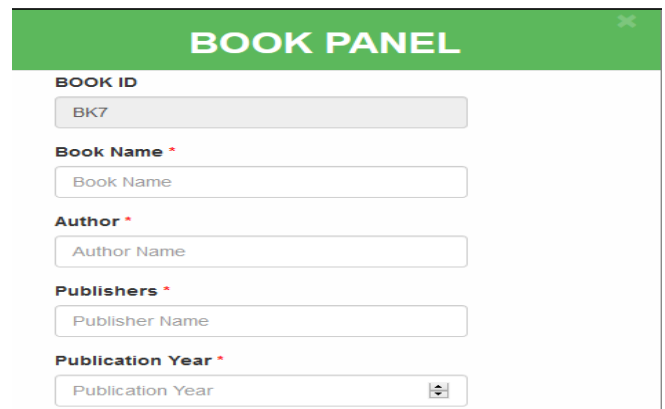


3. This is the snapshot of download link of libraries' of test paper as well as sample

paper of JEE MAINS. Here student can download stuffs related to their work.



4. This snapshot is for admin to upload stuffs i.e. pdfs and docs for different categories of student.



## VI. FUTURE SCOPE

Right now, our website is just limited to the Web. We had already started implementing the app to the Mobile and making it friendlier so that more users can learn from it and use it to deliver their services at large scale. This App is not going to be limited to only educational books. We are also trying to add different podcasts on it, so that we would be able to reach more consumer base and create better platform for the users. This Application is going to help in creating better innovative society.

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