

E-LEARNING WEB PORTAL USING REACT JS

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Abstract - Learning talents range among individuals, but faculties train them in a single classroom. With the wide growth of several technologies, learning today is no longer restricted to the classroom with lecture conveyance as the only technique of caring for knowledge, rather than learning has continued to evolve is known as Electronics. Electronic Learning(e-learning), which ease education using communications networks, has made learning available from anywhere at any time using the internet, wide region community or neighbourhood region networks. In this paper, we are going to present you with online learning software using React JS.

Index Terms – E-Learning (Electronic Learning), Web Based Learning (WBL), Java Script (JS), Node Package Manager (NPM), Virtual Learning (VL)

I. INTRODUCTION

E-learning facilitates and enhances the literacy process through the use of bias grounded on computers and dispatches technology. E-learning covers a broad order of operations and processes, similar to education via the Internet/ Intranet (web-grounded literacy), education handed via computer(computer-grounded literacy), virtual classrooms and digital collaboration. During the epidemic, it came delicate for scholars to study at home. Several operations were developed fore-learning. It is not easy to shift everything overnight from offline to online literacy but now as the situation is demanding it we now know that are or are we not ready if this thing reprises in the near future are we completely prepared to face questions? As tutoring shifted to drone, meet etc. In this project, we have developed the software E-learning using React JS.

The development of information and communication technology has achieved significant opportunities for higher education institutions because it has helped quality education in space and distance learning programs. Digital technology has played a role in transforming the changing teaching and learning process to become more digitally proficient in recent years. The global spread of the pandemic changed the education system from traditional teaching methods to online teaching. During the pandemic, online learning affected communication between teachers and students by preferring classes over online due to a lack of motivation, and understanding of the material. All of these issues faced by students, and instructors were noticed and to work on that challenges the idea of making a teach online portal was put forward. These materials are self-oriented, web-based, and self-paced. It is easy to find any web-based learning material on websites through search engines.

II. LITERATURE SURVEY

[1] **F.M.Enescu** et al., This paper illustrates a way to which the software technologies spur the development of a web e-learning platform. The method aims to build consistent web applications, having a better and safer interaction with the user, while at the same time consuming less hardware resources meant for the server and ensuring interoperability. The web platform means an easily usable instrument, which allows the passage of knowledge to the course takers, thing that is possible by making use of the new generation software technologies. The transmission of messages and files is possible from the teacher to the student, and the opposite.

[2] **N.Partheeban** et al., The system can facilitate personalized delivery of contents based on the individual learner's knowledge and learning preferences. It will provide participants with an extensive list of summaries of related resources that they can choose to read, or archive for later use. The objective of this architecture is to supply a basis for designers, developers and instructors to construct practicable strategic e-Learning models suitable for their individual e-Learning environments. The proposed framework using the Web Service approach will increase the efficiency and effectiveness of collaborative learning in terms of Reusability, Interoperability, Accessibility.

[3] **Sabina-Daniela Axinte** et al., Predictably, technology began to exert its influence in education, with new practices of large-scale knowledge distribution advancing from concept to reality. It did not take long before the idea of a Quality Assurance e-learning platform emerged. To create it, however, one requires an appropriate software development model. Software systems undergo a series of transformations that represent their outset, early development, transition to production, maintenance and retirement from one generation to the next. This paper examines and clarifies a variety of techniques for understanding or modeling how these systems are developed. Subsequently, the practice through which a suitable candidate for an e-learning platform is selected will be outlined and the product plan detailed.

[4] **Zhenfan Ding** et al., In the study of teaching and learning environment, Java programming and Web programming and many other courses teaching are carried out. This system effectively solves the separation of historical research and current research. The development of the project provides a good supportive environment for the effective conduct of research teaching. Each student set up their own personal website in the server environment. That implements the release and exchange evaluation of student work and improves teaching effectiveness. The platform's enhancements include the further enrichment of collaborative measures and improvement of the evaluation system.

**DESIGN PHASE
Architecture Diagram**

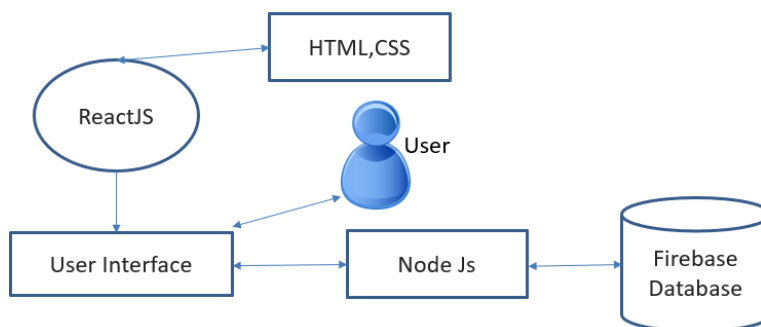


Fig-1 : Architecture diagram for E-learning portal

An architectural diagram is a diagram of a system that is used to abstract the overall outline of the software system and the relationships, constraints, and boundaries between components. It is an important tool as it provides an overall view of the physical deployment of the software system and its evolution roadmap. The above diagram (figure 4.1) explains the e-learning web portal using react js which can provide different types of books and videos.

Data Flow Diagram

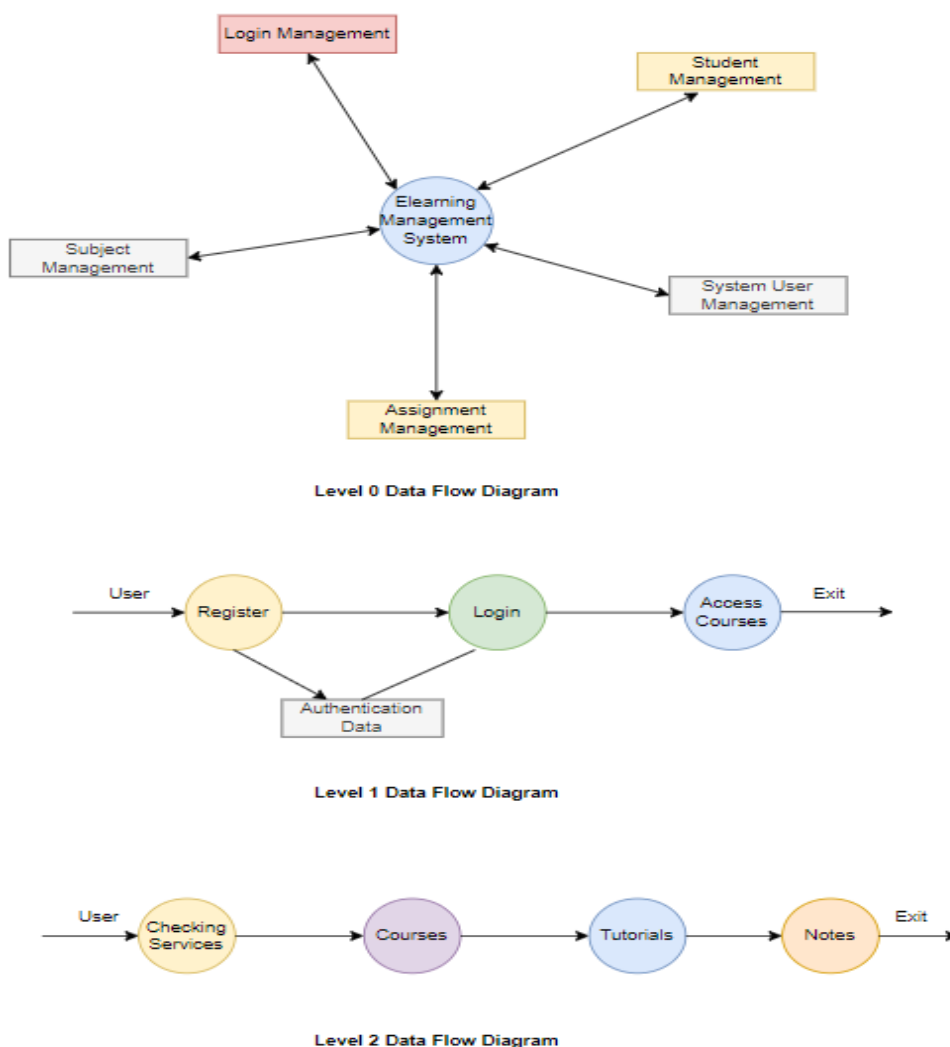


Fig-2 : Data Flow Diagram of E-learning portal

The above figure represents data flow diagram shows the way information flows through a process or system. It includes data inputs and outputs, data stores, and the various sub-processes the data moves through. The Dashboard it has categorized into different types in them. It has performed Registration, Login, Courses, Books, New Students and Existing Students. we can register and login for a new user the credentials have been created and confirmed as existing Students can choose their learning books, videos and tutorials provided on the website.

III. IMPLEMENTATION AND OUTPUTS

An efficient e-learning web portal should be user-friendly and easy to navigate. The portal should also be responsive, so that users can access it from different devices with ease. In addition, an efficient e-learning web portal should have engaging and interactive content, including videos and quizzes, that can help learners to understand and retain the material. The portal should also offer different levels of learning, from basic to advanced, so that learners can progress at their own pace. Another important aspect of an efficient e-learning web portal is the quality of the instructors and the materials. The materials should be up-to-date, relevant, and accurate.

Home Page



Fig-3: Home Page of the E-learning portal

The above figure represents home page. It is the default or front page of a site. It is the first page that visitors see when they load the URL of our website. Web managers can control the home page as a way of directing the user experience. Here, the User can log in/signup to the website to learn the course sites.

Courses Page

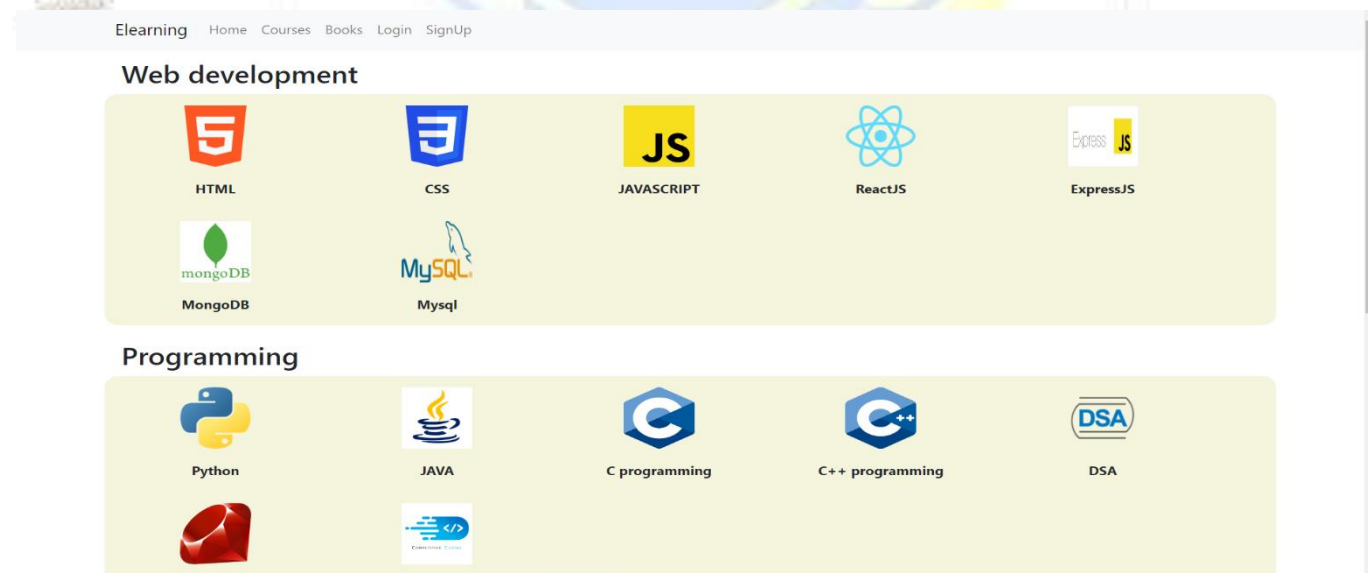


Fig-4: Courses Page of E-learning portal

The above figure represents the Course Book Page. In this page, it has two categories as shown in them. It has Web development and programming. In Web Development, it has HTML, CSS, Javascript, ReactJs, ExpressJs, Mongoddb, and Mysql. The Programming core courses are Python, Java, C programming, and C++ programming. As you are seeing the courses page there are courses based on the domain and Each course has a tutorial with materials.

Finally, an efficient e-learning web portal should have a robust assessment and feedback mechanism, allowing learners to track their progress and receive constructive feedback on their performance. Overall, an efficient e-learning web portal should provide a seamless and engaging learning experience for the users, helping them to achieve their learning goals in an effective and efficient manner. Here below is the output of the course given.

Fig-5: Tutorials of E-learning portal

IV. CONCLUSIONS

E-learning is becoming more popular day after day due to the rapid technological advancements made especially in ICT (Information and Communication Technology). Disappointedly, under developed countries are yet to implement e-learning effectively, for the acquisition of education, knowledge, skills and training. This is partly because of the inadequacy of the required infrastructure and the improper attention given to its impact. Although most tertiary institutions had already commenced the use of e-learning, it is mostly implemented for administrative purposes, such as examination and learning purposes. On this website, we proposed a new technology that is simple and efficient to use. We are going to include a more effective way of learning which can easily make users study online.

V. REFERENCES

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