

SMART LEARNING

¹Divekar Ashwini, ²Gudaghe Mayuri, ³Sangle Ashwini, ⁴Shelke Diksha, ⁵Prof. Gorde V. S

Dept. of Information Technology Engg. S.N.D COE, Yeola, Maharashtra,

Abstract: Computer programming has attracted a lot of attention in the development of information and communication technologies in the real world. Meeting the growing demand for highly skilled programmers in the ICT industry is one of the major challenges. In this point, online judge (OJ) systems enhance programming learning and practice opportunities in addition to classroom-based learning. Consequently, OJ systems have created a large number of problem-solving data (solution codes, logs, and scores) archives that can be valuable raw materials for programming education research. Project aims at extending educational option to the adults, who have lost the opportunity and have crossed the age of formal education, but now feels to learn. So to fulfil their dreams we have taken a small initiative with the help of mobile application. In our system we have categorized whole system into three levels which we will be focusing. First level (Start) will be of People who never went for the schooling our application will teach them the basic education like word, alphabets, numbers. Second level (Moderate) will be of people who went for the regional schools of their mother tongue like Hindi, Marathi etc. Our application will teach them the information of preposition, sentence formation, word completion. Third level (Expert) will have English grammar like tenses, paragraph. At the end the user (illiterate adult) will be able to read and write at least basic words and syntax

Keywords: Machine Learning, Authentication, Security

INTRODUCTION

Machine Learning is the field of study that gives computers the capability to learn without being explicitly programmed. ML is one of the most exciting technologies that one would have ever come across. Educational data mining to support programming learning As it is evident from the name, it gives the computer that makes it more similar to humans: The ability to learn. Machine learning is actively being used today, perhaps in many more places than one would expect. Machine Learning (ML) can be explained as automating and improving the learning process of computers based on their experiences without being actually programmed i.e., without any human assistance. The process starts with feeding good quality data and then training our machines (computers) by building machine learning models using the data and different algorithms. The choice of algorithms depends on what type of data do we have and what kind of task we are trying to automate.

LITURATURE SURVEY

- Recommender System for E-Learning based on Personal Learning Style, Nunung Nurul Qomariyah, 2020 We propose an implementation design of ELearning recommender system based on a logic approach, APARELL (Active Pairwise Relation Learner), which has been implemented for used car sales domain. There is an opportunity to apply the same procedure for e-learning system to help the student to choose the best material according to their preferences. We also propose an ontology of material content based on the different learning styles. In this paper, we show that there is a big potential to implement a personalized recommender system in elearning based on the students learning style [1].
- A syntactic and semantic multi-agent based question answering system for collaborative e-learning, Abderrazzak Samadi; El Fazazi Hanaa, 2018 The task can take up a considerable amount of the time they spend each day on teaching if the number of students is high and the tutors have a narrow time frame in which to reply to them all. In this paper, we present a Question Answering System (QAS) that helps learners to find the best answers to their questions and helps tutors to answer questions asked by their students in an e-Learning environment. We present a syntactic and semantic multi-agent approach to question answering in e-learning platforms. We try to improve existing approaches by using multiple techniques in a multi-layer system where learners and tutors with the help of automatic agents collaborate to find the best answer to the submitted question[2]. 8 Educational data mining to support programming learning
- A survey on service-oriented architecture for Elearning system, Rani S Jamuna, 2009 E-learning refers to learning that is delivered or enabled via electronic technology. E-learning is classified as synchronous or asynchronous. Service based technology in e-learning provides a common infrastructure to integrate heterogeneous software components, thus enhancing interoperability between different components. Service-oriented architecture for e-learning provides adaptable, interactive, extensible, distributed, collaborative and intelligent e-learning system to effectively realize the learning anytime and anywhere to instructors and learners. This paper presents a detailed analysis of wellknown architectures for service based e-learning system. The architectures that surveyed here gives users the ability to collect, analyze, distribute and use elearning knowledge from multiple knowledge sources[3].
- E-Learning Supporting System (ELS) in Nahda University in Upper Egypt: Case Study, Samia ElAzab, 2015 Nahda University is the first privet university in Upper Egypt in Banisuif. As the direction for Nahda University is to be paperless, there is the E Learning Support System (ELS) for the undergraduate students of the six faculties of the university; which includes Oral and Dental Medicine, Pharmacy, Business Administration, Engineering, Mass Communication and information Technology. The ELS is considered the communication tool between students and the academic staff members and this is available anywhere and anytime across the internet in different ways

to be suitable with variable situations and student abilities. ELS is considered Learning Management System LMS and e learning and it is not a substitute for the traditional learning but it is a blended learning. Generally, ELS is the bridge connecting between students and university[4]. 9 Amrutvahini COE Sangamner, Department of Information Technology - 2022 Educational data mining to support programming learning

- Deep E-School-Nurse for Personalized HealthCentered E-Learning Administration, Tannaz Karimi; Babak Majidi, 2019 As a case study, the deep neural networks are used for automatic profiling of students with diabetes. Based on the student diabetes profile a personalized curriculum is designed for the students which includes physical activity and a healthy diet at appropriate intervals during the study. The proposed e-school-nurse can help students to have a healthier e-learning experience[5].

AIM & OBJECTIVES

- To reduce the problem of not understanding the programing
- To become literate through an interactive and enjoyable method without affecting their day to day life.
- To make up for lack of qualified personnel and adequate infrastructure in rural

India

MOTIVATION

PC programming has drawn in a ton of consideration in the improvement of data and correspondence advances in reality. Satisfying the developing need for profoundly talented software engineers in the ICT business is one of the significant difficulties

SYSTEM ARCHITECTURE

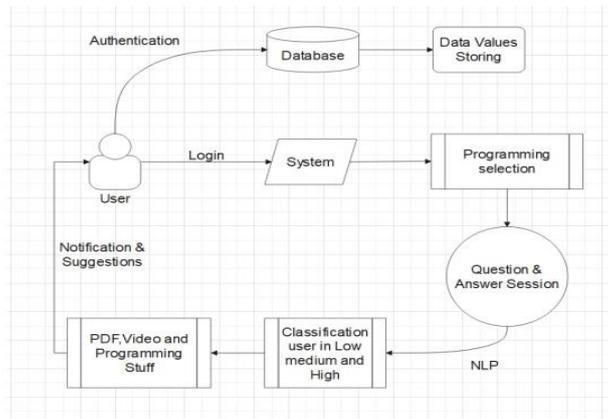


Fig -1: System Architecture Diagram

APPLICATION:

- School
- Collage
- Classes
- Government Sector

Functional and Non-Functional Requirements

Functional requirements: may involve calculations, technical details, data manipulation and processing and other specific functionality that define what a system is supposed to accomplish. Behavioral requirements describe all the cases where the system uses the functional requirements; these are captured in use cases.

Nonfunctional Requirements: (NFRs) define system attributes such as security, reliability, performance, maintainability, scalability, and usability. They serve as constraints or restrictions on the design of the system across the different backlogs.

Functional requirements

- Registration
- User Login
- Creation of database: Users Mandatory

Design Constraints:

1. Database
2. Operating System
3. Web-Based Non-functional Requirements Security:

1. User Identification
 2. Login ID
 3. Modification
- Performance Requirement:
1. Response Time
 2. Capacity
 3. User Interface
 4. Maintainability
 5. Availability

SYSTEM REQUIREMENTS

Hardware Requirements

- Processor core i3
- RAM 4gb
- HDD 500 gb

2. Software Requirements

- MySQL Database MySQL is an open source relational database management system (RDBMS). It uses a standard form of the well-known SQL data language and works quickly and works well even with huge dataset
- Language: Python and Android Python is a popular programming language. It was created by Guido van Rossum, and released in 1991. It is used for: (a) web development (server-side). (b) software development.
- Operating System: Windows 8 and above Windows is the most widely used operating system for desktop and laptop computers.

CONCLUSION

The device proposed here is an interactive Application, which is capable of teaching multiple languages. We propose to develop interactive educational application which can run on the mobile. The application helps the user to learn to write as well as spell the alphabets. Initially the application teaches alphabets and then moves onto words and sentences. Most of the illiterate people of rural India rely on manual labor for their living and are unable to attend regular study classes. So, our system can be a convenient method for the users of rural India to become literate.

REFERENCES

1. Conference: Sixth International Conference on e-Learning (econf) "E-Learning System Model For University Education Using UML", Nunung Nurul Qomariyah, December 2020
2. 2018 4th International Conference on Optimization and Applications (ICOA), "A syntactic and semantic multi-agent based question answering system for collaborative e-learning", Abderrazzak Samadi; El Fazazi Hanaa; 2018
3. 2009 International Conference on Intelligent Agent Multi-Agent Systems, "A survey on service-oriented architecture for E-learning system", Rani S Jamuna; Marie Stanislas Ashok, 2009
4. Conference: 2015 Fifth International Conference on e-Learning (econf) "E-Learning Supporting System (ELS) in Nahda University in Upper Egypt: Case Study", Samia Mostafa Elazab, 2015
5. 2019 13th Iranian and 7th National Conference on e-Learning and e-Teaching (ICeLeT) Deep E-School-Nurse for Personalized Health-Centered E-Learning Administration:", Tannaz Karimi; Babak Majidi; Mohammad Taghi Manzuri, 2019
6. J. Qi, P. Yang, L. Newcombe, X. Peng, Y. Yang and Z. Zhao, an overview of data fusion techniques for Internet of Things enabled physical activity recognition and measure", Information Fusion, vol. 55, pp. 269-280, 2020.
7. P. Yang, J. Liu, J. Qi, Y. Yang, X. Wang and Z. Lv Comparison and Modelling of Country-level Microblog User and Activity in Cyber-physical-social Systems Using Weibo and Twitter Data", ACM Transactions on Intelligent Systems and Technology (TIST), vol. 10, no. 6, pp. 1-24, 2019 40
8. J. Qi, P. Yang, A. Waraich, Z. Deng, Y. Zhao and Y. Yang, "Examining sensor based physical activity recognition and monitoring for healthcare using Internet of Things: A systematic review", Journal of biomedical informatics, vol. 87, pp. 138-153, 2018.