

Web based E-Learning Platform using Cloud Computing

Milind Patil¹, Shweta Patil², Darshan Temkar³, Yogita Patil⁴,
Asso.Prof.Pramod B. Gosavi⁵

¹²³⁴B.Tech Student, Computer Engineering, Godavari College of Engineering, Jalgaon

⁵Head of Department, Computer Engineering, Godavari College of Engineering, Jalgaon, Maharashtra, India

Submitted: 05-06-2022

Revised: 17-06-2022

Accepted: 20-06-2022

ABSTRACT: currently that everything is accessible on the web, learning and upgrading new skills has become such a lot straightforward. Our online program additional makes the method even easier and seamless for the students. We tend to don't got to travel long distances for education. Our Cloud base E-learning System in PHP and MySQL offers you to upgrade your technical skills from the comfort of your home. This allows the administration of student learning and teaching activities facilitates the communication of students, teachers, body employees, and tutors. In this way, the system offers the likelihood of speeding up and simplifying the training method. This application is for the educators and faculty students that are working for online education work area.

KEYWORDS:Design, Cloud Computing, E-learning, Information Technology, E-Learning, Traditional E-Learning, Cloud E-Learning.

I. INTRODUCTION

Now a day, cloud computing and e-learning is rising quickly and plays a really very huge and powerful role within the field of education and learning. Because of this sensible phone users will perform their task simply and with effective manner with paying fewer prices by utilizing the cloud-based applications offered by the cloud service suppliers. Cloud computing in instructional field goes on the far side classrooms as a necessary service. The higher education, distance education, on-line education etc. uses the services of cloud computing for the flexibility out there for the scholars. There are several cloud computing services suppliers that offer support for instructional systems.

Among the mare Amazon, Google, Yahoo, Microsoft etc.In are presented the most benefits of victimisation cloud computing in colleges. the subsequent sections focus on cloud

computing ideas and also the edges of cloud computing for e-learning solutions. Also, the impact on e-learning solutions supported cloud computing project management is analysed. This is very important for the event of e-learning solutions supported cloud computing. by several researches and firms, solely few forms of these systems (mainly cam-based) are utilized on commercial vehicles because of the liability, durability and cost problems. Cam-based valve systems provide reliable and study practicality, the cam less valve trains will vary valve carry and a lot of timings to a greater extent scrutiny to the cam-based sorts. Among numerous classes of cam less mechanisms, the magnetic force mechanism system is that the most desired one.

II. CLOUD COMPUTING

Cloud computing is the use of computing resources (hardware and software) that are delivered as a service over a network. or Cloud Computing is a technology that uses the internet and central remote servers to maintain data and applications. Cloud computing allows consumers and businesses to use applications without installation and access their personal files at any computer with internet access. This technology allows for much more efficient computing by centralizing data storage, processing and bandwidth. The name comes from the use of a cloudshaped symbol as an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts remote services with a user's data, software and computation. Cloud computing provides different services rather than a unit of product. These services put forwarded 3 models: software as a service (SAAS), platform as a Service (PAAS), and infrastructure as a Service (IAAS)

1. SAAS: it's travel by cloud service supplier and mostly employed by organizations. It's out there to users through web.

2. PAAS: it's a tool (Windows, LINUX) used by developers for developing Websites while not installing any software system on the system, and can be executed with none body experience.

3. IAAS: it's operated, maintained and management by cloud service suppliers that support numerous operations like storage, hardware, servers and networking. There are four forms of cloud computing models listed: non-public cloud, public cloud, hybrid cloud and community cloud:

1. Public Cloud: it's for the overall public where resources, internet applications, internet services are provided over the web and any user will get the services from the cloud; Public Organizations helps in providing the infrastructure to execute the general public cloud.

2. Private Cloud: it's employed by the organizations internally and is for one organization, anyone within the organization will access the information, services and internet applications however users outside the organizations cannot access the cloud. Infrastructure of private cloud is totally managed and corporate information are absolutely maintained by the organization itself.

E-LEARNING BENEFITS

Many education institutions do not have the resources and infrastructure needed to run top E-Learning solution. This can be why Moodle and Moodle, the most important players within the field of e-learning software, have currently versions of the bottom applications that are cloud homeward-bound. E-learning is wide used today on completely different instructional levels: continuous education, company trainings, tutorial courses, etc.

There are various e-learning solutions from open source to commercial. There are at least two entities involved in an e-learning system: the students and the trainers. The students:

- Take online course, Live sessions
- Take exams
- Send feedback
- Send homework, projects
- The trainers:
- Deal with content management
- Prepare tests
- Assess tests, homework, projects taken by students
- Send feedback
- Communicate with students (forums).

III. FRAMEWORK FOR CLOUD BASED E-LEARNING

1. THE BASE LAYER OF E-LEARNING CLOUD

The base layer of e-learning cloud shares IT infrastructure resources and connects the big system pool on to provide services. Cloud Computing permits the hardware layer to run further like the net, to make the hardware resources shared and accessed as data resources in secure and scalable technique. Virtualization technology separates the physical hardware from code, which on one hand can produce computing and storage capacity of the prevailing server into smaller size and re-integration, to boost the employment and flexibility of IT resource; on the other hand can provide a typical interface for large-scale cloud computing integration that allows the publication of calculation. Rock bottom layer can provide the essential hardware resources for the platform layer, and the users could produce use of it as a result of a similar as using a local device to use.

2. THE PLATFORM LAYER OF E-LEARNING

Cloud With the support of the powerful hardware, platform layer carries out the tasks of data storage, computing and code development, and it will even succeed the tasks of completion of the original mass data storage, business intelligence processing then thereon square measure difficult to complete. Users can decide on the devices and conjointly the number of devices in step with the standard of dealing with the content. Virtualization technology enables the platform to denote a sturdy level of flexibility.

3. THE APPLICATION LAYER OF E-LEARNING

Cloud the applications code or services provided by a school or university, the students to pay among the similar technique of on-demand access, according to the amount to calculate the worth, complete the assembly, marketing, mercantilism and management. E-Learning cloud atmosphere provides user-oriented gift adaptive hardware resources, computing atmosphere and code services. In e-learning cloud space, users can access to digital services transparently at any time in anywhere. The users can acquire the desired network and computing services really naturally at any position. the information space and physical space square measure attending to be integrated because of gift computing capability. and conjointly this information terminals at the side of the embedded system instrumentality square

measure attending to be the vehicles of ecommerce among the long run.

IV. SYSTEM ARCHITECTURE

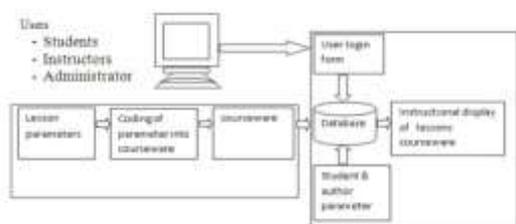


Figure : Cloud based e-learning system architecture

The design of the projected system is shown in below figure. The planning diagram shows the flow of the projected E-Learning System. There will be admin and user. Admin can dump the data in net application and manages, controls all the activities of the applying. The user should register among the web application ad fetch, view data that was additional by admin. The web application is hosted among the cloud server. Adding and enticing information by admin and user is completed by exploitation MySQL.

V. CONCLUSION

Cloud computing has recently emerged as a compelling paradigm for managing and delivering services over the online. the rise of cloud computing is speedily reascent landscape of Information technology and ultimately turning to the long-held promise of utility computing into a reality. Cloud computing can facilitate communities and nations, can transform kind education. an entire world of knowledge can no net created offered to teachers and students through cloud based services that can be accessed anytime, anywhere, from any device. By serving to countries worldwide, lowering the co stand simplifying the delivery of tutorial services, cloud computing permits students across the globe to accumulate the 21st-century skills and training they need to compete and accomplish the global information society.

Through the analysis we've a bent to believe that, we can turn out Associate in Nursing e-learning application model supported cloud computing by implies that of cloud computing's mass data storage, high-speed computing capabilities, still as its ideal allocation and conjointly the sharing mode of resources. Some problems like platform security, technical standards, regulatory and various services do not appear to be resolved but in practice, unfinished a

lot of analysis and exploration. Either way, e-learning application model supported cloud computing will not stop its pace to proceed. As the cloud computing technologies become further sophisticated and conjointly the applications of cloud computing become a lot of and a lot of widespread, e-learning will certainly inaugurate a replacement era of cloud computing.

REFERENCES

- [1]. P. Pocatilu, "Cloud Computing Benefits for Elearning Solution", *Oeconomics of Knowledge*, vol. 2, no. 1, (2010), pp. 9-14.
- [2]. U. J. Bora and M. Ahmed, "E-Learning using Cloud Computing", *International Journal of Science and Modern Engineering*, vol. 1, no. 2, (2013), pp. 9-12.
- [3]. T. R. M. N. Attlee M. Gamundani, "A cloud computing Architecture for E-learning Platform, Supporting Multimedia Content", *(IJCSIS) International Journal of Computer Science and Information Security*, , 2013.
- [4]. Sanjay Karak, Basudeb Adhikary "CLOUD COMPUTING AS A MODEL FOR DISTANCE LEARNING"
- [5]. *International Journal of Information Sources and Services*, Vol.2: july-aug 2015, issue 4.
- [6]. W. A. A. H. M. E.-B. N. S. Abu El-Ala, "Cloud Computing for Solving E-Learning Problems", *(IJACSA) International Journal of Advanced Computer Science and Applications*, 2012.