**Project Proposal**

**ENHACING LEARNING MANAGEMENT SYSTEMS (LMS) FOR ADAPTIVE, IMMERSIVE, AND DATA-DRIVEN EDUCATION.**

**BY**

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**INTRODUCTION**

Education is undergoing a profound transformation in the digital age. As information technology continues to advances at an unprecedented pace, so to do the expectations of the students and educators. Learning Management Systems (LMS) have emerged as essential tools for delivering, managing, and enhancing the learning experience. However, the landscape of education is evolving rapidly, and the conventional paradigms of LMS must evolve with it to remain relevant.

**AIMS AND OBJECTIVES**

The primary objective of this research proposal is to design, develop, and implement an innovative Learning Management System tailored to the unique needs of the Faculty of Computing at Bayero University Kano. This enhanced LMS will serve as a model for adaptive, immersive and data-driven education and contribute to the continuous improvement of the learning experience. The secondary objectives include;

* **Facilitate Seamless Course Management**:

Streamline the creation, organization, and delivery of courses, ensuring a user friendly and intuitive experience for educators.

* **Enhance Learner Engagement:**

Implement interactive features, multimedia support, and collaborative tools to create engaging learning experiences that captivate and inspire learners.

* **Promote Flexibility and Accessibility**:

Optimize the platform for mobile use, enabling learners to access educational content anytime, anywhere. Ensure compatibility across various devices for a flexible learning experience.

* **Provide Robust Analytics and Reporting**:

Deliver comprehensive analytics tools to track learner progress, engagement, and assesement performance. Provide insightful reports to educators and administrators for data-driven decision making.

* **Support Diverse Learning Styles**:

Incorporate a variety of content formats, including text, multimedia, quizzes, and interactive elements, to accommodate different learning preferences and styles

**BACKGROUND OF STUDY**

The Faculty of Computing at Bayero University Kano recognizes the paramount importance of keeping pace with the ever-evolving educational technology landscape. In this era of information abudance and technological progress, students and educators alike seek learning solutions that are adaptive, immersive, data-driven, and capable of providing a personalized experience. While conventional LMS have served as valuable tools for content delivery and assessment, they must now be reimagined to meet the demand of contemporary Education.

**RESEARCH PROBLEM**

The core challenge addressed by this research proposal lies in the perception that existing Learning Management System may fall short in providing a holistic, forward-looking, and adaptive learning experience. The research problem therefore centers on the need to enhance the Faculty of Computing’s LMS to align with modern pedagogical trends and technological advancements. It is imperative to address this issue comprehensively to ensure that our students are equipped with the best possible tools and environment for their educational journey.

**SIGNIFICANCE OF THE STUDY**

* **Enhanced Learning Experience**:

LMS platforms enable interactive and engaging experiences though a multimedia element, such as videos, quizzes, and gamified activities. The incorporation of multimedia content not only enhances learner engagement but also caters to diverse learning styles, leading to improved knowledge retention and better learning outcomes.

* **Centralized Learning**:

An LMS serves as a centralized platform for all learning resources, materials, and assessments. This approach ensures consistency in content delivery and makes it easier for learners to access relevant resources at their convenience.

* **Cost Savings**:

An LMS can save an organization time and money. Instead of traditional face-to-face training, online training systems allow employees to learn at their leisure, reducing the need for remote or distributed employees to travel. They also mean individual employees can study at a time that suits them

**DEFINITION OF TERMS**

* **Learning Management System (LMS)**:

A learning management system is a software application or web-based technology used to plan, implement and assess a specific learning process.

* **Adaptive Learning**:

Is an educational method that uses computer algorithms and artificial intelligence to personalize learning experiences for individual students based on their current skill and knowledge . The goal of adaptive learning is to provide students with a more effective and efficient learning experience by tailoring the content, sequence, and assessment to meet their individual needs.

* **A.I**:

Known as artificial intelligence in full and can be defined as the branch of computer science that deal with writing computer programs that can solve problems creatively.

* **User experience design (UX design)**:

Is the process of defining the experience a user would go through when interacting with a company, its services and its products, UX design decisions are often driven by research data analysis and test result.

* **Social Learning**:

Is a philosophy that people can learn from each other through observation imitation and modeling. Social learning theory suggests that social behavior is learned by observing and imitating the behavior of others.