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**ABSTRACT**

**Personalized Learning Platform using Artificial Intelligence (LearnLab)** is a web-based system designed to deliver tailored learning experiences to students, enhancing their educational journey by offering personalized study material recommendations. The platform leverages artificial intelligence to analyze each student's learning behavior, preferences, and performance data to generate customized content that aligns with their academic needs.

The system comprises three main modules: **Admin**, **Teacher**, and **Student**.

The **Admin** is responsible for managing the platform, overseeing the system’s operations, and viewing analytical data such as student progress and AI-generated insights. **Teachers** can upload educational content, monitor students' performance, and provide personalized feedback based on AI-driven suggestions. **Students**, the core users of the platform, receive study recommendations in real-time, track their progress, and access tailored materials that help them improve their learning outcomes.

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**LIST OF ABBREVIATIONS**

* **AI - Artificial Intelligence**
* **CSS – Cascading Style Sheets**
* **DFD - Data Flow Diagram**
* **HTML - Hypertext Markup Language**
* **PHP - Hypertext Preprocessor (formerly Personal Home Page)**
* **ML - Machine Learning**
* **NLP - Natural Language Processing**
* **IDE - Integrated Development Environment**
* **SQL - Structured Query Language**
* **UML - Unified Modeling Language**
* **UI - User Interface**
* **PLP - Personalized Learning Platform**