**Software Requirements Specification**

**For project LearnHub**

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**November 11, 2024**

**2. Overall Description**

**2.1. Product Perspective**

Our online learning platform represents an innovative solution designed to address the limitations of existing online learning systems in Vietnam. With a focus on providing high-quality educational resources and clear learning pathways, our platform offers a comprehensive and user-friendly interface for learners of all ages. Key components include intuitive main and search pages for seamless course discovery, a dedicated Course Manager Dashboard for efficient course creation and management, an Admin Dashboard for centralized platform administration, and integrated payment processing interfaces for secure transactions. Our platform empowers users to tailor their learning journeys according to their preferences and pace, fostering personalized and effective learning outcomes. With multi-device accessibility, our platform ensures convenience and accessibility for users across different devices and operating systems. Overall, our platform serves as a comprehensive solution for individuals seeking quality online education in Vietnam.

**2.2. User Classes and Characteristics**

**For Students:**

* LearnHub offers a diverse range of online courses tailored to individual interests and learning goals.
* Students can easily browse, enroll in, and participate in courses through an intuitive platform.
* Feedback mechanisms allow students to provide input on courses and instructors, ensuring a high-quality learning experience.

**For Course Managers:**

* Course managers have the tools to create, manage, and monitor courses effectively.
* They can upload course content, schedule sessions, and track student progress to ensure an engaging learning environment.
* Interaction with students allows course managers to provide support and guidance throughout the learning journey.

**For Admins:**

* Admins play a crucial role in maintaining the integrity and functionality of the LearnHub platform.
* They oversee user accounts, manage payment activities, and ensure compliance with platform guidelines.
* Strategic decision-making helps shape the direction and growth of LearnHub, ensuring its continued success in delivering quality online education.

**2.3. Operating Environment**

* Our system will be a web application developed with Angular, using Visual Studio Code. The back-end will be written in Java, utilizing the Spring Boot framework in IntelliJ, and connect together via API.
* The database will be built on a standard SQL platform, utilizing SQL Server.
* Users, including students and instructors, can access the platform on the internet using browsers such as Google Chrome (version 100 to 118) and Microsoft Edge (version 100 to 188).

**2.4. Design and Implementation Constraints**

CO-1: The system’s design, code, and maintenance documentation shall conform to the *Process Impact Intranet Development Standard, Version 1.3* [2].

CO-2: The system shall use the current corporate standard Oracle database engine.

CO-3: All HTML code shall conform to the HTML 5.0 standard

**2.5. Assumptions and Dependencies**

or our system, the following design and implementation constraints apply:

* **Data Storage:** We utilize Microsoft SQL Server for data storage to ensure quality, durability, and reliability.
* **Website Functionalities:** All website functionalities are implemented using a RESTful API architecture with Spring Boot for the backend and Angular for the frontend. This choice ensures flexibility, scalability, and ease of maintenance.
* **Query-Data Retrieval (QDR) Performance:** Our system must efficiently process all user-generated data updates within a reasonable timeframe to maintain responsiveness and user satisfaction.
* **Setup and Maintenance:** The setup and maintenance of our system involve tasks such as installation, hosting, host-security configuration, and ongoing administration to ensure smooth operation and security.