e-Learning Team Development Process Guidelines

Introduction

Introduction on e-Learning Development information

Purpose of the document

Welcome to the System Development Documentation, a comprehensive guide aimed at ensuring consistency, efficiency, and security in our software development lifecycle. This document serves as a centralized reference for all team members involved in the development, testing, and deployment phases of our systems.

Objectives

The primary objectives of this documentation are as follows:

1. **Standardization:** Establish a standardized and transparent process for system development to enhance collaboration and reduce inconsistencies across the team.
2. **Knowledge Transfer:** Facilitate knowledge transfer by providing detailed information about the development environment, tools, and procedures followed at each phase of the development lifecycle.
3. **Security Compliance:** Align our development practices with the Information Security Management System (ISMS) standard in Malaysia to ensure the confidentiality, integrity, and availability of our systems and data.
4. **Efficiency Improvement:** Streamline the development, staging, and production processes, leading to increased efficiency, reduced errors, and faster delivery of high-quality software.

Target Audience

This document is intended for:

- Developers
- Testers
- DevOps Engineers
- Project Managers
- Security and Compliance Officers

Scope

The scope of this document covers the entire lifecycle of system development, from the initial coding phase through testing, staging, and deployment to the production environment. It also addresses compliance with the ISMS standard in Malaysia.

Overview of the system development process

The document is structured into sections, each focusing on a specific aspect of the development process. From the development environment setup to ISMS compliance, this document aims to provide a holistic view of our system development practices.

By adhering to the guidelines outlined in this documentation, we aim to achieve a consistent and secure development process that aligns with industry best practices and regulatory requirements. Your commitment to following these standards is crucial for the success of our projects and the overall security of our systems.

Thank you for your dedication to maintaining the highest standards in our system development practices.

Development Environment

Development environment overview

Our development environment is carefully configured to provide a robust platform for efficient and collaborative software development. It consists of a set of key components and infrastructure to support the development lifecycle.

Development Tools

Programming language and frameworks

Key Components

Development Servers: Low-performance servers dedicated to hosting development environments.

The development servers consist of servers that are managed by the developer, either using an XAMPP server that is locally setup in the developer computer environment or virtually setup using a virtual box. Currently, the suggested setup is as below :

- Ubuntu 22.04
- Openlitespeed
- Percona MySQL 8.0
- Memory : Bigger than 8GB
- Storage : Bigger than 250GB

Currently, we have an old MacBook Pro as development server that can be accessed locally using ip **192.168.110.55**

The development server is setup using Virtual box with above specification

Development phase

Development phase

Coding Standards

Development phase

Version Control

Development phase

Testing Procedures

Development phase

Code Reviews

Staging Phase

Staging Environment

Staging Phase

Testing Procedures

Staging Phase

Deployment process

Production Phase

Production Environment

Deployment Procedures

Monitor and Logging

Conclusion

Summary