Documentation of the program code

Course Management System

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Data: 10/11/2024

# History of technical documentation

**Author**

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**Version history**

| Version | Data | Author | Description |
| --- | --- | --- | --- |
| 1.0 | 10/11/2024 | Kürşat Aydın | Group meetings were held to decide on project requirements. Collaborated with the team to identify key functionalities of our project. |
| 1.2 | 15/11/2024 | Kürşat Aydın | Testing our database query test.  Informing teammates HTML injections to make it more secure. |
| 1.3 | 25/11/2024 | Kürşat Aydın | Tested database structure with administration privileges to prevent some unwanted authentication issues |
| 1.3 | 29/11/2024 | Kürşat Aydın | Database tests were reviewed with t  Understanding SQL injection risks informing database programmer about SQL injections |
| 1.4 | 02/12/2024 | Kürşat Aydın | Make the last database test with other tester |
| 1.5 | 10/12/2024 | Kürşat Aydın | Finalized database structure and ensured all project requirements were met. |

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# Introduction

In this project, I aim to check the functionality, usability, and reliability of the application, as well as to find and fix any potential issues and bugs.

# Testing

The testing process focuses on the following modules:

* **Authentication:** User login, registration, user privileges
* **Course Management:** Course creation, enrollment, updating
* **User Interaction:** Student and teacher dashboard, course materials

**Test plan of the project**

1. Requirement Analysis and Test Planning
2. Designing and Reviewing Test Cases
3. Test Case Execution
4. Bug Reporting and Retesting

In this project, I tested the UI/UX to make it more user-friendly.

Made security tests for the project. For example, making changes to the front-end improved the overall user experience, making it more efficient to use.

Finding a bug in course creating that allows to add a lesson more than one time.

Students was able to manage courses like teacher there was an Role-Based Authentication error.

Testing the project's security helped enhance its overall safety.

Reporting bugs to my teammates allowed us to work more efficiently and in an organized manner.

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**Error Message:**

"CHECK constraint failed: credit\_hours."

**Cause:**The credit\_hours column must have a positive value, enforced by a CHECK constraint.

**Solution:**Provide a valid positive value:

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**metin, ekran görüntüsü, yazı tipi, çizgi içeren bir resim

Açıklama otomatik olarak oluşturuldu**

**Error Message:**"Deadlock found when trying to get lock; try restarting transaction."

**Cause:**Two transactions are trying to lock resources in an overlapping manner, causing a deadlock.

**Solution:**Access resources in a consistent order and commit the first transaction before starting the second:

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