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# Bauhaus- Universität Weimar

## HANDOVER -2

LEARN BUDDY

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## Project Overview:

Learning Buddy is an educational application designed to facilitate learning through quizzes and access to general information. The project aims to provide users with an engaging platform to enhance their knowledge in various subjects.

## Previous Implementation:

The initial implementation of Learning Buddy featured a Command Line Interface (CLI) written in Java. Users interacted with the application through text-based commands, selecting quiz categories and difficulty levels.

## Enhancements:

### 1. Improved CLI Code:

- Features:
  - Refactored code for improved readability and efficiency.
  - Added error handling to enhance user experience.
  - Implemented a database for storing quiz data, allowing for easier management and scalability.
  - Implemented random question ordering
- Pros:
  - Enhanced user experience with improved error handling.
  - Increased flexibility and scalability with database integration.
- Cons:
  - Limited visual appeal compared to a graphical interface.
  - Requires familiarity with command-line interfaces.

### 2. New GUI Code:

- Features:
  - Implemented a Graphical User Interface (GUI) using JavaFX for improved usability.
  - Integrated features such as reading general information and starting quizzes directly from the GUI.
  - Enhanced user feedback mechanisms with visual effects for correct and incorrect answers.
- Pros:
  - Improved accessibility and usability with a user-friendly GUI.
  - Enhanced visual appeal and interactivity for a more engaging user experience.
- Cons:
  - Requires additional development and testing efforts compared to CLI implementations.

## Conclusion:

Learning Buddy has undergone significant enhancements, transitioning from a text-based CLI to a more user-friendly GUI. While the CLI implementations offered functionality, the introduction of the GUI has greatly improved accessibility and usability. Future development efforts could focus on further refining the GUI, integrating additional features, and addressing user feedback to continue improving the overall learning experience.

## Recommendations:

1. Conduct user testing to gather feedback on the new GUI and identify areas for improvement.
2. Continuously monitor and address any performance issues or bugs that may arise.
3. Consider expanding the application's features, such as adding multimedia content or social sharing capabilities, to enhance user engagement.
4. Document the development process and maintain thorough documentation for future reference and troubleshooting.

## Enhancements Ideas:

- Some TO DO comments remained in code
- GUI visual improvements
- Methods revamp for better object-oriented operation -> front/back structure division
- Lives visibility to user
- Profile creation (from initial project description) -> quiz history (logging)
- Text to speech (from initial project description)

## References:

For detailed maintenance procedures, refer to the maintenance.pdf file accompanying this handover document.