



PLATFORM FOR CREATING QUIZZES FROM DIVERSE SOURCES, WITH AUTOMATED QUESTION MIXING AND SECURE DATA HANDLING



RATIONALE

There are numerous reasons for selecting this research topic, but we would like to highlight the following key points:

1. **Time efficiency:** A test shuffling software can automatically generate exams swiftly. This reduces the manual effort required by teachers to create traditional exams, from writing questions to calculating scores.
2. **Accuracy:** A test shuffling software ensures accuracy and consistency in grading. Exams are graded based on pre-programmed rules, eliminating human error and bias.
3. **Diversified testing:** Test shuffling software enables the creation of various question types, including multiple-choice, fill-in-the-blank, true/false, sequencing, drag-and-drop, and more. This enhances the creativity and diversity of teacher-made assessments.
4. **Data management:** Test shuffling software provides an automated database to manage questions and exam results. Teachers can easily access and manage data to track student progress and improve the teaching process.

In conclusion, developing test shuffling software is not only an interesting topic but also offers significant benefits for education and exam management. It supports the optimization of the learning process and the evaluation of student performance.

SCIENTIFIC BASIS, TECHNICAL BASIS AND TECHNICAL OBJECTIVES



In conclusion, the test shuffling software can have various objectives, ranging from enhancing test diversity to supporting self-study and self-assessment. It is crucial to reflect the specific needs of users and develop the product to best meet these goals.

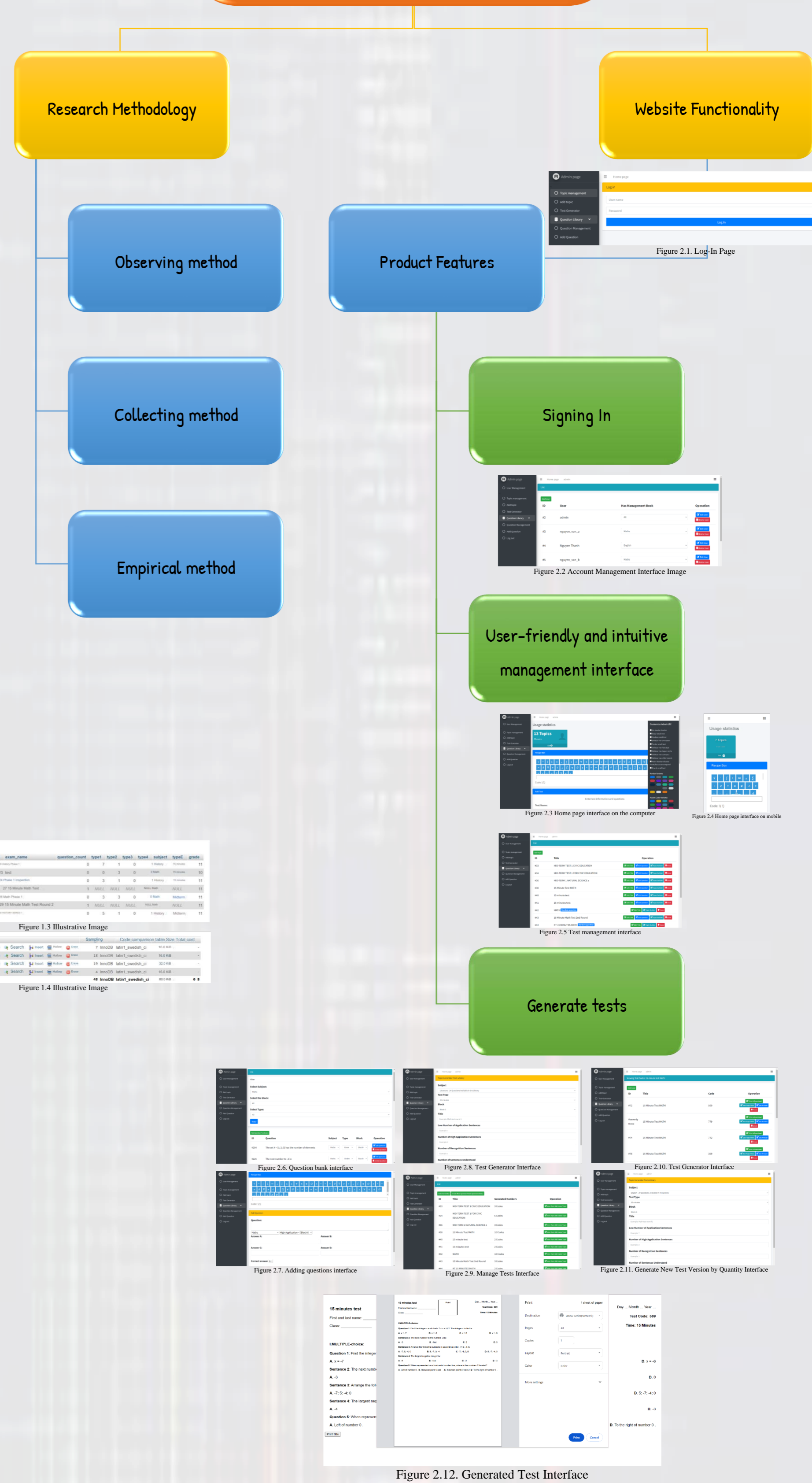
Compared to other test shuffling softwares on the market, our software has undergone numerous enhancements to better align with the modernization of education:

- Firstly, our product can generate an unlimited number of test versions, each with its corresponding answer key.
- Secondly, our product features access control, allowing only authorized subject teachers with a specific account to access and view questions in the question bank. Additionally, we utilize MD5 encryption (a widely trusted encryption method) to ensure absolute security for the product's question bank.
- Thirdly, the product is presented as a web-based platform, which eliminates the need for local installation and requires only internet access and authorization for usage.
- Fourthly, the question bank is stored using cloud storage, enabling the creation of an incredibly rich and diverse question bank.
- Finally, our product can be used by multiple schools and regions due to its web-based nature, allowing for collaborative development of a shared question bank among schools.

REFERENCES

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RESEARCH METHODOLOGY AND WEBSITE FUNCTIONALITY



CONCLUSION

Novelty and Ingenuity

- Establishment of a large database, storing a diverse range of questions suitable for most multiple-choice tests, which has not been achieved by any website before.
- Ability to generate an unlimited number of test versions for multiple-choice tests.
- Function of authorization and strict limitation of content for each subject.

Practicality

- The project has been piloted in creating multiple-choice tests at school and received positive feedback.
- The project aligns with the trend of educational digitalization.
- The project is suitable for the majority of schools and multiple-choice testing formats.

Significance

- The project enables tests with diverse versions and questions.
- The project supports schools in conducting periodic assessments and evaluating student quality fairly, transparently, and objectively.
- The project serves as a valuable assistant in preventing cheating during exams and tests.

RESEARCH OVERVIEW

The research process of the project went through various stages, and multiple challenges and difficulties were faced in each stage. The idea for this project was conceived from the fact that the number of test versions in exams was limited and not truly fair in the assessment process. We started by researching test shuffling algorithms, then software formats, and chose the website format. We continued to face security issues but resolved them with md5 encryption and authorization features. Finally, we built the website using three main programming languages: HTML, PHP, and CSS; after completing the website, we started testing the product with support from the school and teachers.