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Askify – AI Driven Smart Questioning System

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Abstract—This paper presents the project titled "Askify," a smart question collection and assessment creation system designed to help educators, trainers, and learners efficiently create, manage, and share question sets. The main objective of Askify is to transform raw subject notes and learning materials into organized and reusable question collections. In many educational environments, valuable study content remains unused due to the absence of proper tools for organizing and reusing questions. Askify addresses this problem by enabling users to import or upload notes, organize questions into collections, search and filter them by topic and difficulty level, preview and edit individual questions, and perform bulk actions. The system allows curated question sets to be exported in formats such as PDF and Excel for printing or sharing. With simple workflows and a user-friendly interface, Askify helps users quickly convert unstructured materials into ready-to-use quizzes, practice packs, and shared study lists.

***Index Terms*—Question Generation, Assessment Creation, Study Material Processing, Question Management, Learning Support System.**

1. Introduction

This paper presents the project titled "Askify," a smart question collection and assessment creation system designed to help educators, trainers, and learners efficiently create, manage, and share question sets. The main objective of Askify is to transform raw subject notes and learning materials into organized and reusable question collections. In many educational environments, valuable study content remains unused due to theabsence of proper tools for organizing and reusing questions.

Askify addresses this problem by enabling users to import or upload notes, organize questions into collections, search and filter them by topic and difficulty level, preview and edit individual questions, and perform bulk actions. The system allows curated question sets to be exported in formats such as PDF and Excel for printing or sharing. With simple workflows and a user-friendly interface, Askify helps users quickly convert unstructured materials into ready-to-use quizzes, practice packs, and shared study lists. Assessment creation is a vital process in education and training. However, traditional methods using documents and spreadsheets are time-consuming and offer limited reusability. Askify provides a centralized solution for organizing and managing question banks, enabling efficient and flexible assessment preparation for educators, trainers, and learners.

2. Literature Review

Assessment creation is a vital process in education and training, as it plays an important role in evaluating learners' understanding, skills, and learning outcomes. However, traditional methods that rely on documents and spreadsheets are time- consuming, difficult to organize, and offer limited reusability of questions. Managing large volumes of questions using such approaches often results in duplication, inconsistency, and increased manual effort. Askify provides a centralized and structured solution for organizing, managing, and reusing question banks efficiently.

The system enables users to categorize questions based on topic and difficulty level, easily search and edit content, and prepare assessments in a systematic manner. By streamlining the assessment workflow, Askify improves productivity and supports educators, trainers, and learners in creating reliable and effective evaluations [1].

Whitelock and Watt discussed the role of structured digital assessment tools in improving consistency, reliability, and transparency in educational evaluations. Their research highlighted that technology-enhanced assessment systems enable timely, continuous, and personalized feedback, allowing learners to clearly understand their performance and learning progress. Such feedback mechanisms encourage self-reflection and support active learning by helping students identify knowledge gaps at an early stage. The authors also emphasized that digital assessment tools promote standardized evaluation practices, ensuring fairness and reducing subjectivity in grading. Furthermore, automation of assessment processes significantly reduces the manual workload of educators, minimizes human errors, and improves administrative efficiency. By integrating structured workflows and feedback mechanisms, technology- enhanced assessment systems improve learner engagement, support effective instructional strategies, and contribute to overall improvement in teaching and learning outcomes [2].

Wiley emphasized the importance of reusable learning objects, stating that structured and reusable content significantly improves instructional efficiency and adaptability. His research highlighted that well- organized learning objects allow educators to reuse, modify, and repurpose content across different courses and learning contexts, reducing duplication of effort. Reusable content also supports flexible instructional design by enabling rapid updates and customization based on

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learner needs. Furthermore, Wiley noted that standardized and modular learning resources enhance scalability in digital learning environments and contribute to consistent learning experiences, making them particularly effective for assessment and question bank systems [3].

Research by Alruwais et al. demonstrated that online assessment systems significantly reduce instruct workload while simultaneously enhancing student engagement, participation, and learning outcomes.

Their study highlighted that features such as centralized question banks, automated scoring, instant feedback, and progress tracking minimize repetitive administrative tasks for educators, freeing time for instructional planning and personalized support. The authors further noted that online assessment platforms improve transparency and consistency in evaluation by standardizing grading and providing detailed analytics on student performance. Students benefit from interactive assessment formats, immediate performance insights, and the flexibility to access assessments at their convenience, which enhances motivation and encourages active learning. Moreover, these systems support adaptive learning by allowing educators to tailor question difficulty and content based on individual learner progress, thereby addressing diverse learning needs. The study concluded that the integration of online assessment tools strengthens the overall teaching and learning process, promotes effective instructional design, and increases educational efficiency, making digital assessment platforms an essential component in modern educational environments [4].

Kundu and Bej emphasized that digital assessment platforms play a crucial role in supporting flexible learning environments and scalable evaluation methods. Their research highlighted that such platforms enable assessments to be conducted anytime and anywhere, making them highly suitable for blended and online learning models. The authors noted that digital assessment systems allow institutions to manage large numbers of learners efficiently without compromising evaluation quality. Features such as automated grading, centralized question management, and analytics-driven performance monitoring were found to enhance scalability and consistency. Furthermore, the study emphasized that digital platforms support inclusivity by accommodating diverse learning needs and providing adaptable assessment formats. The researchers also observed that digital assessment tools promote continuous assessment strategies by enabling frequent evaluations and instant feedback. This approach helps learners track their progress over time and supports instructors in identifying learning gaps at an early stage. Efficient management, digital assessment platforms contribute significantly to sustainable, data-driven, and learner-centered educational practices [5].

3. Existing System

Existing assessment preparation methods primarily depend on manual and semi-digital tools such as word processors, spreadsheets, and printed documents. While these tools are widely accessible and easy to use, they lack the intelligence and flexibility required to manage large and diverse question banks efficiently. Questions are usually stored in unstructured formats, making it difficult to organize them based on subject, topic, difficulty level, or learning outcomes. The absence of advanced features such as intelligent search, filtering, tagging, and bulk editing significantly increases the time required to locate, modify, or reuse questions. Educators often create and store multiple versions of similar question papers to meet different assessment needs which leads to redundancy, inconsistency, and difficulty in maintaining updated content. Manual tracking of changes further increases the chances of human error, such as missing questions, incorrect formatting, or duplication. Additionally, existing systems provide minimal support for collaborative work. Sharing question papers or question banks among educators usually involves email or external storage devices, which lack version control and security. This limits effective collaboration, transparency, and standardization in assessment design. The absence of centralized storage also makes data management and backup challenging, increasing the risk of data loss. Furthermore, manual assessment preparation does not support analytics or insights that could help educators evaluate question quality, balance difficulty levels, or align assessments with curriculum objectives. As a result, the overall assessment process becomes time-consuming, error- prone, and inefficient, ultimately reducing productivity and affecting the quality of evaluations.

4. Proposed System

The proposed Askify system provides a centralized and structured platform for managing question collections efficiently. Users can import or upload subject notes and organize extracted or manually added questions into well-defined collections. The system allows questions to be filtered based on topic, difficulty level, and relevance, enabling users to quickly identify suitable questions for specific assessments. Inline editing features allow users to modify question text, answers, and metadata without navigating away from the workspace. Askify also support bulk operations such as selecting, moving, tagging, or deleting multiple questions at once, significantly reducing

manual effort. Additionally, the system enables users to export curated question sets in formats such as PDF and Excel, making them suitable for printing, offline use, or sharing with others. The proposed system enhances productivity, promotes reusability of assessment content, and supports efficient assessment preparation for educators, trainers, and learners.

5. Methodology

The methodology follows a structured and systematic development approach that includes requirement analysis, system design, implementation, and testing. During the requirement analysis phase, the needs of educators, trainers, and learners are carefully examined to identify functional requirements and limitations of existing assessment preparation methods. This phase helps in defining clear objectives, system scope, and performance expectations. Based on the analyzed requirements, the system architecture, data models, and user

workflows are designed to ensure efficient organization, retrieval, and reuse of question collections. Special attention is given to designing simple and intuitive workflows to minimize complexity and reduce the learning curve for users. Functional testing is performed to verify the correctness, reliability, and consistency of question management and export features. In addition, usability testing is conducted to assess interface clarity, ease of navigation, and overall user experience. Feedback obtained during testing is analyzed and incorporated into system improvements, ensuring that Askify delivers a reliable, efficient, and user-friendly solution for assessment creation and management.

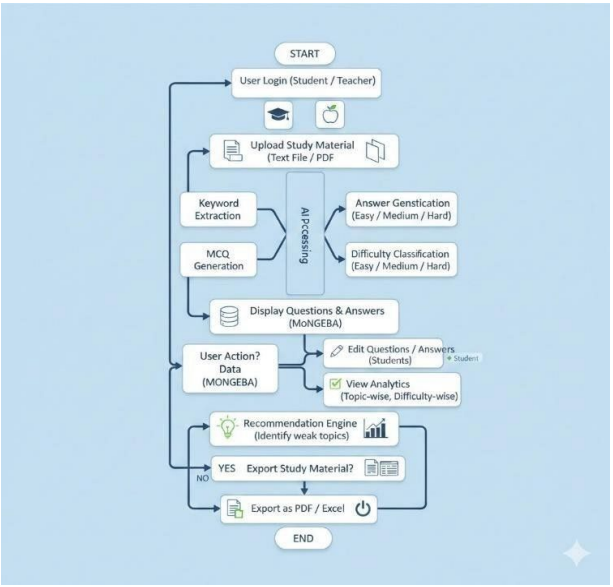

Fig. 1. Methodology flowchart

6. Experimental Result

Fig. 2.

Home Page: A Home page serves as the main entry point of the project.

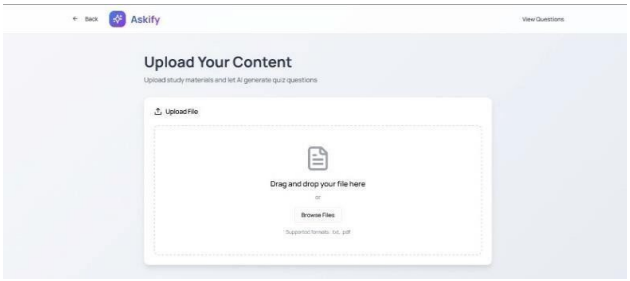

Fig. 3.

Upload Pdf Page: This page enables users to upload PDF documents.

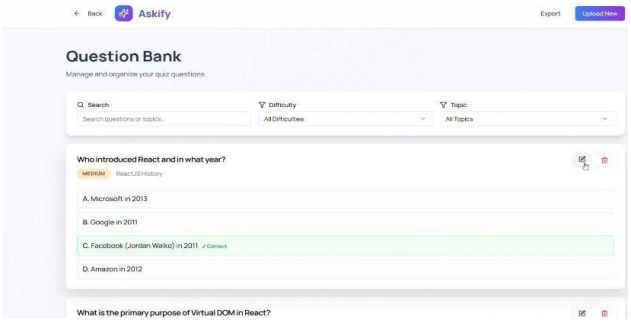

Fig. 4.

Assessment Quiz Page: A page where users view and interact with quiz questions.

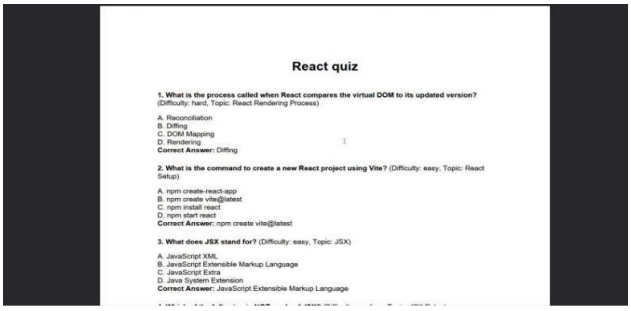

Fig. 5.

Pdf Extract and Edit Page: This page enables users to extract content from PDF documents and edit questions or metadata before saving them into organized collections.

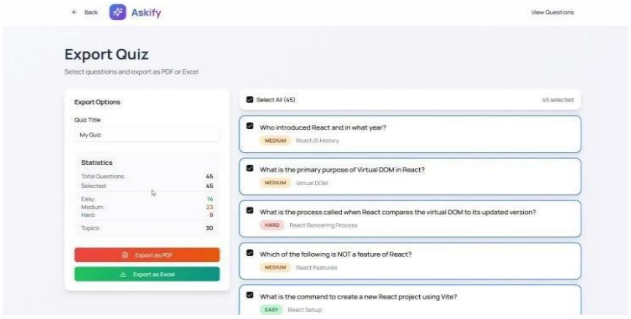

Fig. 6.

Quiz Extract Page: This page enables the extraction and organization of questions into a quiz ready format for assessment and learning purposes.

7. Conclusion

The Askify system represents a meaningful step toward enhancing the efficiency, organization, and reliability of assessment preparation in educational and training environments. By effectively leveraging digital technologies, the system bridges the gap between unstructured learning materials and structured, reusable question collections, enabling a smooth and systematic assessment workflow. Its

user-friendly interface, centralized question management, and flexible export options ensure accessibility for educators, trainers, and learners with varying levels of technical expertise. Beyond simplifying assessment creation, Askify promotes consistency, reusability, and accuracy in evaluation processes, reducing manual effort, redundancy, and human error. Furthermore, the platform supports better assessment planning and content management, contributing to improved teaching effectiveness and learner engagement. As the system evolves through continuous feedback, collaboration, and innovation, it has the potential to transform traditional assessment practices and support scalable, efficient, and data-driven approaches to learning evaluation in modern educational settings. Innovation, it has the potential to transform how society addresses everyday challenges—shifting from isolated acts of help to coordinated collective action. The structured and well-informed communication enabled by this project can serve as a model for future social initiatives.

8. Future Works

Looking ahead, Askify aims to expand its features, reach, and impact to support educators, trainers, and learners more effectively. Future enhancements will include the integration of AI-based question generation and recommendation systems to suggest relevant questions and optimize assessment creation. A dedicated mobile application will be developed to enable on-the-go access, particularly for users in remote areas or with limited access to desktop devices. Multilingual support and accessibility features such as screen readers and voice-assisted navigation will be introduced to accommodate users with varying literacy levels and special needs. Integration with learning management systems (LMS) and cloud-based storage will enhance collaboration, enable seamless sharing of question collections, and provide real-time performance analytics. A comprehensive dashboard will allow administrators and educators to monitor question usage, learner engagement, and assessment effectiveness. Additionally, collaborative features, version control, and user activity tracking will support teamwork and ensure content integrity. Future development will also focus on scalability, adaptive assessments, and advanced reporting tools to meet the evolving demands of modern education and training. Through these advancements, Askify will continue to promote efficiency, reusability, and a data-driven approach to creating high-quality assessments.

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