

ONLINE ASSESSMENT AND REPORT CARD FOR SCHOOL

Mr. Devanshu Sarode

PG Scholar

Department of Computer Science,
G. H. Rasoni University Amravati, Maharashtra, India

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Abstract : The In the digital age, learning experiences and productivity must be improved by the integration of technology into the classroom. This abstract offers a novel approach that seeks to use an internet platform to revolutionize the way schools now conduct assessments and report cards. Traditional paper-based surveys can be seamlessly converted to a dynamic, interactive online survey environment with our suggested framework. Numerous features are included in it, such as real-time feedback methods, automated grading, and configurable assessment templates. Moreover, the platform facilitates teachers in monitoring students' advancement and pinpointing areas that require enhancement by means of comprehensive evaluations and performance metric Additionally, by instantly updating and making modifications to customized report cards, our technology promotes open communication between educators, students, and parents.

Index Term – Mongo DB, React JS, Node JS, Express JS, Online assessment, Report card, Automated grading, Real-time feedback, User-friendly interface

I. INTRODUCTION

Integration of technology as a means of improving teaching and learning processes has increased. With the advent of online learning platforms, schools are using digital resources to support a variety of educational activities, including assessment and methodology The use of online assessment is one such innovation that provides greater assessment, change and access. This project will develop an integrated system for online assessments in schools to create report cards based on student achievement on these assessments.[1] Using technology, the program seeks to improve the evaluation process by addressing shortcomings in traditional testing systems. Lack of time, lack of resources, and the possibility of mathematical errors are just a few of the logistical challenges that traditional pen-and-paper methods often pose for teachers and students. This project will develop an integrated system for online assessments in schools to create report cards based on student achievement on these assessments.

II. RELATED WORK

In order to make online learning and working together easier, systems for managing education, or LMS, have become widely used in educational contexts. Numerous learning management system platforms, including Module, Canvas, and Blackboard, provide online grading and assessment tools[1] Teachers can use this system to create and give online quizzes, examinations, and assignments, among other types of assessments. Additionally, they give pupils the resources they need to grade and offer comments. Teachers can view student performance over time, record assignment grades, and compute overall course grades with the grade book.

tools found in many LMS platform.

Student Information System (SIS): Schools utilize Sis, or student information systems, to handle all kinds of student data, [2]such as grades, enrolment, and attendance. Report card transcripts can be created by schools using modules found on many SIS platforms, which enable them to compile formal reports that highlight student achievement. To make data sharing and teamwork easier, SIS systems are frequently connected with other [3].

EdTech Startups and firms: Creating online grading and evaluation tools for educational institutions is a growing area of expertise for EdTech startups and firms. Designed for easy-to-use instructors, these companies provide [4-5] platforms that incorporate sophisticated assessment capabilities like automatic grading, question banking, and plagiarism detection.

III. PROPOSED WORK

Global Module for Assessment: Provide a user-friendly interface so that educators may design and oversee assessments. Include options to add questions, schedule assessments, and establish parameters. Permit the import of questions from external sources, such as question banks. Enable real-time tracking of ongoing assessments.

Grading and Scoring: Put mechanisms in place to automatically grade objective questions. Provide interfaces that allow educators to manually grade arbitrary questions and offer comments. Based on assessment results, weighting, and grading standards, determine overall grades. Keep track of every student's specific grading data.

Create digital report card templates that include sections for behaviour, attendance, grades, and comments. Create report cards on the fly using data from assessments and other sources. **Report Card Generations:** Compile parts on awards, attendance, actions, and comments into templates for digital report cards. Make energetic report cards with additional data and study findings. Make report card templates according to the goals and grading schemes of the school. Permit newsletters to be exported in many formats and printed. Schools must use a disciplined approach when creating an online report card.

Validation: The online assessment report card system for schools must pass stringent testing and verification procedures in order to be certified as meeting educational requirements. To find and fix any problems, the system will be put through rigorous security testing to ensure data integrity and privacy, user input will be gathered to gauge efficacy and efficiency, and the system will be tested in real-world circumstances.

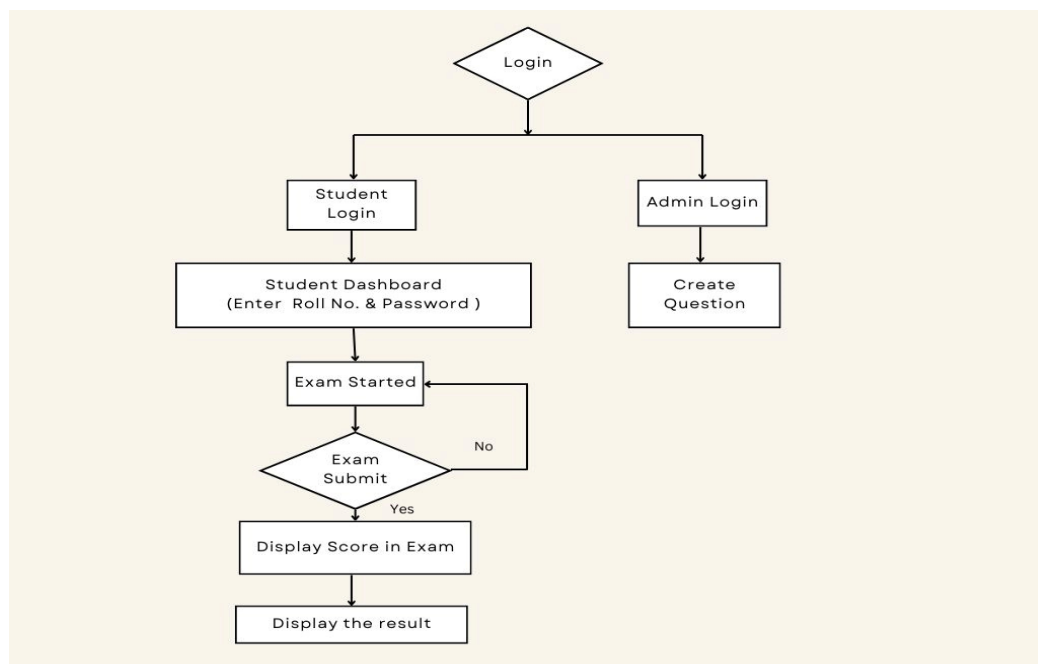


Fig 1. The Flow of Online assessment and report card for school

IV. PROPOSED RESEARCH MODEL

Report card systems and online assessments are essential to today's classrooms. Identify the research question: to enhance teaching, learning, and communication among stakeholders (teachers, students, and

parents), an efficient and user-friendly online assessment report card system is required.

Review of the Book: Examine the literature that is currently available on report card formats, online assessment tactics, and how these affect students' academic success. Examine concepts and real-world examples of online feedback and surveys.

Model of Technology Acceptance (TAM): to comprehend the elements that impact technology adoption and user approval.

Goals for the research: Determine the essential elements and capabilities needed for an efficient online report card and survey system. Assess the proposed system's applicability, user happiness, and perceived usefulness among educators, learners, and guardians. Analyse how online learning affects students' motivation, engagement, and academic performance. Utilizing an online survey and report card style, investigate the viewpoints and experiences of educators.

Research methodology: Use mixed techniques in your study design, combining quantitative data with qualitative information from focus groups or interviews.

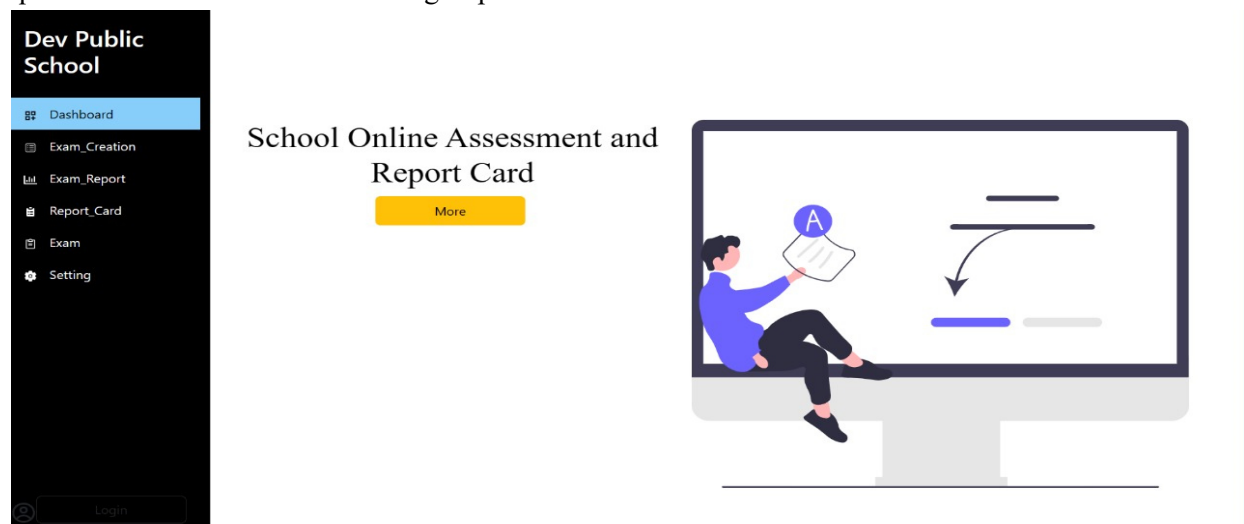


Fig 2. Dashboard of the Website

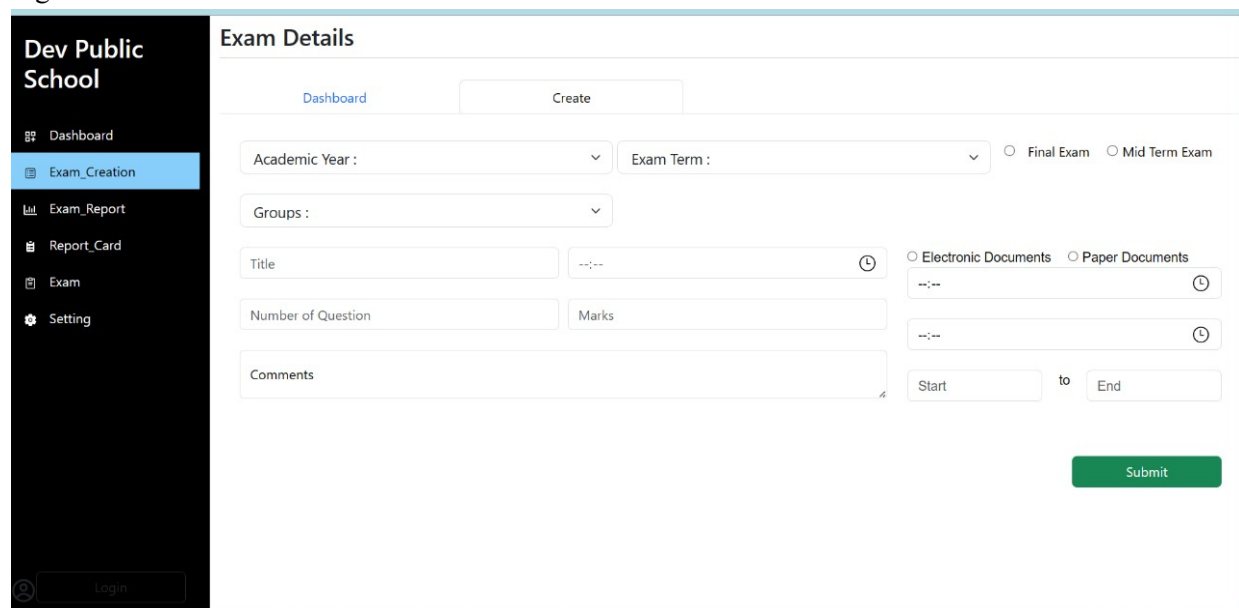


Fig 3. Image of Exam Creation

V. PERFORMANCE EVALUATION

Integrating These might be increasing the effectiveness of assessments, fostering stakeholder communication, giving students rapid feedback, and helping teachers make decisions based on data. Analyse System Features and Functionality: Compare the online system's features and functionality to predetermined standards. This may involve standards like usability, accessibility, dependability, security, scalability, and adaptability. Evaluate the system's ability to fulfil the demands of parents, instructors, and students.

Analyse User Experience: Get input regarding the system's usability from users (parents, teachers, and students). Utilize focus groups, interviews, or surveys to gauge customer satisfaction, usability, and overall experience. Consider elements like responsiveness, customization possibilities, ease of use of the system, and the clarity of the instructions. Analyse System Performance measures: Assess the online system's performance using quantitative measures. Metrics like system uptime, reaction time, processing speed, data correctness, and error rates may be included in this. Observe the functionality of the system.

VI. RESULT ANALYSIS

Data Collection: Collect data collected during online assessments, such as assignments, overall class performance, and individual student scores. Collect information from report cards, such as teacher notes, attendance records, and course-specific grades.

Examine characteristics descriptively: Record median, median, standard deviation, and range for test results and report card grades, among other basic statistics. Construct a frequency distribution to determine the distribution of grades among all students.

Analytical Comparison: Compare student performance across tests or testing periods to find trends or patterns. Compare student performance in a range of subjects to identify strengths and weaknesses in their learning.

Evaluating the items: Conduct item analysis to assess the difficulty and discrimination of each test question. Determine whether the questions effectively distinguish between students who performed well and those who did not, and which questions were too easy or too difficult.

Correlational analysis: Check for consistency in test results, grades on report cards, and other relevant information, including participation or attendance.

S.No.	Subject	Average marks of Students
1	English	92
2	Marathi	69
3	Maths	80
4	Science	75
5	History	89

Fig 4. Table of marks of students

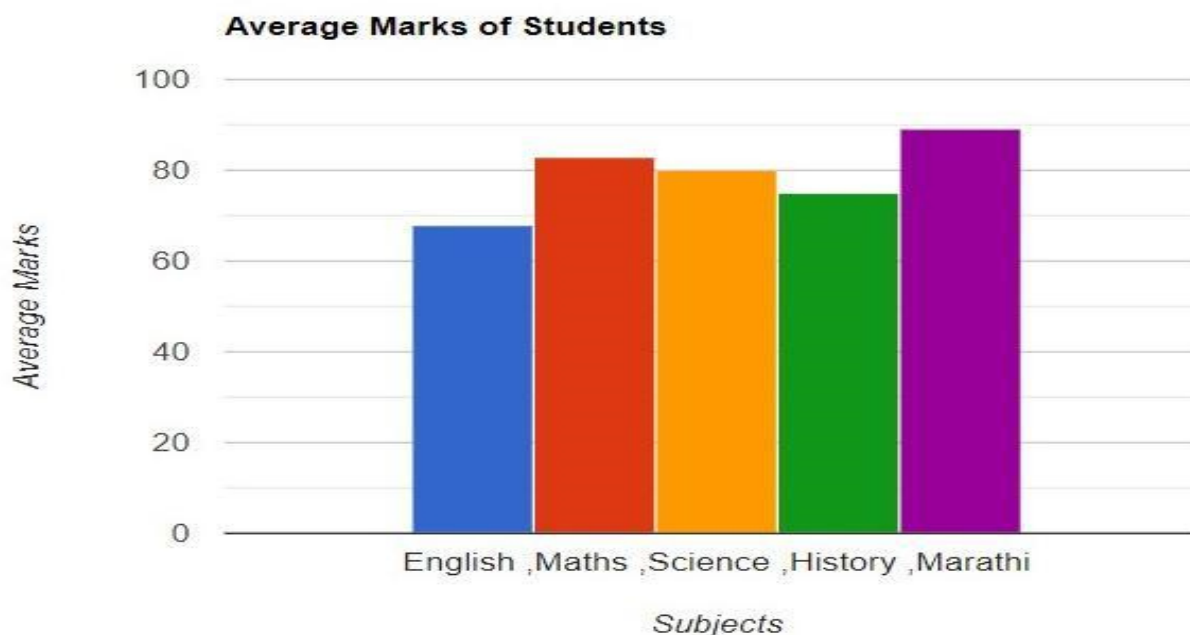


Fig 5. Bar Diagram of Average Marks of Students

VII. CONCLUSION

In Report card project and online assessment for school signifies a significant advancement in research methods for education. incorporation of technology. Enhanced student accessibility, a well-structured appraisal of this work, and study design. Offered insightful information about students' performance through thorough report cards. Instructors can use this project. Learn to make judgments based on data and customize Teaching methods and diet tailored to each student's needs a setting for learning that is more inclusive. Additionally, the approach has fostered cooperation and confidence among stakeholders and offers openness and accountability.

VIII. FUTURE SCOPE

Future school online report cards and assessment systems aim to transform education by providing learning experiences for students, teachers, and parents that are personalized, engaging, and accessible Transitional assessment of different learning styles , direct feedback to student achievement, between families and schools Effective network communication and are just a few of the things this program will be able to provide Inclusion of interactive making it accessible to students with different needs. By using this method, teachers can more successfully detect and close learning gaps, changing the focus of education from grades to a deeper examination of skills and understanding.

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