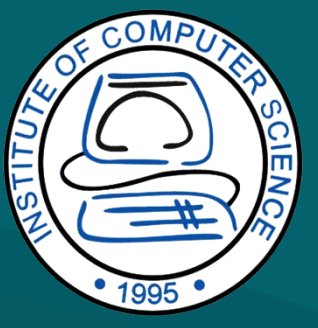




ACADBRIDGE: AN ACADEMIC RECORD SYSTEM WITH PERFORMANCE VISUALIZATION AND STRUCTURED COMMUNICATION FOR GOA SCIENCE HIGH SCHOOL



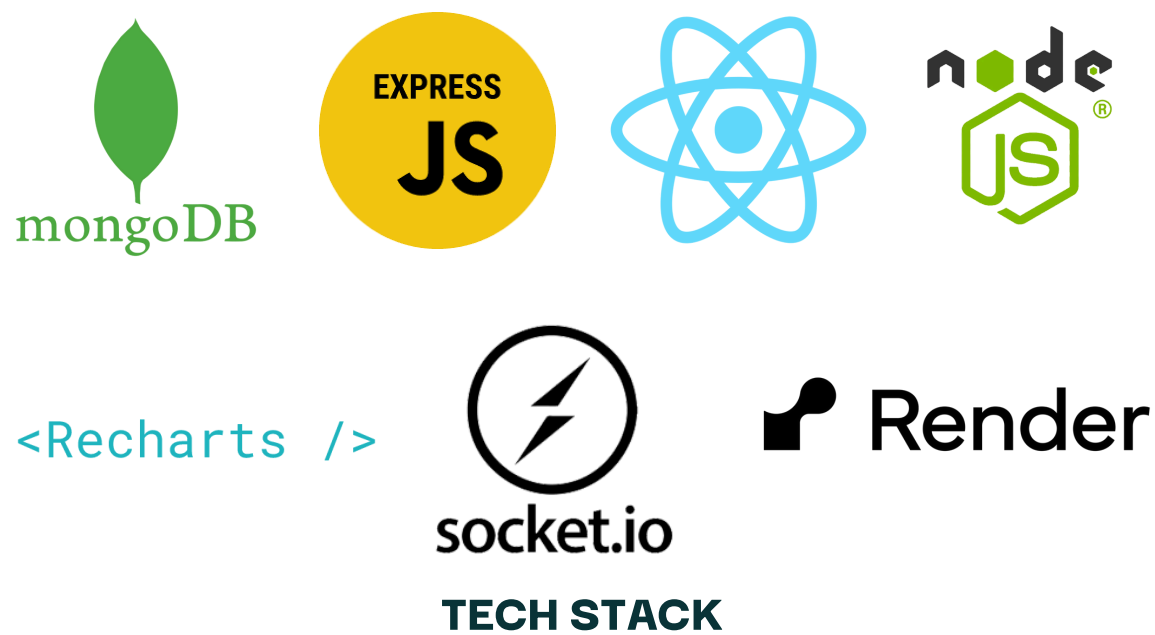
JOSEPH RYAN P. PEÑA AND CONCEPCION L. KHAN

INTRODUCTION

AcadBridge is a web-based academic record system developed for Goa Science High School to address challenges in grade access, data management, and teacher-student communication. The school's reliance on physical report cards and informal channels like Facebook Messenger limited timely feedback and transparency. AcadBridge integrates real-time grade monitoring, performance visualization, and secure communication in one centralized platform—helping students, teachers, and administrators access and manage academic data more efficiently.

METHODOLOGY

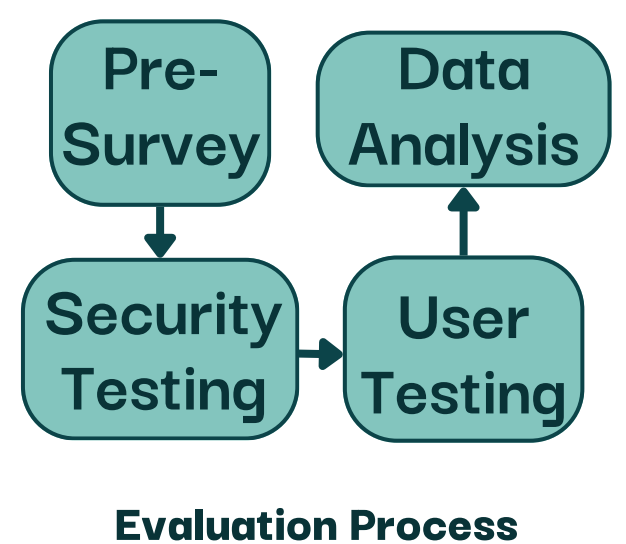
Tools Used



TECH STACK

User Testing

- Authentication, Authorization, NoSQL Injection Prevention, and Input Validation Testing was conducted using Jest and Supertest.
- Aligning with ISO 9241-11 standards, testing measured effectiveness, efficiency and satisfaction with 20 students and 10 teachers as participants.



RESULT

- All 30+ security test cases passed with no breaches or vulnerabilities.
- 100% Task Success Rate: All tasks by students, teachers, and admins were completed successfully.
- 0% Error Rate: No errors occurred across 330 task attempts.
- Consistent Completion Times: 38 out of 39 tasks met the target variability ($CV < 0.33$).
- System Usability Scale (SUS): 87.42 (Excellent)
- Feature Satisfaction (Visualization & Messaging): 4.40 / 5

CONCLUSION

- AcadBridge effectively solved academic data access and communication challenges through:
 - A secure, centralized academic record system.
 - Interactive data visualizations for performance analysis.
 - A structured, real-time messaging system.
 - Full alignment with ISO 9241-11 standards for usability.

Manage Student Grades

Filters

School Year: 2023-2024

Class: Science - Grade 7

Sections: 7-Einstein

Quarter: All Quarters

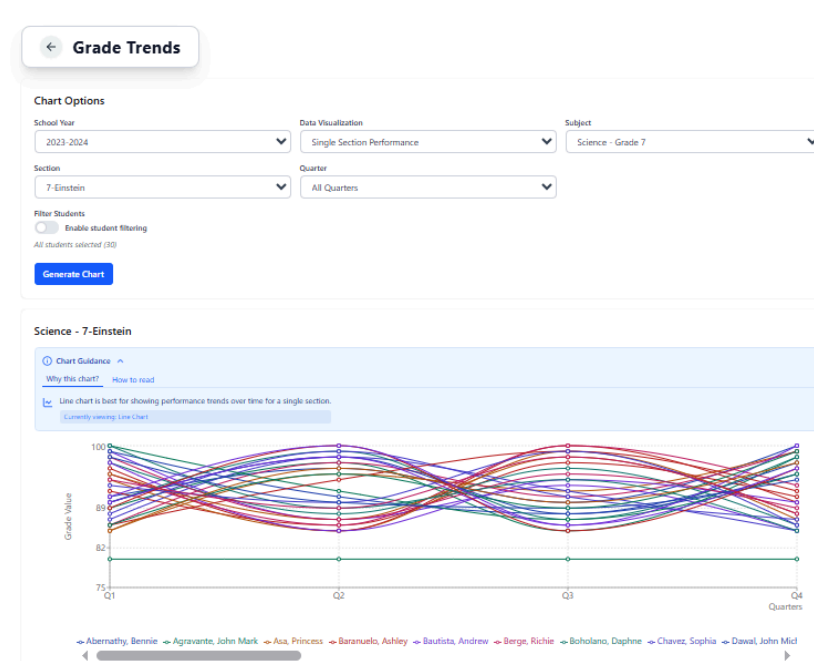
Sort by Last Name

No Filter

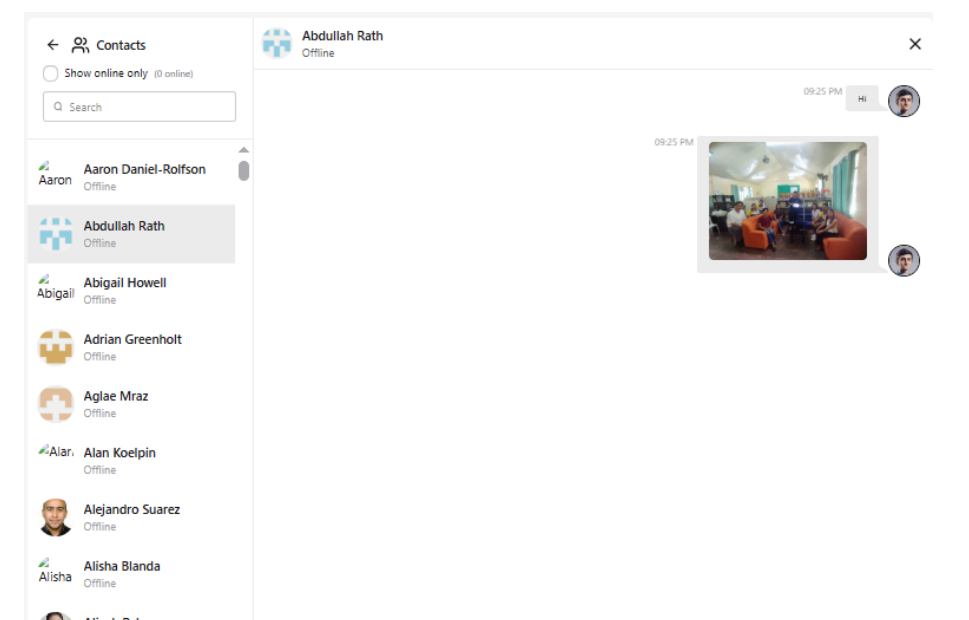
Grades Management

STUDENT NAME	Q1	Q2	Q3	Q4	AVERAGE	STATUS
Juan Dela Cruz	80	80	80	80	80.00	Failed
Maria Santos	85	95	88	99	92.25	Pass
Andrew Bautista	99	87	93	85	91.00	Pass
Liza Perez	90	98	86	100	93.50	Pass
David Garcia	97	85	94	90	91.50	Pass
Jenna Mendez	88	99	91	87	91.25	Pass
Ella Hsu	95	86	100	93	93.50	Pass
John Mark Aguirre	89	97	85	96	92.25	Pass
Jaymark Reyes	93	90	99	86	92.00	Pass

Student Grade Management Page



Data Visualization Page



Messaging Page