Manual Testing Of The Learning Management System In Company : LMS Company

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ABSTRACT

Originally developed as 'LMS School' for academic purposes, the platform was strategically pivoted to **'LMS Company'** to meet complex corporate requirements. During this transition, I managed the **Quality Assurance (QA)** phase within the **SDLC framework**, where my primary responsibilities included designing comprehensive test scenarios and executing rigorous functional and regression testing to ensure seamless feature migration.

I utilized **Jira** for meticulous defect tracking and lifecycle management, while leveraging **N8N** automation to synchronize issue statuses with the primary test case sheets in real-time. This integrated approach facilitated efficient collaboration with the development team, **achieved 100% test coverage**, and significantly reduced manual data entry. Ultimately, these efforts directly enhanced system reliability and ensured a high-standard, seamless experience for the final corporate deployment

INTRODUCTION

In the digital era, **Learning Management Systems (LMS)** have become essential tools for educational efficiency. However, maintaining system quality remains a significant challenge due to complex features and frequent updates.

This project introduces a comprehensive **Quality Assurance (QA)** strategy for the LMS Company system. By **synergizing Manual Testing** with automation tools such as **Jira, N8N, and Google Sheets**, we aim to optimize the testing process, ensure **high software reliability**, and establish a seamless integration within the **SDLC framework**.

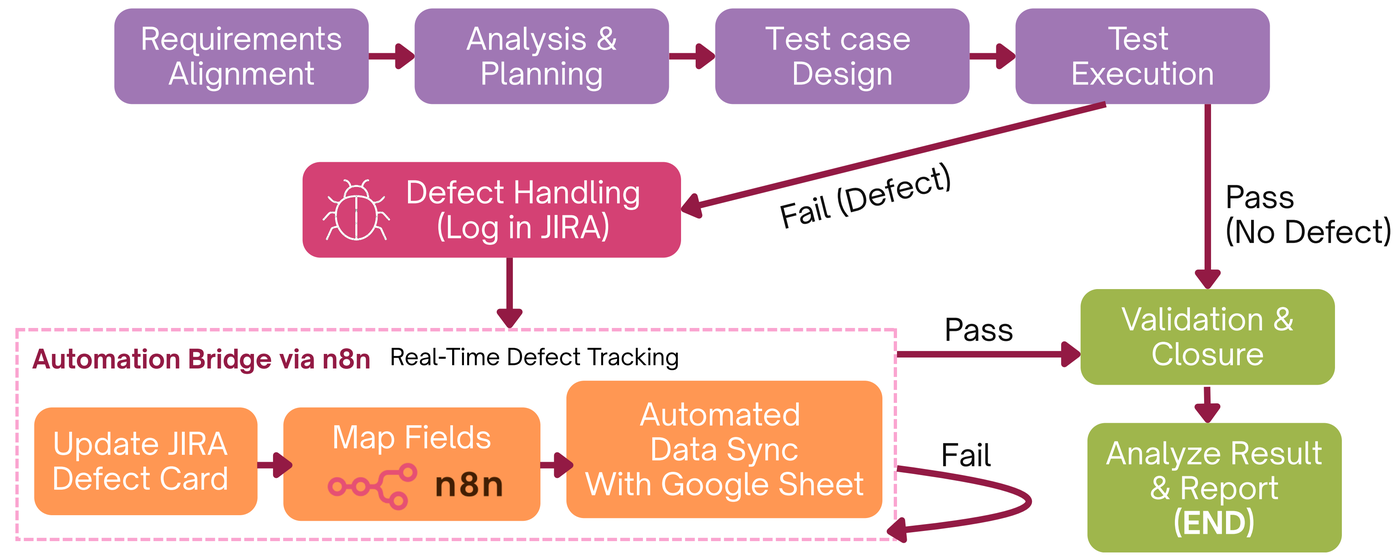
CONCLUSION

As the platform pivoted from ‘LMS School’ to **‘LMS Company’**, I played a key role in the **QA phase** within the **SDLC** framework to ensure a seamless transition. Working closely with the senior team, I developed **215 comprehensive test scenarios** and executed rigorous functional testing, achieving **100% test coverage** and successfully resolving **30 critical defects**.

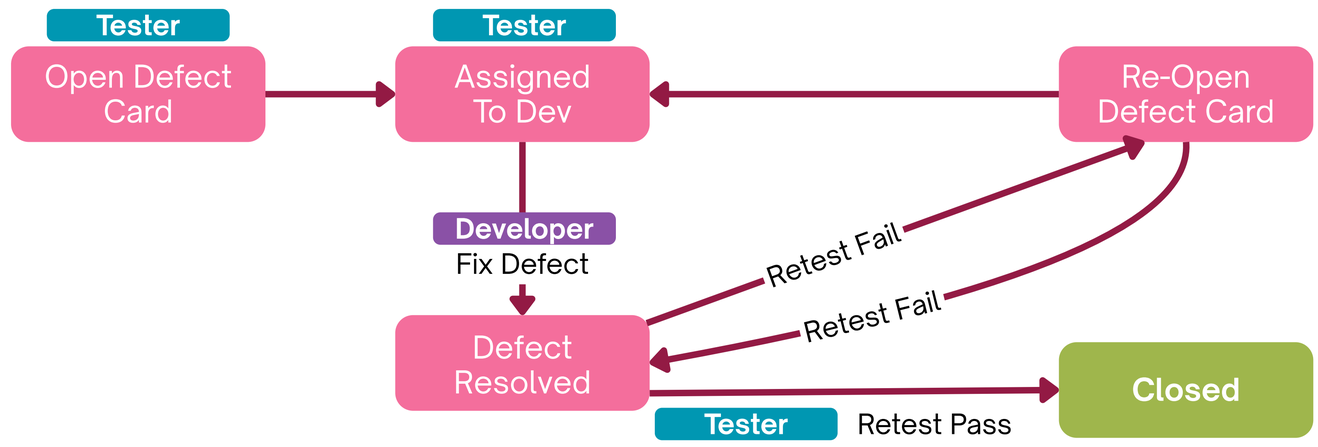
My strategic integration of **Jira and n8n automation** for real-time status synchronization revolutionized the workflow, reducing human error and improving testing efficiency by **30–40%**. Ultimately, these collaborative efforts directly enhanced system reliability and ensured a high-standard, seamless experience for the final corporate deployment, demonstrating the power of blending manual expertise with technical innovation.

METHODOLOGY

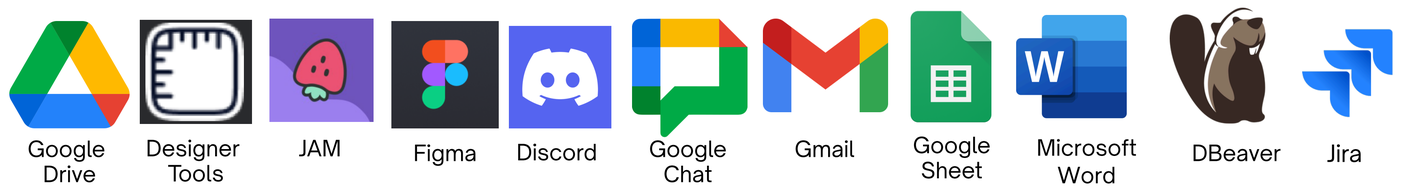
1 QUALITY ASSURANCE WORKFLOW



2 INCIDENT RESPONDSE LIFE CYCLE

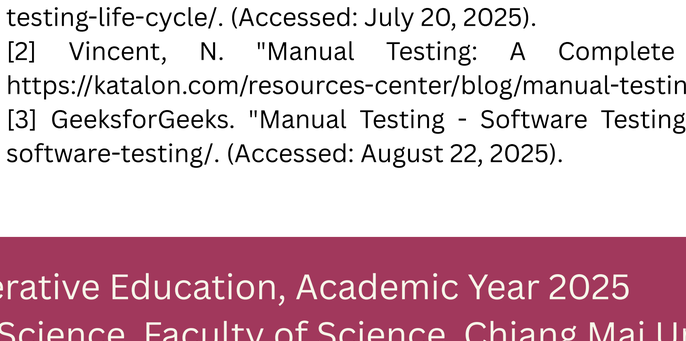


TECHNOLOGY



RESULT

1 TESTING PERFORMANCE & QUALITY



- 100% Coverage: Verified all functional requirements for LMS Company.
- High Resolution: Resolved 100% of 30 defects found in 215 test cases.
- Stability: Ensured a reliable platform for final corporate deployment.

2 PROCESS EFFICIENCY & AUTOMATION

Actual Result	Test Status	Test By	Test Date	Jira No.
3.Button จัดลำดับแบนเนอร์ที่ใช้งาน 4.Button เพิ่มแบนเนอร์ที่ใช้งาน 5.ตารางรายการแบนเนอร์ที่ใช้งาน - ลำดับ - ชื่อแบนเนอร์ - วันที่แก้ไข - Icon 3 จุด ได้ถูกต้อง				
ระบบแสดงตารางรายการแบนเนอร์ที่ใช้งาน ด้วยข้อความ "ไม่มีข้อมูล" ได้ถูกต้อง	Pass		04/09/2025	https://[redacted].atlassian.net/browse/PC-[redacted]
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Automated Status Sync

- 30–40% Time Saved: Reduced testing cycles to 1–2 days via n8n + Jira.
- Error Mitigation: Automated status syncing, eliminating human error in logging.
- Optimized Workflow: Streamlined real-time collaboration with the Dev team.

REFERENCE

[1] Heera, P. "Software Testing Life Cycle (STLC)." QA Touch Blog. Available at: https://www.qatouch.com/blog/software-testing-life-cycle/. (Accessed: July 20, 2025).
[2] Vincent, N. "Manual Testing: A Complete Guide With Examples." Katalon Blog. Available at: https://katalon.com/resources-center/blog/manual-testing. (Accessed: July 20, 2025).
[3] GeeksforGeeks. "Manual Testing - Software Testing." Available at: https://www.geeksforgeeks.org/manual-testing-software-testing/. (Accessed: August 22, 2025).