

Case study:
De Montfort University

The Background:

De Montfort University (DMU) is a modern and inclusive university located in the heart of Leicester. With a heritage dating back to 1870 and full university status since 1992, DMU has built a strong reputation for its focus on employability, industry engagement, and widening participation.

The university supports a student community of over 28,000 learners across undergraduate, postgraduate, and distance learning programmes. The university also employs around 3,240 staff across academic, research, and professional services roles.

The Situation & Challenge:

DMU uses SAP as its software solution for multiple areas of operations, which include:

- SAP Student Lifecycle Management, an all-in-one solution for the higher education sector, offers an integrated approach to the maintenance of student records, academic structure, admissions, and class scheduling.

- SAP Finance, a core module within the SAP ERP system that manages and streamlines financial data and processes. It offers tools for various financial functions, including general ledger, accounts payable, accounts receivable, cash management, and asset accounting.

- SAP HR, a comprehensive software solution designed to manage human resources. It encompasses various modules and functionalities to support the entire employee lifecycle, from recruitment and onboarding to performance management and payroll.

Each SAP module typically has a major release every 6-12 months, with minor releases every month. As DMU was not currently using automation as part of their testing process, each release would mean that monthly manual regression testing would be required for all SAP modules, which was causing resource issues for the internal testing team at DMU.

Fayaz Tarmahomed, QA Testing & Release Manager at DMU, explains:

"One of the main challenges that we faced without automation was that we were constantly reviewing the new SAP releases every month, to determine the impact of each release regarding the manual regression testing we would need to do. This was always a constant burden on my team, due to the regular releases, but as our environment wasn't stable enough to automate, we were constantly doing manual testing.

The other challenges were regarding our SAP HR Sync Packs, which are big annual releases to the HR platform, and because the tables in the HR solution interlink with the student life cycle solution, there's a knock-on effect for regression testing, which requires a lot of time and resources."

The Solution:

The solution proposed by Infuse was to provide a team of test automation specialists to build a backlog of automated test suites for SAP (Student Lifecycle module).

These test suites would then be run using the Infuse useMango test automation tool.

The specific activities for the Infuse team included:

- Reviewing manual test cases
- Re-engineering manual test steps for automation
- Building automated tests in useMango
- Building a process to expand the automated testing process across other modules in SAP (including the HR module)
- Baseline execution of test cases
- Weekly demonstrations
- Communicating the progress of delivery and results to relevant stakeholders

The Results & Benefits:

A test pack was developed and handed over to DMU to run and maintain.

This has led to the following benefits:

Effort-saving through Automation:
87% of person day effort per cycle is saved through automation. There is no need for manual effort in the automation execution process.

Frequent Execution Cycles:
Given the multitude of upgrades across various systems that may impact the functionality of Student Lifecycle, it is proposed that the Automation Suite be executed on a weekly basis. This would result in a total of 52 execution cycles annually, eliminating the need for manual intervention and ensuring comprehensive and frequent testing.

Out-Of-Hours Executions:
To ensure seamless and timely delivery of the test reports, Automation Suite executions can be scheduled after regular working hours. This allows the suite to generate the test reports, enabling swift review and analysis.

Increased Test Coverage:
Any further data combinations required to be tested for the same test flow, providing additional coverage, are possible without any script updates by adding the additional datasets.

Detailed Execution Reports:
The useMango Execution Reports provide comprehensive information, such as error logs, along with screenshots to expedite the process of raising a defect when necessary. This proactive approach significantly reduces the time required to analyse test failures, thereby streamlining the defect identification and resolution process.

Fayaz Tarmahomed went on to comment:

"One of the biggest benefits for me was having an end-to-end scenario for the student journey, starting from admissions all the way to alumni and graduation, going through each year. So we now have a script that Infuse created, which runs the whole process, and covers a lot of our core processes. So whenever there is a change in the environment, we can just click a button and see if any of our core processes throughout the whole cycle will be impacted.

I would definitely recommend Infuse to any organisations wanting to implement test automation, firstly because of their useMango tool and secondly because of the service they offer.

Everyone's been excellent to work with, everyone is professional, everyone knows what they're talking about, and their response times are brilliant. If there's an urgent issue, it gets addressed immediately.

That's one thing that's important to me, because if I've got a problem, I want it dealt with straight away because of how demanding our work is, and that's an area where Infuse really excel."

INFUSE

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