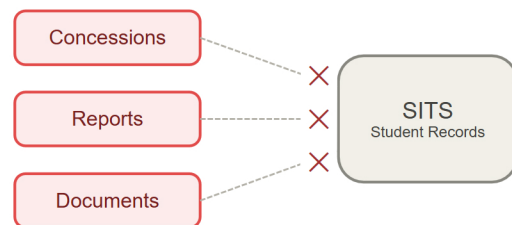


INTRODUCTION

1

The exam department depended on three separate Microsoft Access databases, none connected directly to the SITS student records system. Data was copied and quickly out of date, concessions were typed inconsistently, and no record existed of who changed what.

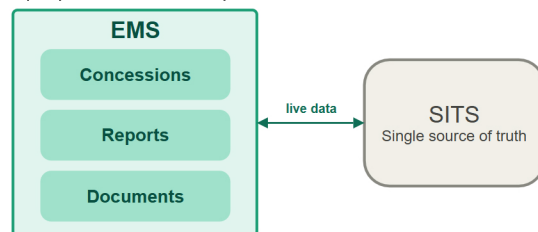


AIM & OBJECTIVES

2

The aim was to replace the three legacy databases with one secure, web-based Exam Management System that reads student and exam data live from SITS.

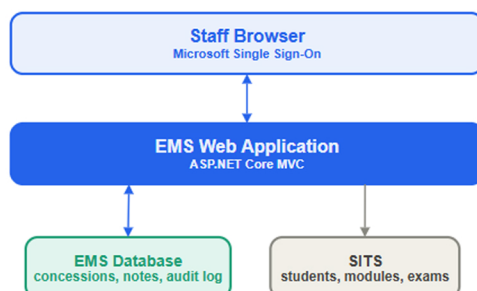
- Read student and exam data live from SITS
- Control access to sensitive disability records
- Keep an audit trail of changes
- Produce the exam reports and documents
- Deploy to the university's live environment



METHOD

3

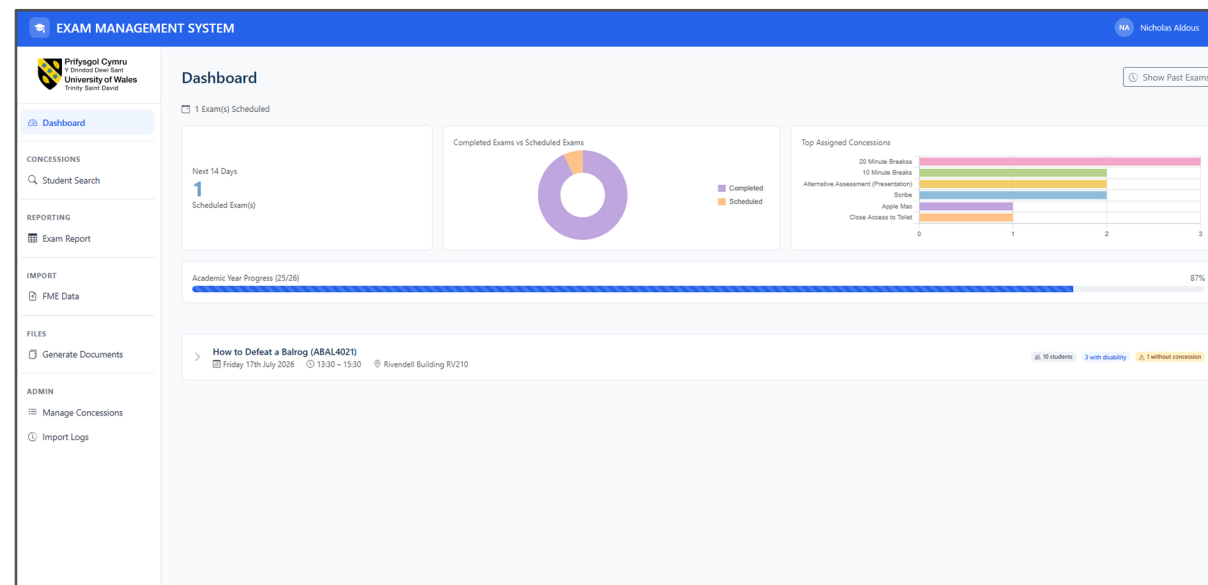
The system was developed in ASP.NET Core MVC with C# and SQL Server, across a number of meetings with the exam department, with requirements prioritised using MoSCoW. It only stores its own data and reads all other data from SITS.



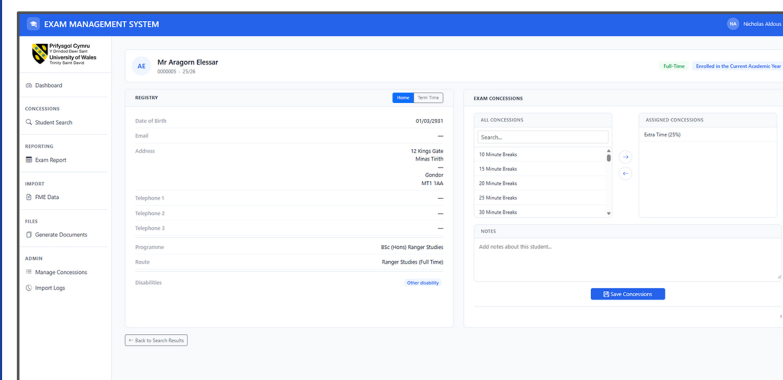
THE SYSTEM

4

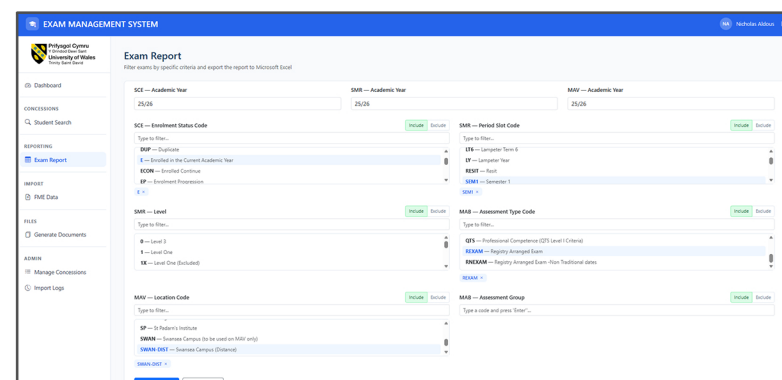
One application provides staff with the dashboard, student concessions, exam reporting, data import and document generation that previously needed three separate Microsoft Access databases, all reading live data directly from SITS.



A) The Dashboard (landing page of the application)



B) Student Information (concessions)



C) Exam Report (with dynamic filtering)

CONCLUSION

6

The system met every essential requirement, every second tier requirement, and delivered an optional requirement in full. It is deployed in the university's live environment and is in evaluation with the exam department ahead of full rollout. Developed as an independent project alongside final year study, the project shows that a single well integrated application can replace legacy systems a department has relied on for years.

Further development -

- Move concession data into SITS, following its recent upgrade
- Add a full history of concession changes
- Formal accessibility testing against WCAG Measure time saved over a full exam cycle
- Implement Welsh translation functionality

KEY LITERATURE

7

16.5%
of UK students have a
known disability, and
the figure is rising [3]

35.0%
of disabled students
say they have the
support they need [4]

"dispersed across multiple silos"
how the literature describes university data [5]

No recent published account describes a system that administers exam adjustments and connects to a central student record. This project was built in that gap.

- [1] J. Brooke, "SUS: A Quick and Dirty Usability Scale," 1996.
- [2] A. Bangor, P. T. Kortum, and J. T. Miller, International Journal of Human-Computer Interaction, vol. 24, no. 6, 2008.
- [3] HESA, Higher Education Student Statistics: UK, 2022/23, 2024.
- [4] Disabled Students UK, Access Insights Report, 2023.
- [5] T. Gkrimpizi, V. Peristeras, and I. Magnisalis, Education Sciences, vol. 13, no. 7, 2023.

RESULTS

5

80.8

System Usability Scale
Rated Excellent [1]

52/54

Functional
Tests Passed

96%

User Tasks Completed
Successfully



Usability was evaluated with exam department staff using the System Usability Scale, scoring above the published benchmark for "excellent". Both test failures were minor and were corrected before deployment [2].