CASE STUDY

INTEGRATION OF CLOUD-BASED LEARNING MANAGEMENT SYSTEM WITH STUDENT INFORMATION SYSTEM

Client Background

Our client is software-as-a-service (SaaS) technology company that delivers educational software which makes people smarter. Its cloud-based Canvas learning management system (LMS) now connects more than 18 million teachers and learners at over 1,200 higher education and K-12 institutions throughout the world. Because learning does not end after graduation, our client also offers a modern learning and engagement platform that enables organizations of every kind to engage with employees by measuring and improving employee sentiment, alignment, and knowledge in real time.

Business Challenge

Our client needed to enable integration of its Canvas Learning Management System with the Student Information System. The project consisted of three parts:

- SIS Aeries Integration. Develop a solution that enables integration of the Student Information System with Canvas LMS (Learning Management System) and provide owners of SIS with an automated process for the import/update of data from SIS (such as courses, terms, sections, students, and teachers).
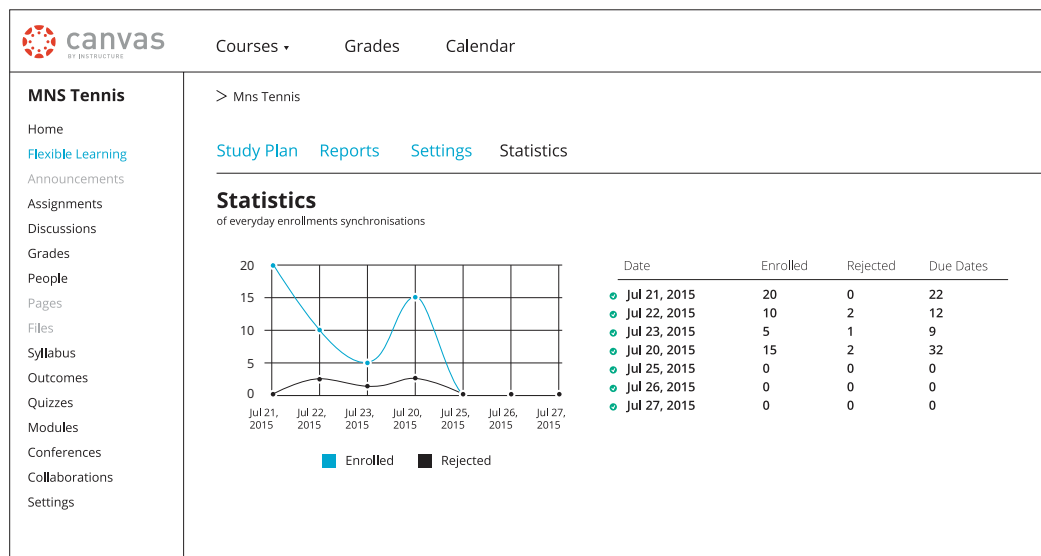
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- SIS Aspire Integration (Integration with SIS Aspire which is used by Nebo School). Develop an assignment-level grade-pass backward integration between Canvas and school district SIS. This integration required the development of a middleware solution with direct read/write access to the SIS database.
- Flexible Learning LTI Application. Develop an LTI application that allows the client to offer students a flexible learning format of self-paced academic credit program. The goal was to enable students to progress through the course content provided and complete the course at their own pace.

Project Description

SoftServe and the client partnered to create 3 integrations of the Canvas system with the SIS system. SIS integrations were performed using a SIS API and custom integrations provided by the client to retrieve, process, and format the SIS data to adhere to Canvas. One of the integrations was aimed at the development of an LTI application, which provides students with flexible learning plans including progress reports and a variety of notifications.

Within a short 3 month timeframe, the SoftServe team successfully executed all three projects. The team consisted of 3 Ruby developers, a Quality Control engineer, Project Manager, Requirements Manager, and System Architect. Thanks to the flexibility and value stream mapping approach, the SoftServe team was able to work on the integrations simultaneously in order to:

- Meet the project's requirements within the limited timeframe
- Build the vision of the future solution
- Provide a full set of project deliverables

Business Value

As a result of the three projects, Canvas now supports integrations with the SIS. These integrations allow instructors who use the application to pass the information to Canvas and use it on both account and sub-account levels. Teachers who use the application can transfer data and use the full set of Canvas features, receiving up to date information from the SIS system.

With the Flexible Learning LTI application our client offers their clients a versatile way to manage the Master Schedule of a course, as well as the opportunity to modify the study plan for a specific student.

Also, a Teacher/Admin can modify a master schedule by section at any time. Upon enrollment of a new student into the section, the system automatically calculates and sets custom assignment due dates for the student so that student's course calendar and agenda are updated in near real-time after enrollment.

Lastly, a Teacher/Admin can modify individual student study plans by changing the actual date of each individual due date, including the course end date. In addition, extensive statistics on student achievement is now available via reports and a variety of notifications for users who can access a specific course.

ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience are built on a foundation of empathetic, human-focused design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy—No matter where you are in your journey.

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