Digital 4 Business
Evolving your digital future

D3.1 Digital Learning Platform & Teaching Tools

Setup the Digital Learning Platform and tools for the online master's programme.

| MATRIX INTERNET

Table of contents

About the Digital4Business project

Digital4Business aims to design and implement a highly innovative, effective and sustainable European Master's Programme in Advanced Digital Skills. This contributes to the overall objectives of the DIGITAL Europe Programme by fast-tracking a high number of graduates through a dynamic pan-European stakeholder ecosystem. In the latter, HEIs, research centres, employment services, and industry work together to design, promote, deliver and improve an innovative master's programme. It will focus on the practical application of Advanced Digital Skills within European business, an entirely market-led academic programme driven and designed to meet the current and future (up)skill needs of SMEs and companies.

The master's course(s) will focus on the practical application of advanced digital skills within business, including topics such as AI, cybersecurity, and the cloud. The latter skills are pivotal to European businesses' ongoing competitiveness and growth. Courses will blend academic and industry content to ensure that graduates are equipped with theoretical and employment-ready digital skills that will undoubtedly ensure career success for the candidates. Their degrees will be academically accredited by the hosting institutions and comprise industry certification through the key IT leading sector partners. Digital4Business fosters the industry-recognised certifications as a critical element of the learning pathway.

Online teaching and learning environments will be used, combining in-house tools of the participating universities and a new 'master's as a service' central online platform to enhance learning opportunities for part-time students and professionals already in employment. In addition, mentoring programmes with industry partners, hackathons, industry-focused project-based learning, and coaching on soft skills and job profiles will be offered during the programme.

The programme will be provided in three different formats to appeal to different cohorts of students: (1) A part-time MSC EQF level 7 programme; (2) A full time MSC EQF level 7 programme, and (3) Individual modules and courses. We aim to launch multiple part- and full-time cohorts within the four-year project duration, with at least one part- and two full-time cohorts completed within the four-year duration of the project. The initial part- and full-time cohorts will be deployed as pilots, with cyclical review and improvement after each year.

WP3 is responsible for the Programme Development & Set Up. This deliverable T3.1: Set up the Digital Learning Platform & Tools for the online master's programme, Output 12: Digital Teaching Tools & Platform) Aims to develop and deploy a Digital Learning Platform consisting of all the technical solutions necessary to deliver an integrated and highly adaptive experience for all the stakeholders working in and with the platform. Every component from content management, data processing, security governance, task and process automation, reporting and insights to the basics of communication and collaboration will be implemented in the system.

The Digital4Business Consortium

The DIGITAL4Business Consortium is a partnership of 17 stakeholders led by National College of Ireland, bringing together key industry, technology, and education stakeholders in Europe. Its composition is presented in the following table:

Partners	Acronym
NATIONAL COLLEGE OF IRELAND	NCI
ALMA MATER STUDIORUM – UNIVERSITE DI BOLOGNA	UNIBO
UNIVERSITY OF DIGITAL SCIENCE GGMBH	UDS
CONSORZIO INTERUNIVERSITARIO NAZIONALE PER L'INFORMATICA	CINI
AKKA ITALIA (former MODIS CONSULTING SRL)	Akkodis
ADECCO FORMAZIONE SRL	ADECCO
LEE HECHT HARRISON DEUTSCHLAND GMBH	LHH
SKILLNET IRELAND COMPANY LIMITED BY GUARANTEE	Skillnet Irl
UNIVERSITE PARIS 8 VINCENNES SAINT-DENIS	UP8
LINKOPINGS UNIVERSITETET	LIU
TERAWE TECHNOLOGIES LIMITED	Terawe
MATRIX INTERNET APPLICATIONS LIMITED	Matrix
DIGITAL TECHNOLOGY SKILLS LIMITED	DTSL
UNIVERSIDADE NOVA LISBOA	UNL
SCHUMAN ASSOCIATES SCRL	Schuman

Associated Partners	Acronym
Certiport, A business of NCS Pearson Inc	Certiport
DIGITALEUROPE AISBL*	DIGITALEUROPE

Document Control Information

Project	Digital4Business (EC Grant Agreement 101084013)
Document title	D3.1 Digital Learning Platform & Teaching Tools
Work Package number	WP3
Deliverable number	D3.1 Digital Learning Platform & Teaching Tools
Lead beneficiary	National College of Ireland
Project Coordinator:	National College of Ireland
Dissemination level	**Sensitive** — limited under the conditions of the Grant Agreement
Authors	Authors: Fionnuala Mahon, Brian Power, Tomas Herink - Matrix Internet
Reviewers	ADECCO, Terawe, NCI
Description	Setup the Digital Learning Platform and tools for the online master's programme.
Status	**Final**
Delivery date	10.05.2023
Due date	31.05.2023
Approval date:	31.05.2023

Revision history

Version	Date	Modified by	Comments
1	31.10.2023	Fionnuala Mahon, Brian Power, Tomas Herink - Matrix Internet	Original document
2			

Digital Teaching Tools & Platform

Digital Teaching Tools & Platform

Introduction

The goal of T3.1 was to develop and deploy a Digital Learning Platform consisting of all the technical solutions necessary to deliver an integrated and highly adaptive experience for all the stakeholders working in and with the platform. Every component, from content management, data processing, security governance, task and process automation, reporting and insights, to the basics of communication and collaboration, will be implemented in the system.

The Digital Learning Platform selected by the Consortium is a Moodle LMS implementation with leading end-to-end admissions, enrolments and CRM system, Full Fabric. This platform will utilise various open-source and commercial tools required to deliver an innovative and engaging experience for students.

Advanced analytics will be available in the Moodle LMS to assist in the evaluation of the platform itself, including course signup, admissions, engagement, abandonment etc.

It was identified that various tools were required to deliver both the synchronous and asynchronous learning elements essential for a didactic learning experience.

Objectives

The key objectives behind the planning of the Digital Learning Platform are:

- Create an online master's programme that will be highly accessible, affordable and convenient for the maximum number of students from different demographics, backgrounds and countries.
- Design a sustainable and scalable European master's programme in ADS that requires a low level of financial capacity and investment from participating HEIs.

Launch of the Digital Platform and Learning Management System

The platform has been iteratively designed, developed, deployed and improved to support the delivery of the master's. We are releasing the platform in stages:

- Alpha
- Beta
- Version 1.0

The Digital Learning Platform and Learning Management System will provide online training materials, certifications, and Train the Trainer Programme resources to support the related goals and deliverables D3.2, D3.3, D3.4 for Work Package 3.

Student access

The system will be accessed by students during different stages of their user journey. We have planned and developed the following entry points:

1. **Collecting information**
   The first phase at the top of the funnel is the collection of information about the program, such as eligibility criteria or pricing. During this phase, the general public will be able to access https://digital4business.eu where the main project website will be hosted and all necessary information about the programme will be available.

2. **Application stage**
   When a prospect decides to apply, they will click the application link on the website to proceed to Full Fabric LMS and start their application process. Full Fabric will eventually be hosted on https://my.digital4business.eu, which is also where the main student dashboard will be.

3. **Interacting as a student**
   By default, students will access the whole system via https://my.digital4business.eu, which will link to individual courses hosted by the LMS system on https://learn.digital4business.eu.

Train-the-Trainer programme

The Digital Learning Platform provides the platform and tools for T3.1: Setup the digital training tools and platforms for the online master's programme. The TOT programme for faculty is a key component of the Digital4Business project, designed to facilitate the rapid adoption and effective use of the project's Digital Learning Platform and resources by faculty members. This sophisticated programme supports lecturers in integrating advanced digital skills training into their curricula, ensuring high-quality delivery and consistency across participating institutions. It provides a package of training materials and programme resources for localisation and use by faculty, along with online workshops and webinars for group training.

Key goals of the TOT programme

This programme aims to help teachers achieve the following key goals:

- Understanding critical design considerations such as material accessibility, course organisation, and implementation of active and inclusive learning strategies.
- Developing a systematic approach to observing participants and providing feedback, enhancing learning and self-improvement through formative and summative assessments.
- Exploring new teaching techniques and methods to maintain the effectiveness of online and blended teaching.

Key elements of the TOT programme

Comprehensive training materials and resources

- The TOT programme offers a package of training materials tailored for faculty members. These resources are designed to be easily localisable and adaptable to meet the specific needs of various European institutions.
- The materials include detailed guides, instructional videos and best practice examples to help trainers effectively use the Digital Learning Platform and tools provided by the project.

Online workshops and webinars

- To support group training, the TOT programme includes a series of online workshops and webinars. These sessions are designed to provide hands-on experience and direct interaction with digital tools and resources.

- The webinars cover a wide range of topics, from basic platform navigation to advanced teaching techniques, ensuring that all faculty members, regardless of their initial skill level, can benefit from the training.

Interactive learning modules

- The programme features online learning modules that faculty can complete independently. These modules cover essential aspects of digital teaching, including course design, student engagement strategies, and assessment methods (episode of situated learning methodology; flipped classroom, gamification, collaborative learning, case studies; brainstorming, debriefing; feedback).
- The programme also includes continuous feedback and improvement mechanisms, allowing trainers to voice their concerns and contribute to developing the training resources.
- The modules' interactive nature ensures an engaging learning experience, with opportunities for faculty to practice new skills in a supportive environment.

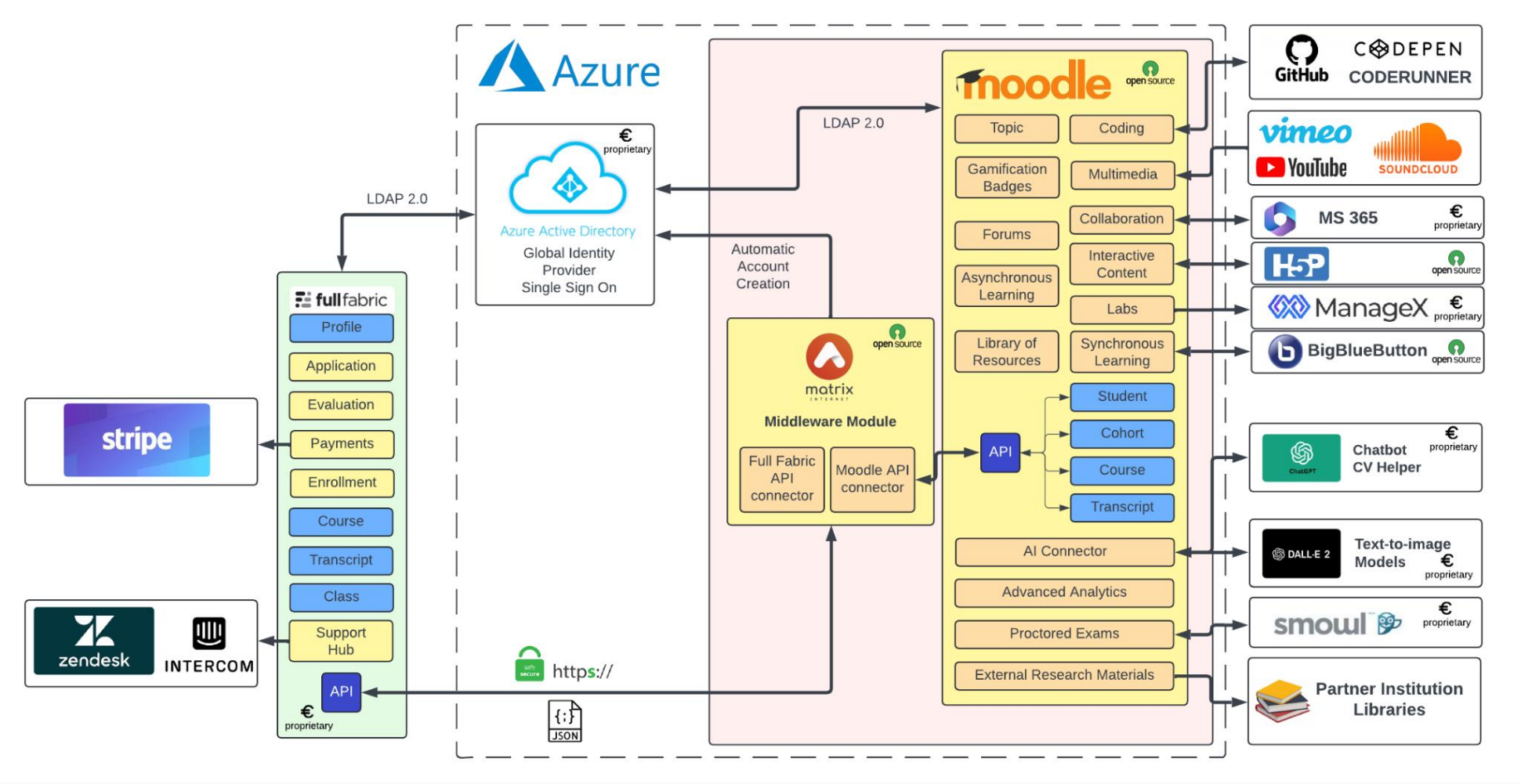
TOT programme in Moodle platform

The TOT programme is integrated into the project's Moodle platform. The programme guides the faculty through interactive modules covering Moodle tool utilisation, engaging content creation, innovative teaching methods, and more. By the end, the user will have a deeper understanding of Moodle dynamics and the ability to improve students' learning experiences.

The TOT programme in Moodle is divided into the following modules:

- Module 1: A Guide to Creating a Useful Course Using Moodle
- Module 2: Creating a Course Using Moodle's Tools
- Module 3: Engaging Learners with Interactive Activities
- Module 4: Creating Assessment
- Module 5: Teaching Techniques and Models

Technical Architecture



The above technical architecture diagram outlines the various elements of the system and their relationship.

The key points from the diagram are:

1. The system consists of three main components:
    a. Full Fabric
        i. CRM
        ii. Admissions
        iii. Student Information System

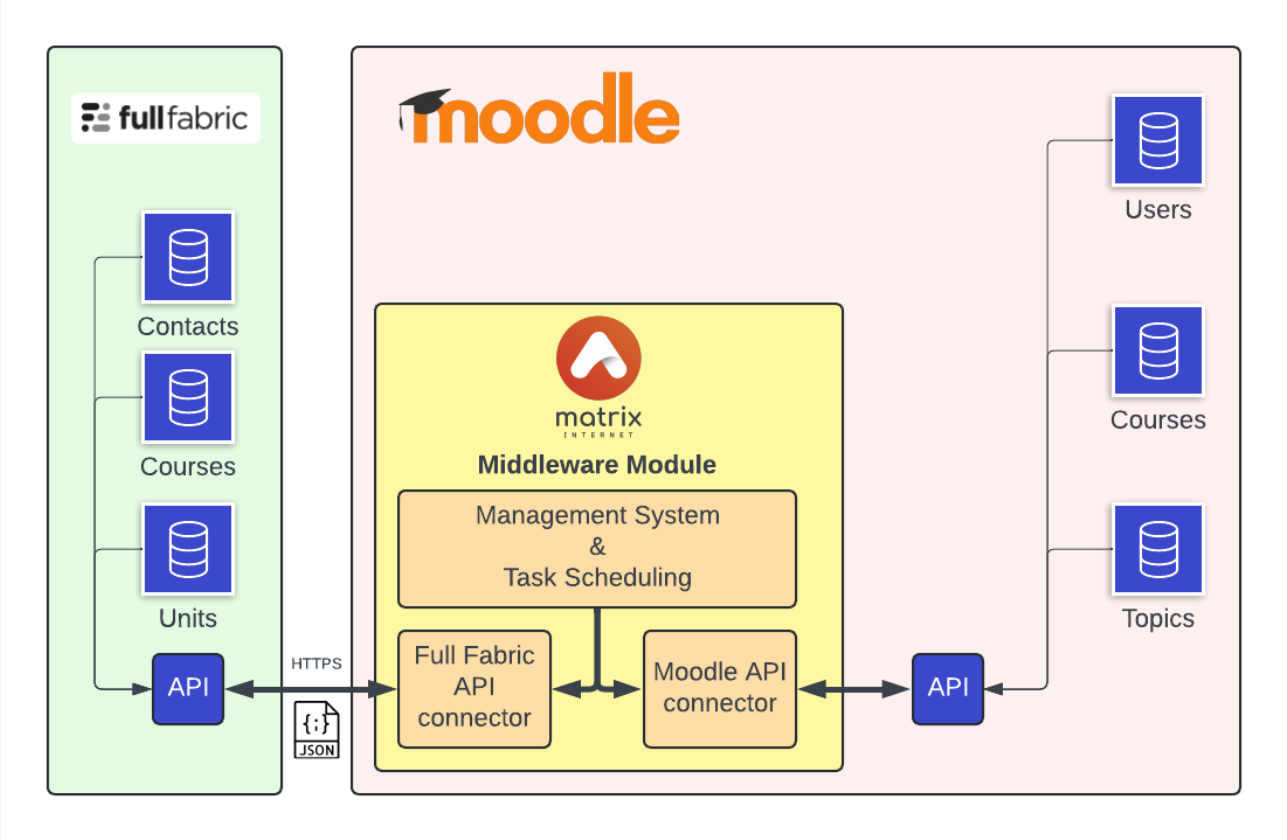
    b. LMS System
        i. A Moodle installation hosted on Microsoft Azure
        ii. A bespoke middleware facilitating seamless integration and single-sign-on functionality between Full Fabric and Moodle.

    c. An array of selected third-party components, modules and plugins, will deliver a lot of the required interactive functionality.

Middleware Moodle data structure

A bespoke middleware application that facilitates:

- Communication and data mapping between Moodle and Full Fabric.
- Scheduling of synchronisation tasks
- Monitoring and alerting



The diagram above outlines the main elements that need to be synchronised across the two systems — the Full Fabric CRM and Student Information System AND the Moodle LMS system.

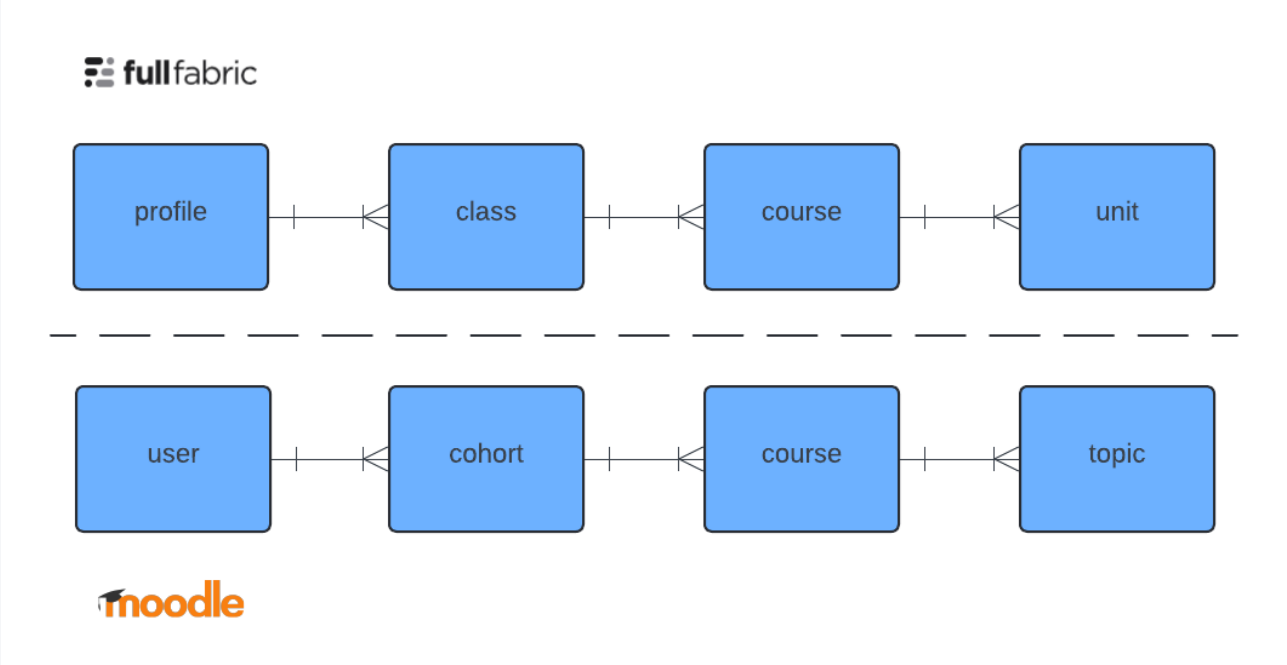
It outlines that there is a 1:1 comparison between the main entities, which makes the two systems suitable for integration, ensuring a seamless student experience.

The Matrix Middleware Application in the above diagram in yellow will ensure that data in both systems are kept in synchronisation and that all relevant users are informed about their access to the LMS system.

Simplified entity relationship diagram

We have identified the following elements that will need to be synchronised between Full Fabric and Moodle.

1. Profiles > Users
    a. Users will be synchronised daily overnight, the night after their initial application, multiple days before they will become students. Personal data will be deleted / anonymised after an agreed time if an applicant fails to convert to a student.
2. Class > Cohort
    a. Cohorts will be synchronised daily overnight.
3. Courses > Courses & Units
    a. Empty courses will be created in Moodle overnight for content population.
4. Units > Topic
    a. Topics will be synchronised together with Courses



LMS

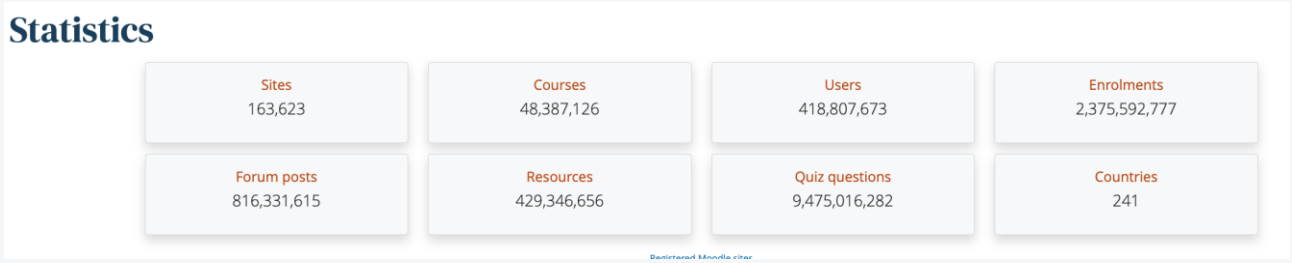
Chosen LMS - Moodle

Moodle is one of the most widely used learning management systems globally, known for its ability to scale effectively. This makes it suitable for extremely large installations. A number of our academic partners use Moodle daily as it is already implemented in many of their academic institutions, resulting shallower learning curve.

- Moodle is an open-source LMS and highly modular
- Easy-to-use, user-centric platform
- Extensible - global community of developers
- Facilitates collaborative learning
- Supports a range of plugins and integrations
- Powerful analytics and reporting tools

There are currently 160,623 active registered sites from 241 countries and counting.

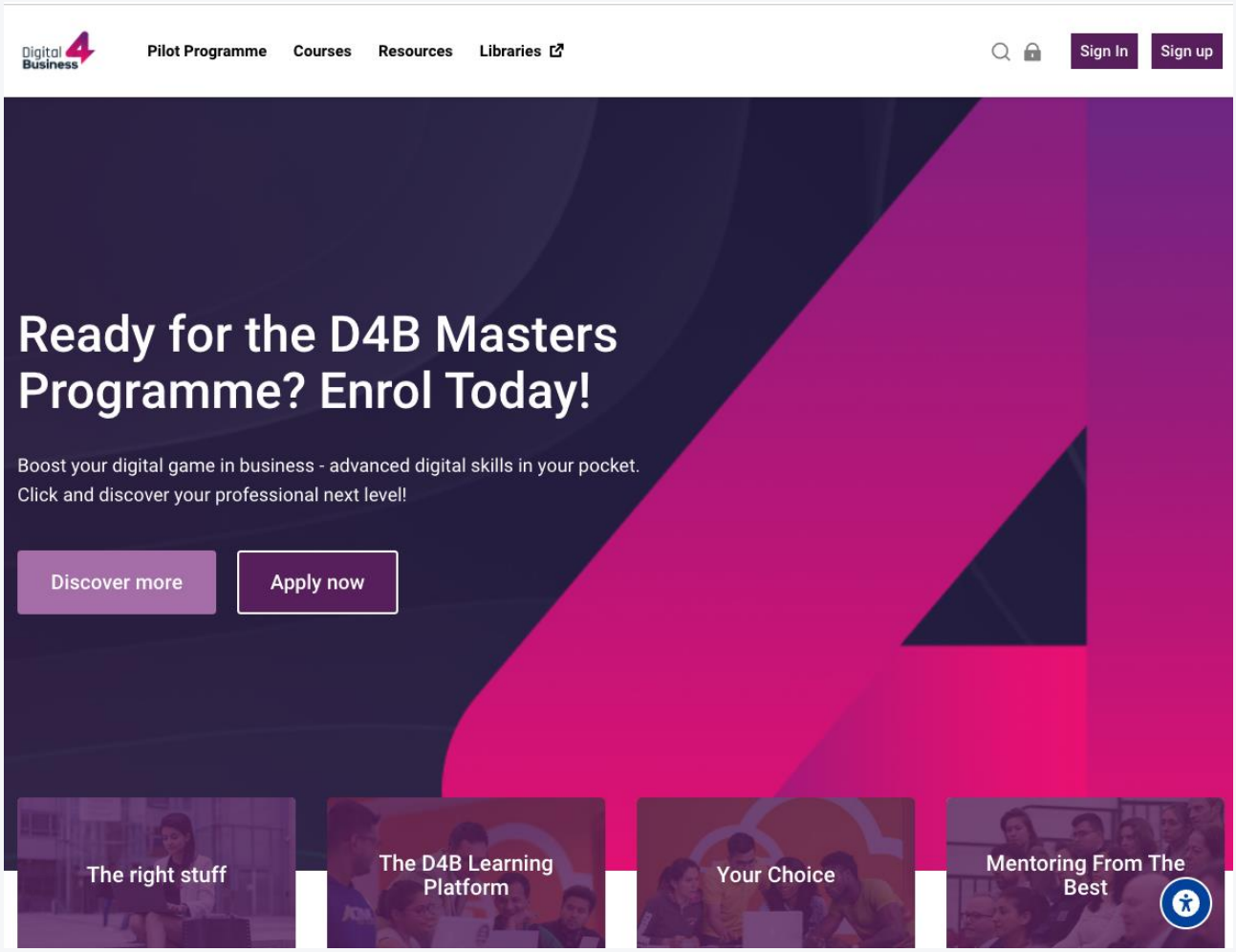
418,807,673 users (https://stats.moodle.org). The Open University of China in Beijing has 3.5 million users (currently the largest known Moodle installation)

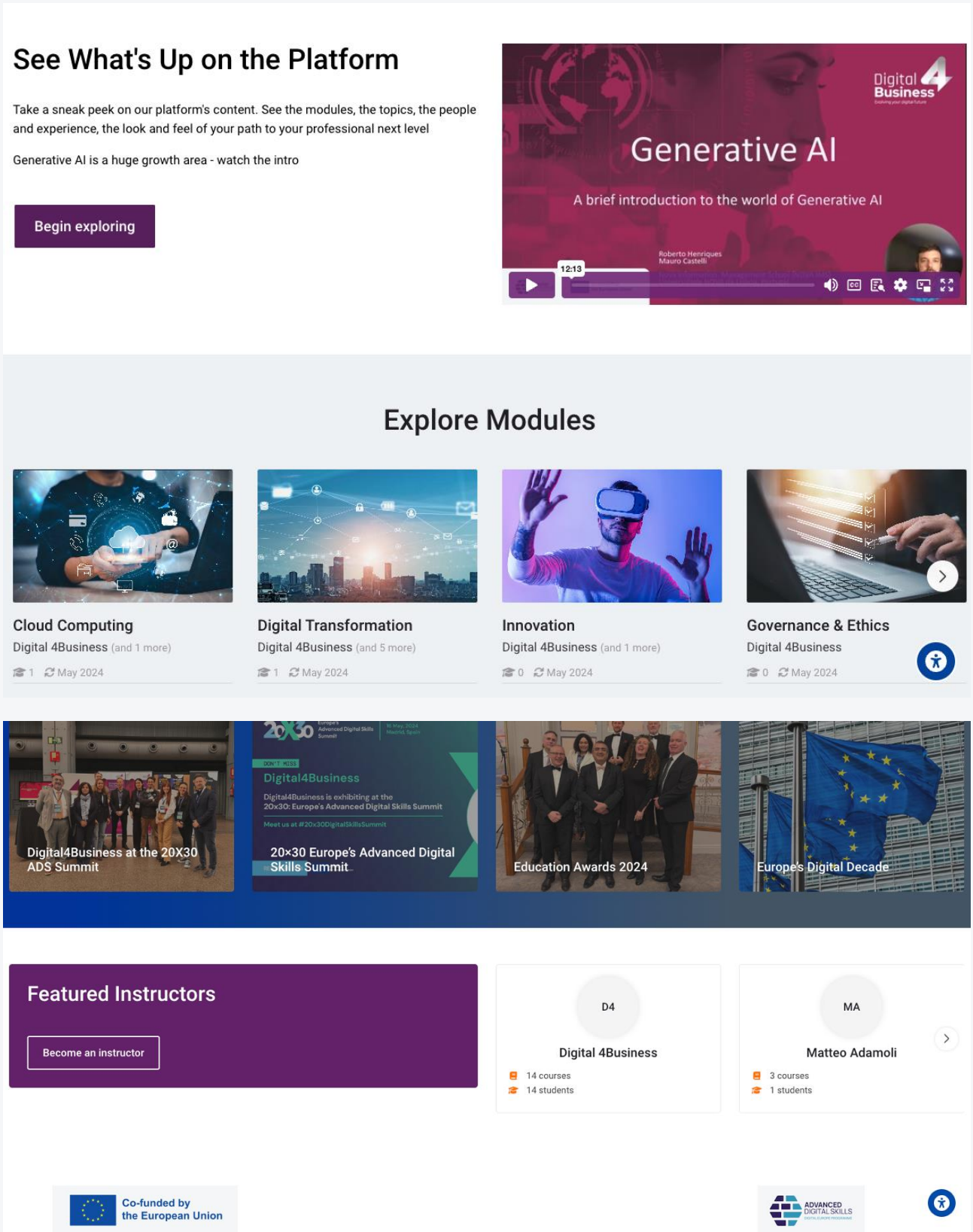


Universities that currently use Moodle include Digital4Business Project Coordinators, the National College of Ireland, along with UNIBO, the oldest University in the world and leaders of D3.4 Train the Trainer Programme & Resources.

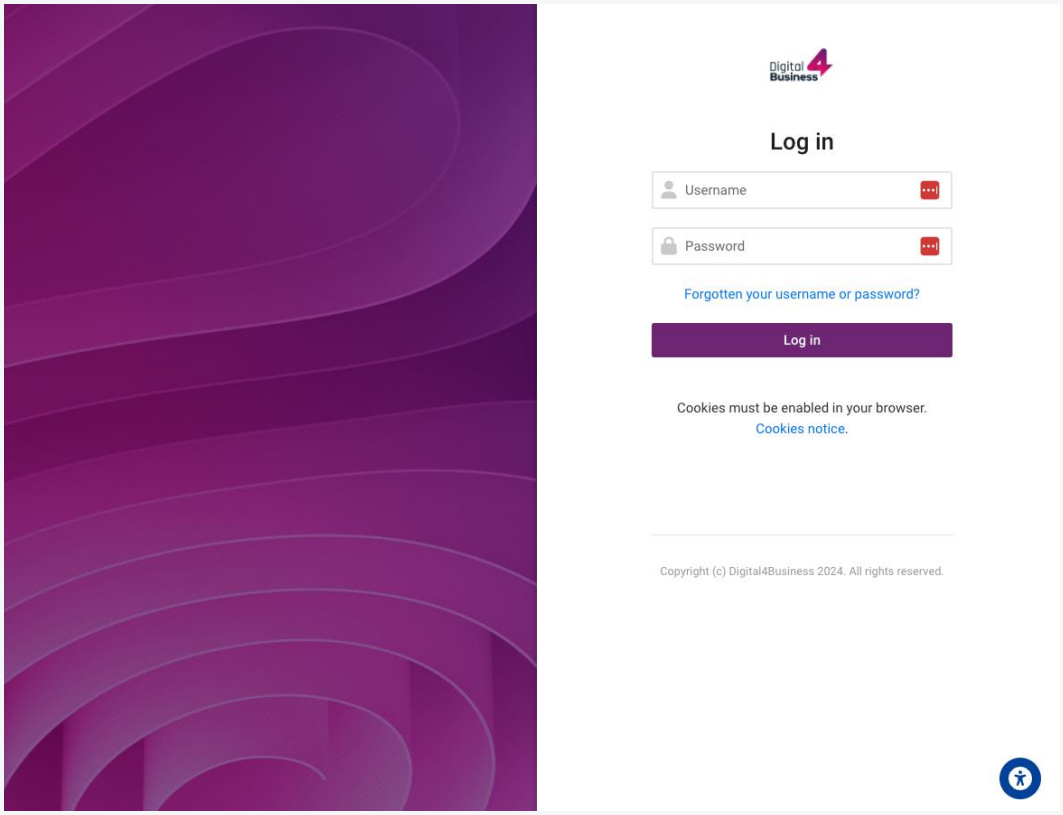
Moodle framework

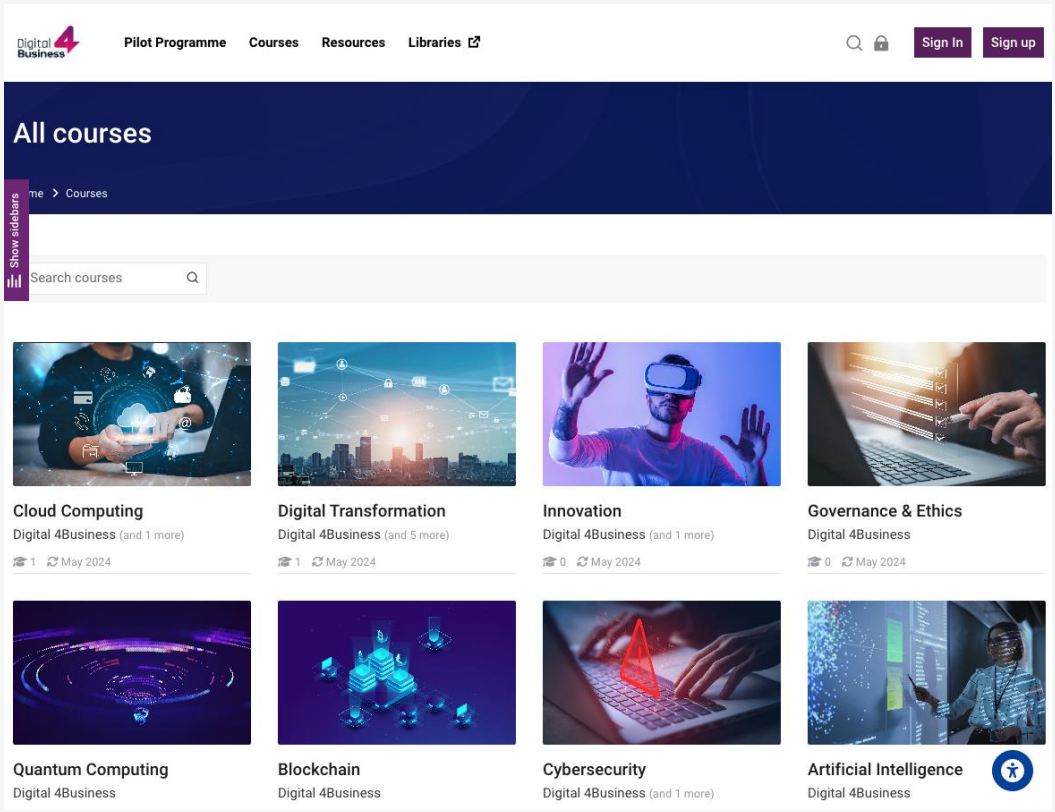
Moodle is an open-source platform that has been installed and configured to suit the Digital4Business platform. A number of external third-party tools and plugins have been installed and configured to enhance the system and add interactive and AI features.

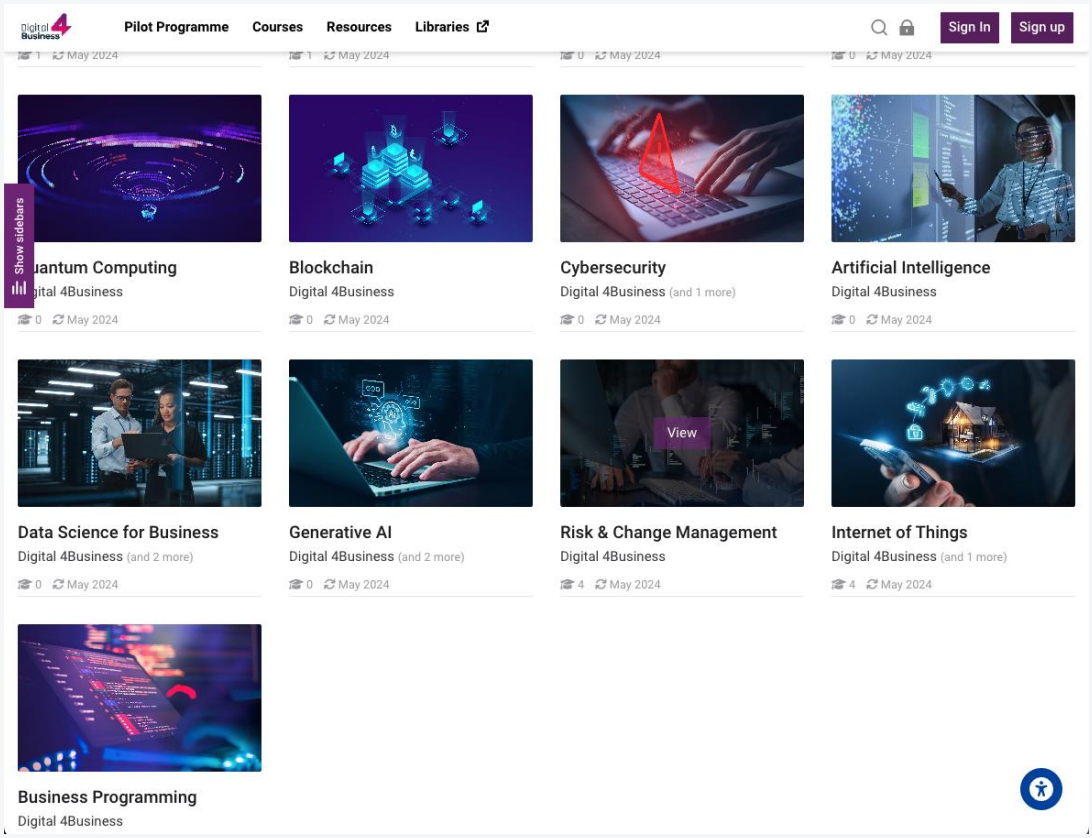




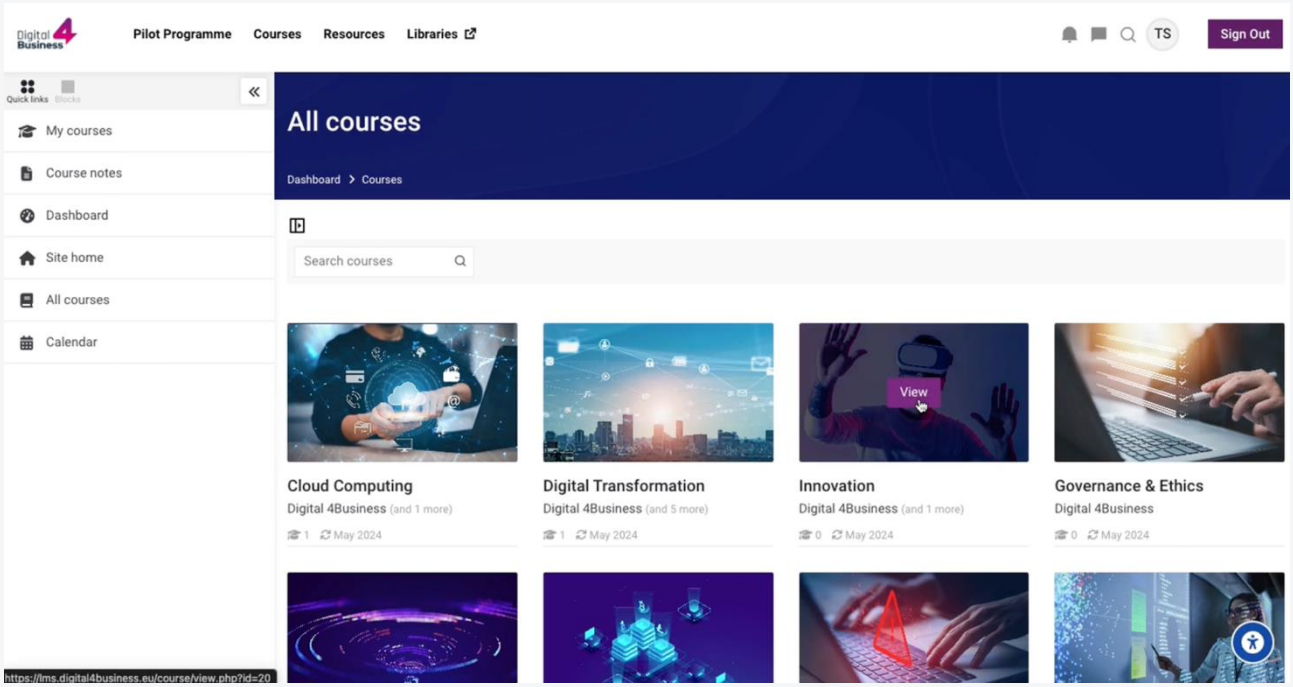
You can see a demo here on the project Vimeo here.

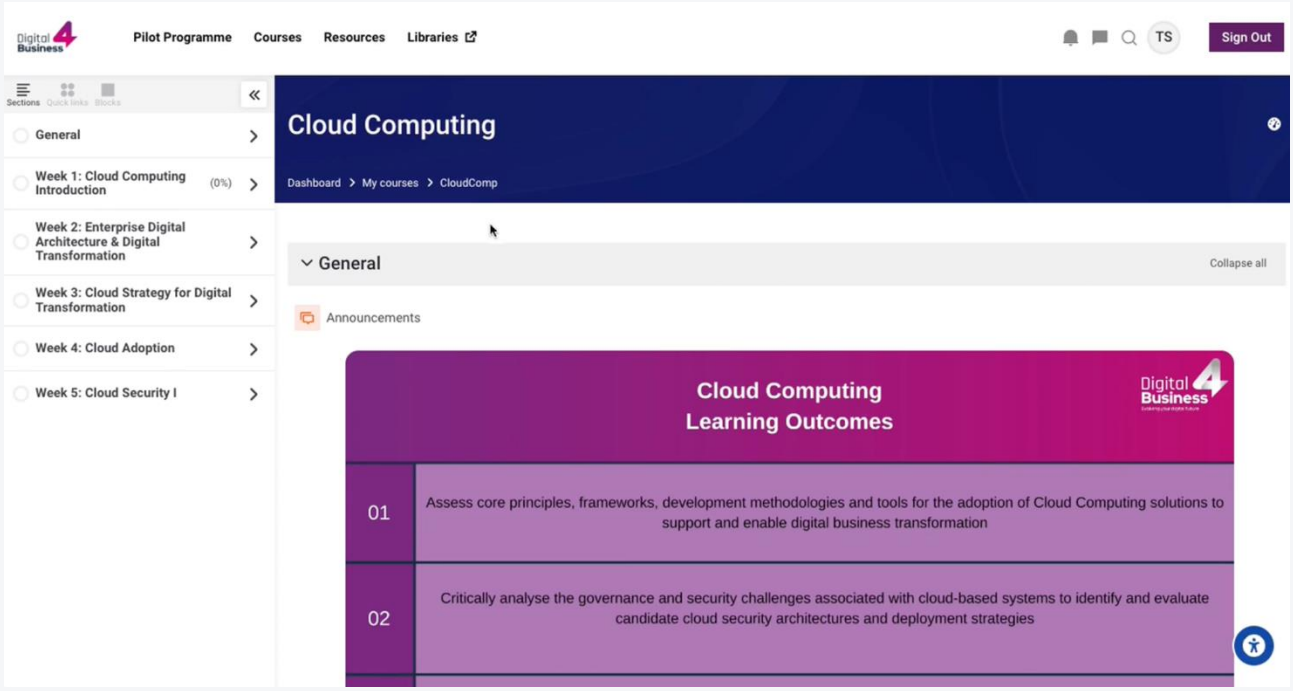

Log in
Username
Password
Forgotten your username or password?
Log in
Cookies must be enabled in your browser.
Cookies notice.
Copyright (c) Digital4Business 2024. All rights reserved.

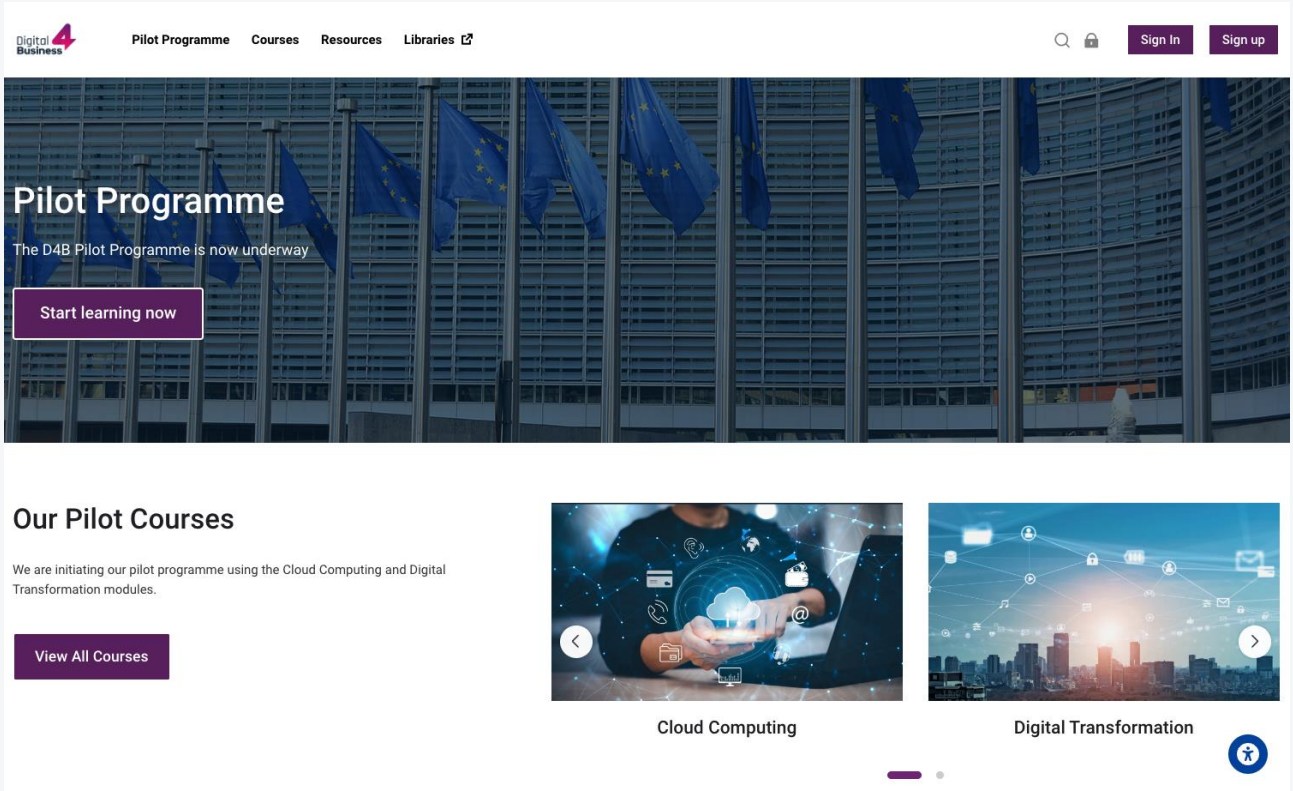

Pilot Programme
Courses
Resources
Libraries
Sign In
Sign up
All courses
Courses
Show sidebars
Search courses
Cloud Computing
Digital 4Business (and 1 more)
May 2024
Digital Transformation
Digital 4Business (and 5 more)
May 2024
Innovation
Digital 4Business (and 1 more)
May 2024
Governance & Ethics
Digital 4Business
May 2024
Quantum Computing
Digital 4Business
Blockchain
Digital 4Business
Cybersecurity
Digital 4Business (and 1 more)
Artificial Intelligence
Digital 4Business



Student view:

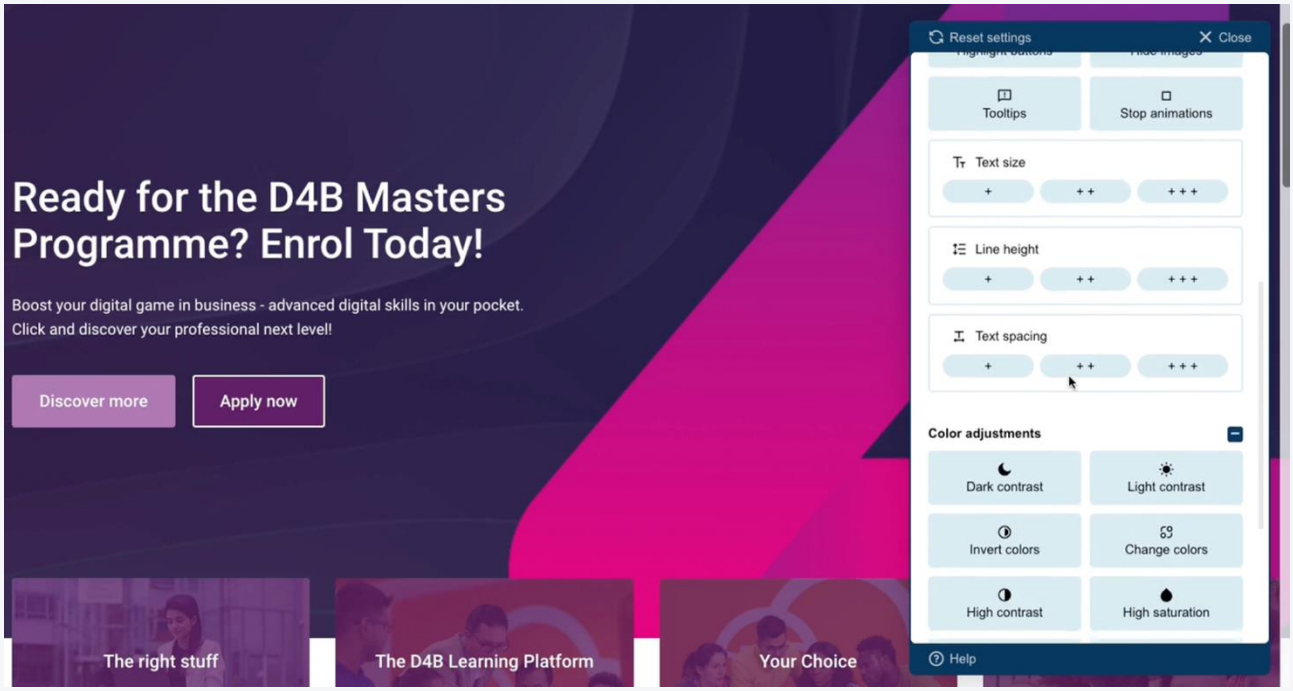






Accessibility

While setting up Moodle we have implemented a full accessibility system to serve the needs of users with special requirements, to enable them to use the platform as effectively as possible.



Academic access

Academic access is being managed by the development partner of the platform, and as required academic access with appropriate permissions is being granted where requested.

Synchronous communication

To facilitate synchronous learning on the platform we are integrating and using a number of third-party tools. We are utilising The Big Blue Button and MS Teams to deliver live lessons.

Asynchronous communication

While students will benefit from synchronous learning, asynchronous learning will be a major part of the master's programme. To facilitate this, we are utilising all the features that the Moodle LMS platform provides out of the box, along with some additional tools listed here. We are also planning on integrating the platform with eduGAIN to allow access to multiple academic partners' libraries.

third-party services

The academic partners created a wishlist of tools and solutions needed to deliver an integrated and highly adaptive experience for all the stakeholders working in and with the platform, including the Train the Trainer programme.

Microsoft Teams and Big Blue Button

We have identified two critical platforms for synchronous learning. Both of these allow the creation of resources in a course section to provide live teacher training via video link while also allowing video sharing, whiteboards, breakout rooms etc.

Microsoft Office 365

All students will be given access to a Microsoft Office 365 account to enable the creation of reports, assignments etc in the Microsoft Office suite and in Microsoft Office format to allow standardisation of submitted assignments.

IntelliBoard

IntelliBoard is an analytics extension for Moodle that allows us to retrieve and analyse all available platform data, to identify areas for improvement and existing issues.

OpenAI

Initially we are engaging with OpenAI to facilitate the use of OpenAI extensions.

H5P interactive content

H5P is an abbreviation of HTML5 Package. It enables educators to create content such as interactive videos, quizzes and presentations.

X5-Moodle

The X5-Moodle is a Moodle activity plugin implemented based on two key ideas: 1) providing AI-based smart tools for delivering open resources as a support during the course session, and 2) evolving the tools through the usage-based approaches rather than focusing on the user data. The aim of the plugin is to give teachers and students the best learning experience. Using the OER collection and the AI tools developed within X5GON, a new learning activity is designed following the Moodle specification and workflow, as well as the growing trend of using AI to support learning.

Miro

Miro is a third-party tool that allows the creation of interactive whiteboards and can be embedded using a HTML embed code.

Flip (formerly Flipgrid)

Flip is a free app from Microsoft that allows educators to create safe groups for students to engage in the curriculum using short video, text, and audio messages.

Vimeo

Vimeo is a video streaming service that enables specific configurations and streaming of video content to designated destinations. It allows for the creation and embedding of videos, with full control over what content is displayed to the user once the videos are complete, and it is ad-free.

Turnitin

Turnitin is a service that integrates with Moodle. It is a comprehensive plagiarism detection and academic integrity tool widely used in educational institutions.

Proctored exams

Moodle has the capability through the use of plugins to perform an amount of proctoring of exams. For a more enhanced proctoring solution it also integrates with Smowl and other proctoring solutions for a full in-depth proctoring solution.

Didactic tools

Many didactic training methods and tools are to be implemented on the platform. These are being identified by UNIBO and implemented as required.

Labs

In the later phases of the Digital Learning Platform we will identify if and when labs are needed. We are investigating add-ons to Moodle and ManageX Labs. The pilot testing and review stage will help identify the best solution that fits the needs of Digital4Business learners.

Full Fabric

Full Fabric

Full Fabric is an end-to-end admissions and enrolment platform that helps recruit, admit and enrol students at scale.

Full Fabric includes the following basic blocks:

1. “Foundation” CRM system
2. “Origin” admissions system
3. “Core” student information system

Full Fabric provides students with the entire user experience and user workflows outside of the learning content, which is provided by the Moodle LMS system.

Full Fabric covers the following aspects of the user journey:

- Student application
- Eligibility process
- Onboarding
- Remarketing and reminders (GDPR-compliant)
- Online payments
- Course enrollment
- Student dashboard and links to LMS

Digital 4 Business admissions process and candidate lifecycle with Full Fabric

The following is a summary that describes the planned admissions process for Digital4Business's Admission team and the candidate lifecycle, which will be tailored and adapted if needed following the pilot and user testing.

Suggested prospect lifecycle in Full Fabric

Prospect state	Description
Cold	The prospect has signed up on the portal
Pass eligibility	The prospect has submitted and passed the eligibility assessment
Review eligibility	The prospect has submitted and failed the eligibility assessment which will now be reviewed by the academics
Fail eligibility	The prospect has submitted and failed the eligibility assessment after review
Started application	The prospect has started an application

Suggested applicant lifecycle in Full Fabric

Applicant state	Description
Submitted	The applicant has submitted their application
Admitted	The applicant has been admitted after admissions team review
Needs Board review	The applicant has been reviewed by the admissions team and needs to be reviewed by Board
Board admitted	The applicant has been admitted after Board review
Rejected	The applicant has been rejected after Board review
Started enrolment	The applicant has started the enrolment form
Student enrolled	The applicant has submitted the enrolment form and paid tuition
*Withdrawn	The candidate has decided to withdraw the application – this sub-state is available throughout the lifecycle

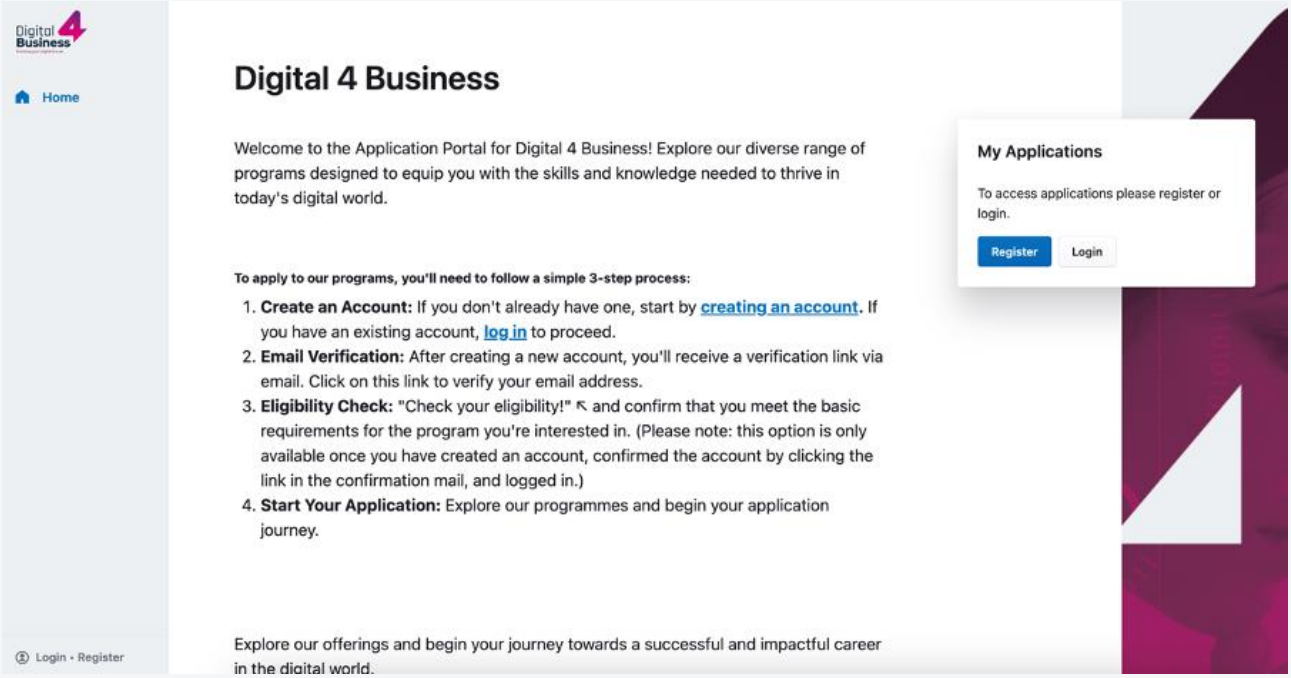
Admissions/enrolment process narrative

Step 1

Applicant accesses client website and clicks “Apply Now” OR applicant clicks “Apply Now” through email call to action.

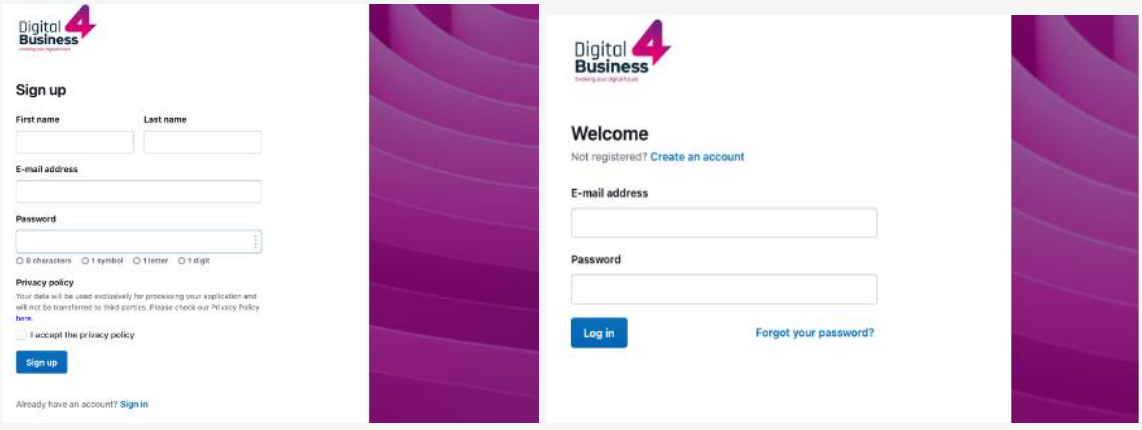
Step 2

Applicant is redirected to the Full Fabric Client Platform’s Home Page with instructions on the client’s process:



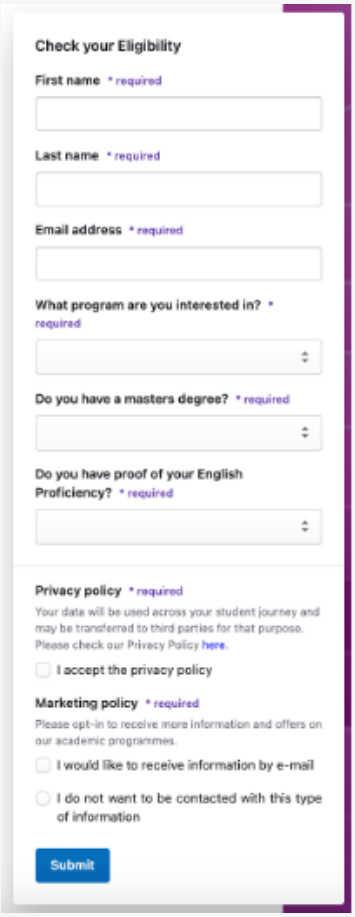
Step 3

Applicant Signs Up/Logs In to the portal:



Step 4

Applicant will have to complete the Eligibility Assessment for Digital4Business's programmes (selecting the programmes they are interested in:

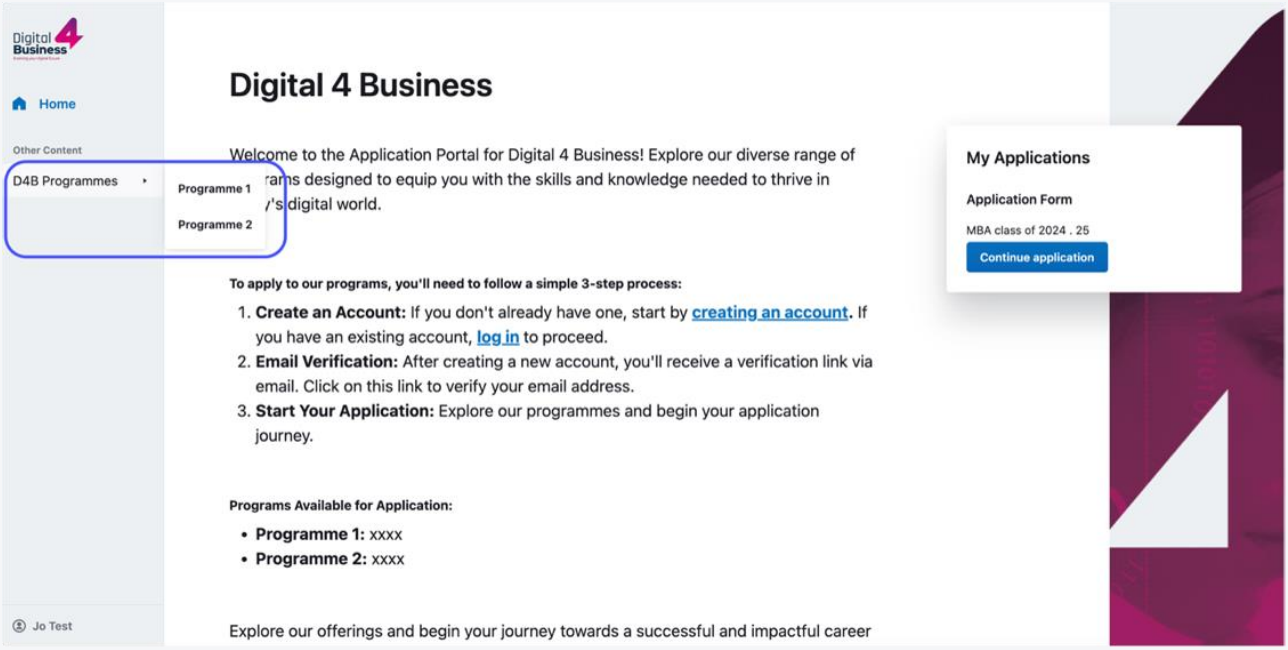


Result 1: Eligibility Assessment - PASS

Applicant receives an immediate and automatic email confirming they can now apply to the programme. – State: Prospect_eligibility_pass

YES: Applicant receives an email confirming they can now apply to the programme. - Prospect_eligibility_pass

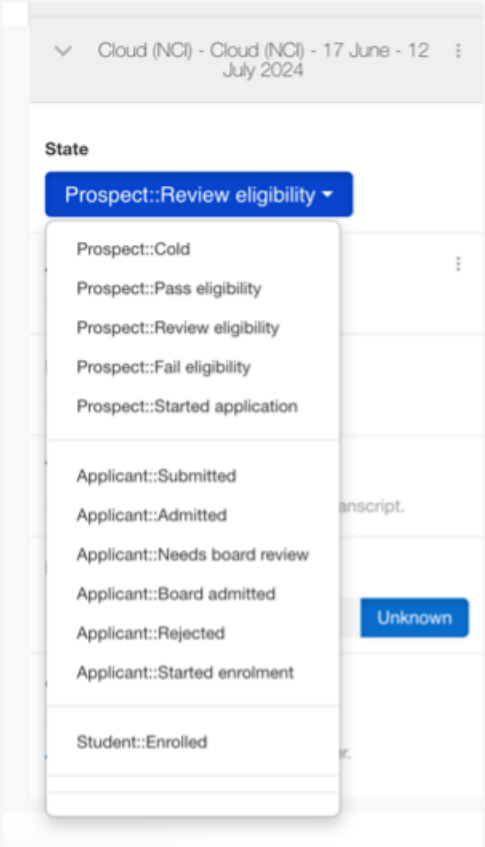
If **PASS/YES** - Applicant navigates to the relevant page to start/continue their application:



Result 2: Eligibility Assessment - FAIL

State: Prospect_eligibility_review – A notification is sent to the relevant team (based on programme) to review and decide if applicant will be allowed to apply:

NO: Applicant receives rejection email. - Prospect_eligibility_fail



Step 5

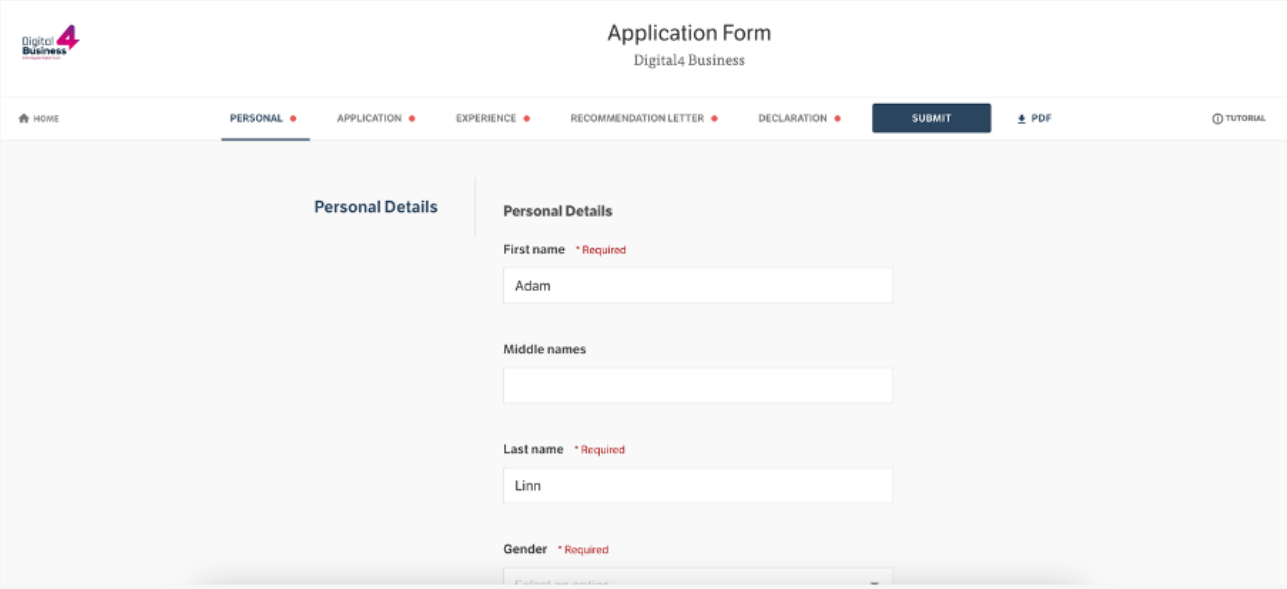
Applicant validates their email address through a link received automatically by email.

Step 6

Applicant starts the application and fills out all relevant information - Prospect_started_application:

Each tab of the application form contains the relevant questions and uploads required by the applicant to apply to the programme in question.

The content of the application form is customizable and changeable at any time.



Step 7

Applicant submits the application form – an automatic confirmation email is sent to the applicant and a notification sent to the admissions team to review the application form. – State: Applicant_submitted

Step 8

Admissions team will review the application forms submitted, using evaluation forms, to guarantee the profile is admissible to the programme:

Step 9

Admissions move the applicants to the relevant state according to the results of their review:

IMAGE

- State: APPLICANT_ADMITTED – Applicant receives automatic acceptance letter with instructions on next steps.

- State: APPLICANT_NEEDS BOARD REVIEW – Notification sent to Board members to review application form.

Step 10

Board reviews applicants' applications and makes a decision on each applicant, recording it on the evaluation form and submitting the evaluation:

Step 11

Admissions receives a notification with the results of the Board evaluation and proceeds with the necessary actions for each applicant's decision – Move the applicant state to the relevant one:

- State: APPLICANT_REJECTED - Applicant is sent an automatic email informing them that they have been rejected.
- State: APPLICANT_BOARD ADMITTED - Applicant receives automatic acceptance letter with instructions on next steps.

Applicant Admitted Or Applicant Board Admitted

Step 1

The transcripts and payment plans are automatically generated for the applicant:

Transcript

Will include the list of courses they can select as part of the programme/certificate (for the master's)

Payment plan

A full payment upfront plan that the applicant will need to pay to enrol in the courses of the programme/micro-credentials.

- Note: The full payment upfront plan is the default plan, but it can be customised manually on a case-by-case basis by decision of the Digital4Business Consortium.

Step 2

Applicants are sent an email, with the acceptance letter attached, informing them of their acceptance and to log in to select their courses and pay their tuition.

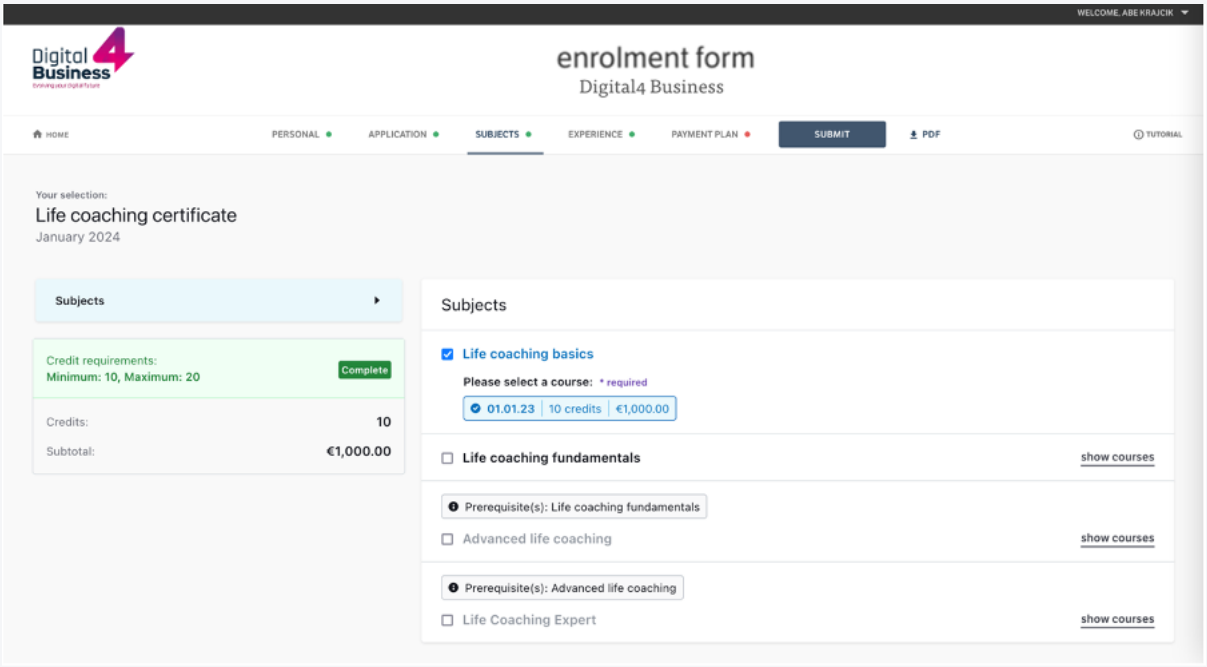
Step 3

The applicant logs in to the FF portal and sees an area with the enrolment form where they will select their courses and pay their tuition.

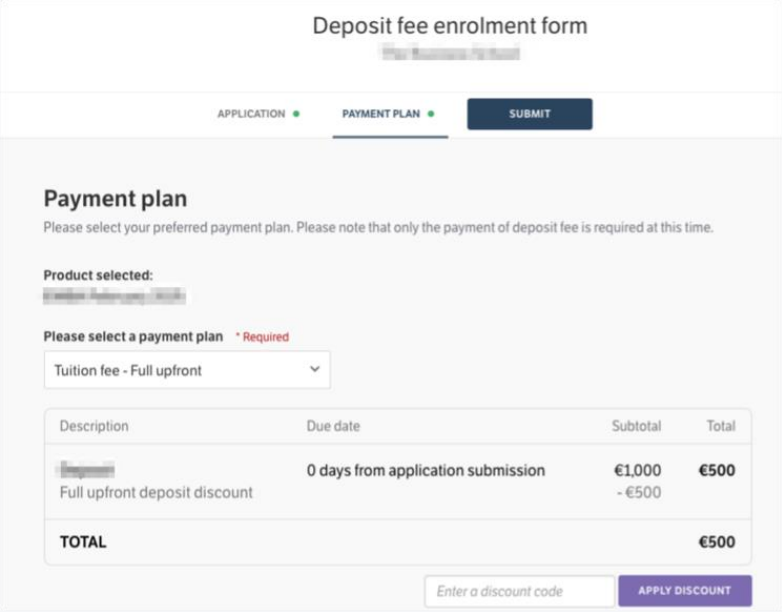
Step 4

Applicant starts their enrolment form – state: Applicant_enrolment_started

Selecting courses:



Tuition payment



Step 5

Applicant submits their enrolment form. Their profile state is automatically moved to Student_Enroled and a notification is sent to the admissions team.

Student enrolled

Step 1

API integration is triggered to send student data and course enrolments to Moodle.

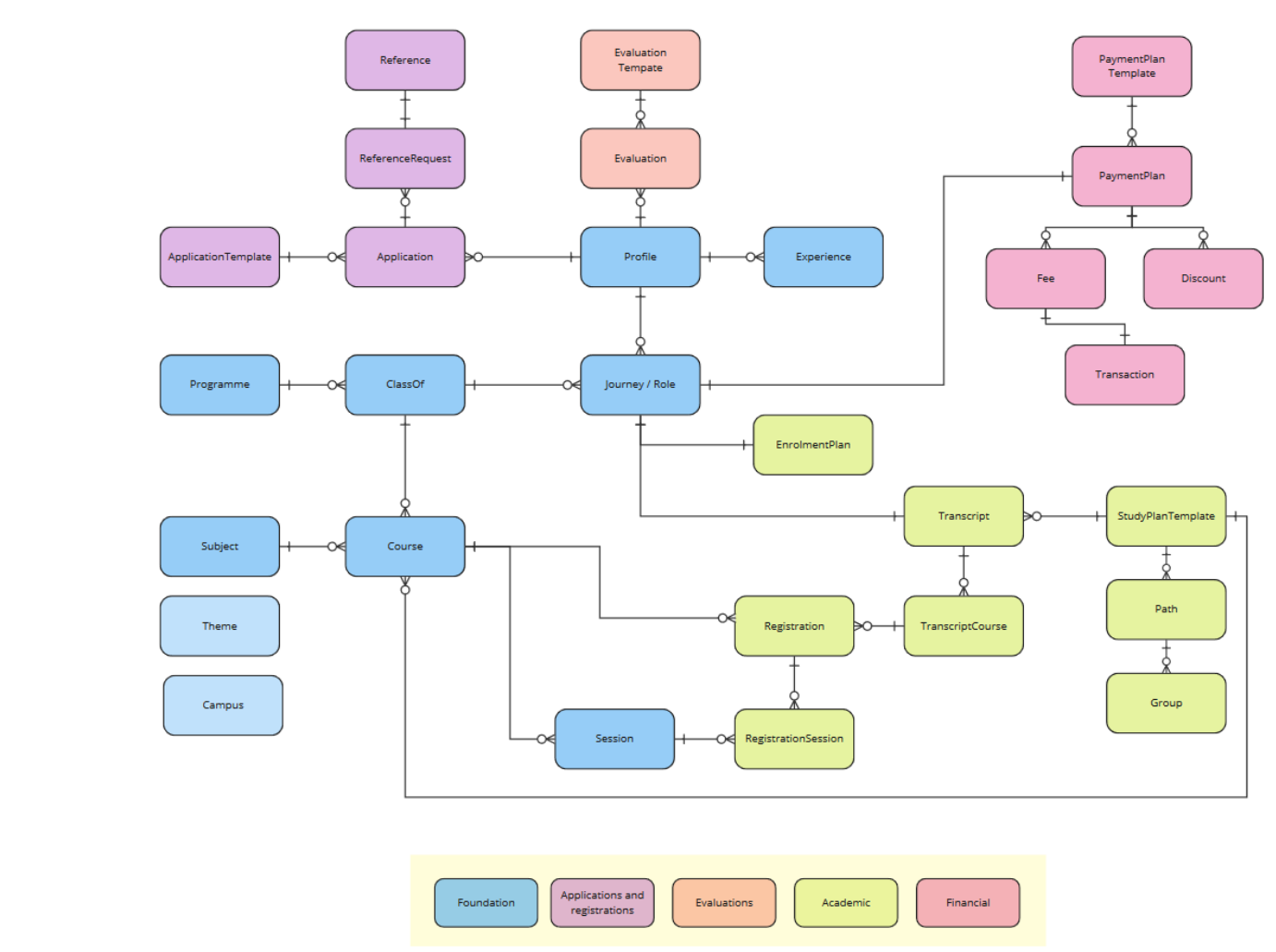
Full Fabric API introduction

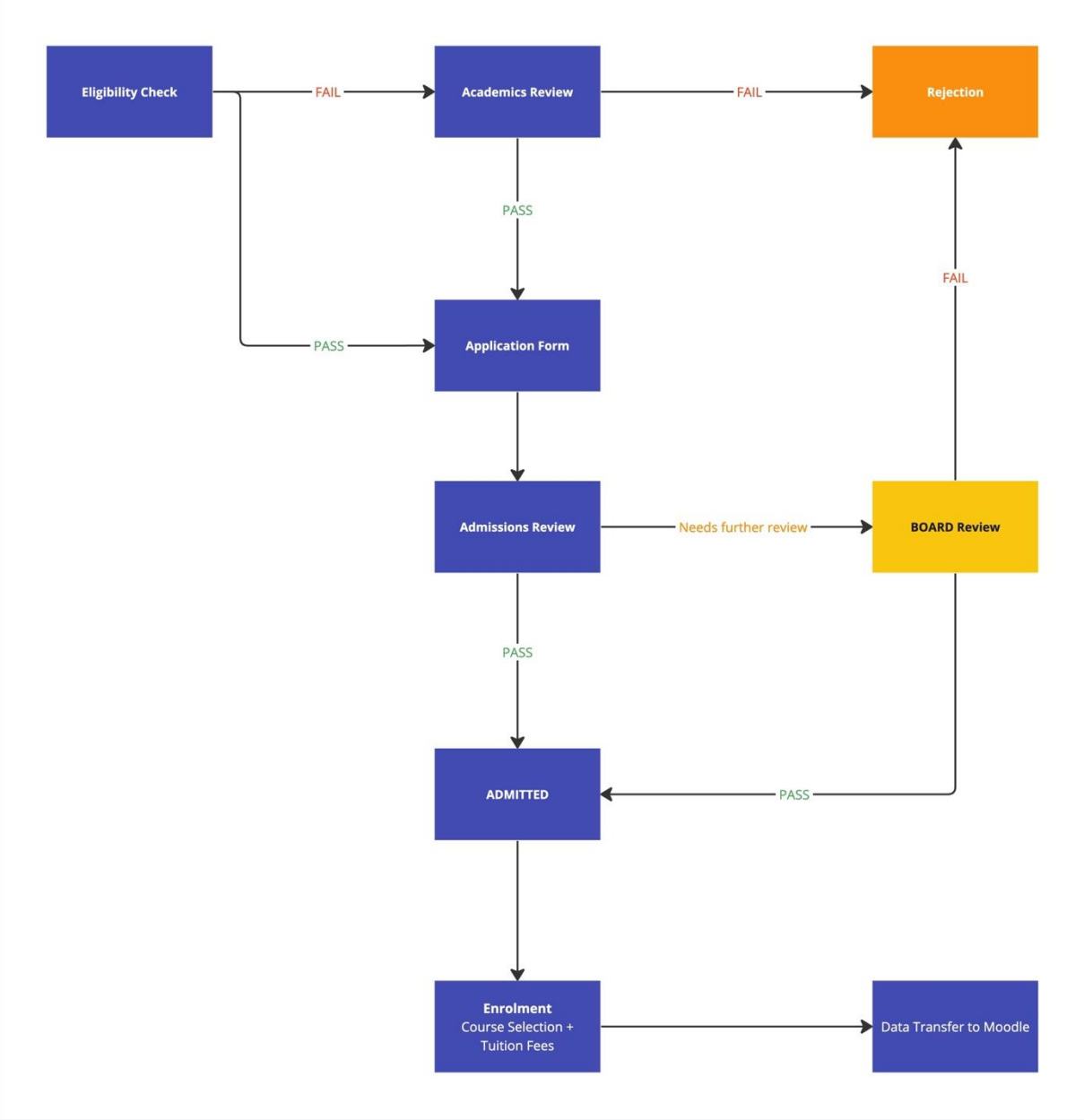
- Full Fabric uses HTTP verbs and a RESTful endpoint structure
- Rate limiting:
  - 40 per 8 seconds
  - 180 per 1 minute
  - 10,000 per 1 hou
- Secure encrypted communication over internet:
  - via SSL / HTTPS
  - in JSON format
- Low data throughput requirements
  - User unit registrations and grades = 2.44 KB
  - Courses = 0.23 KB per course
  - User profile = 4.7 KB
    - Hypothetically, if a 1000 signups convert to students at the same time, it will result in a data transfer of 4.7MB, taking 1Gbps line 0.038 seconds to transfer.
    - In such case, rate limiting will be the bottleneck and the operation will be artificially rate-limited and it will take five minutes.
    - As new signups will take days to convert students and start the programme, this latency is negligible.

```
[
  {
    "Id": 0,
    "FirstName": "string",
    "LastName": "string",
    "Name": "string",
    "EmailAddress": "string",
    "TerritoryId": 0
  }
]
```

Full Fabric entity | relationship diagram

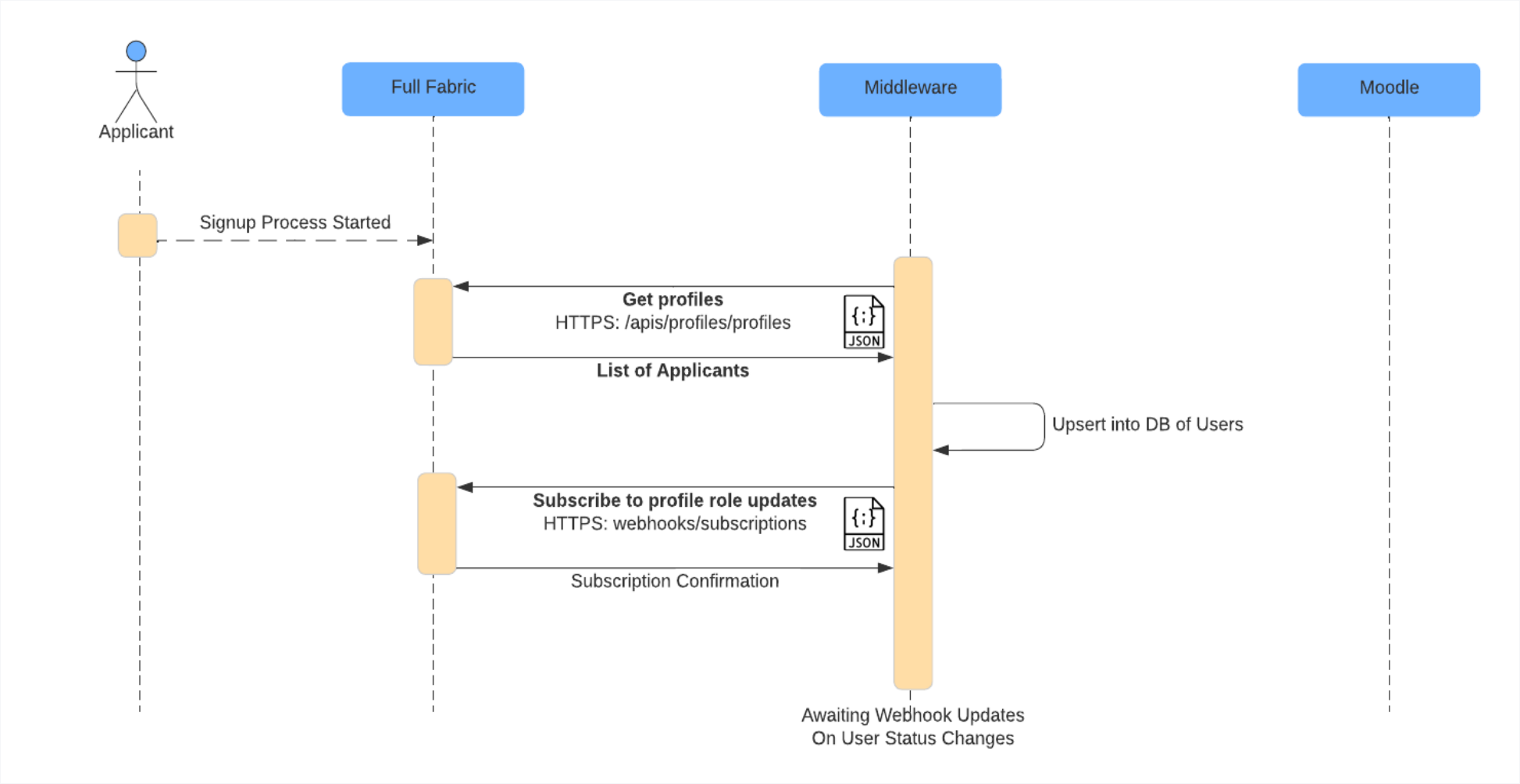
Provided by Full Fabric




Eligibility Check
FAIL
Academics Review
FAIL
Rejection
PASS
FAIL
PASS
Application Form
Admissions Review
Needs further review
BOARD Review
PASS
ADMITTED
PASS
Enrolment
Course Selection +
Tuition Fees
Data Transfer to Moodle

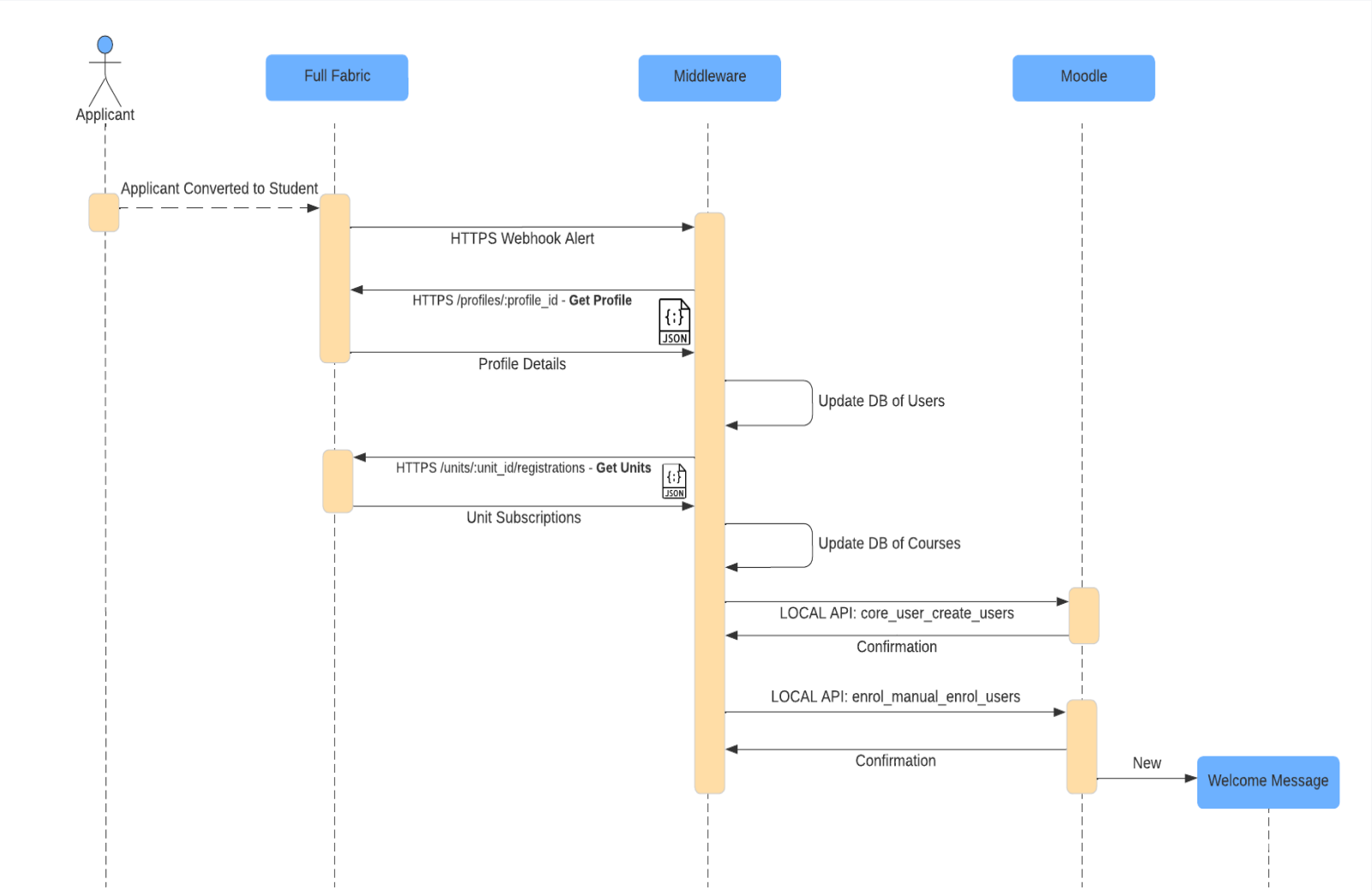
Sequence diagram of integration workflow 1

Subscription to User Updates



Sequence diagram of integration workflow 2

User import and enrolment

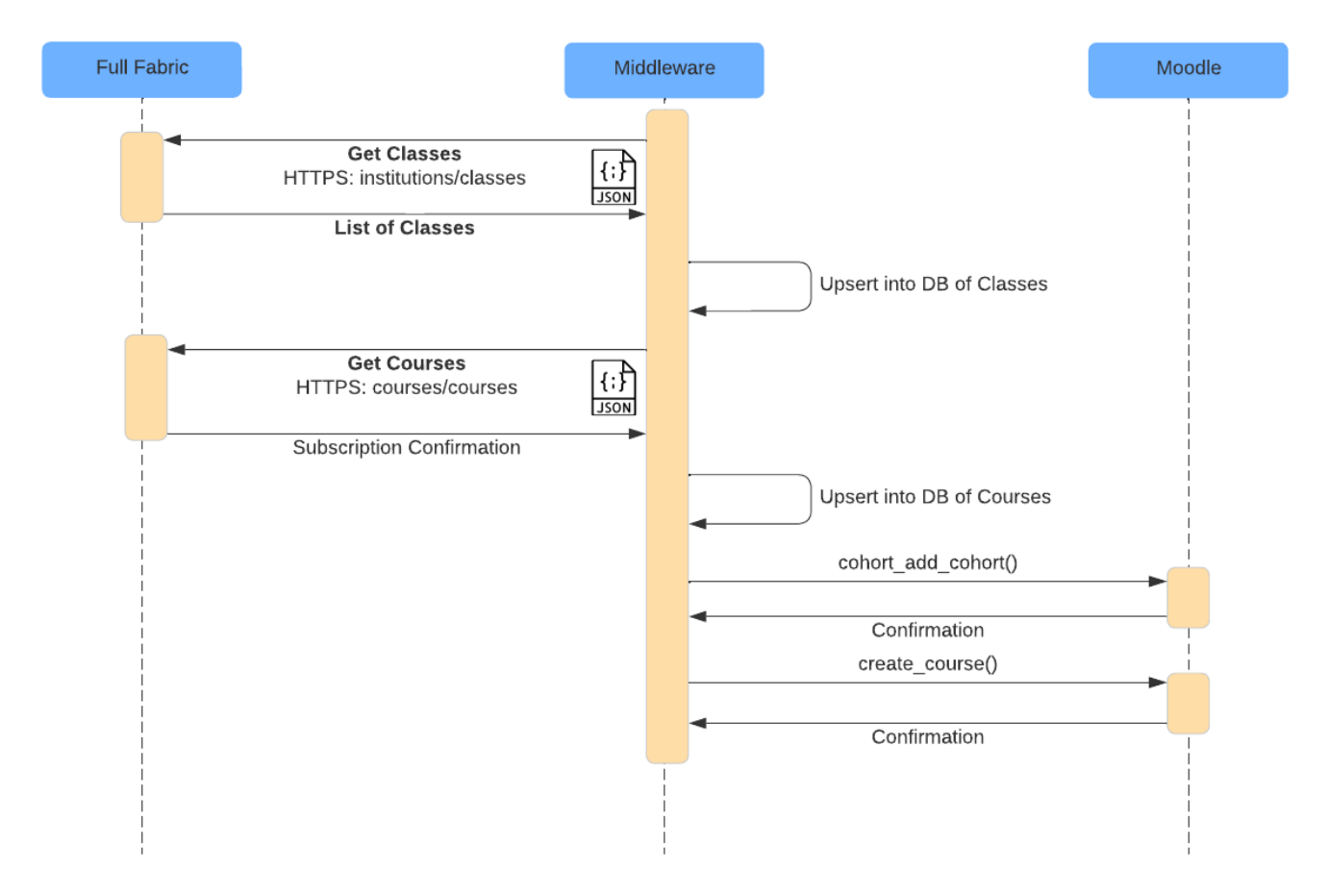


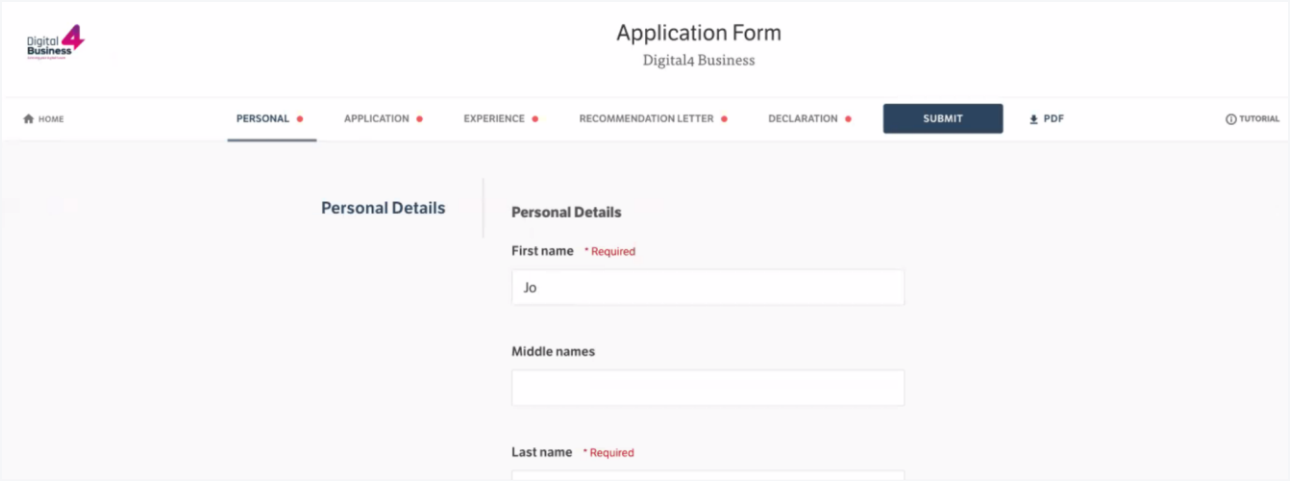
Integration workflow 3

Synchronisation of classes and courses

Sequence Diagram

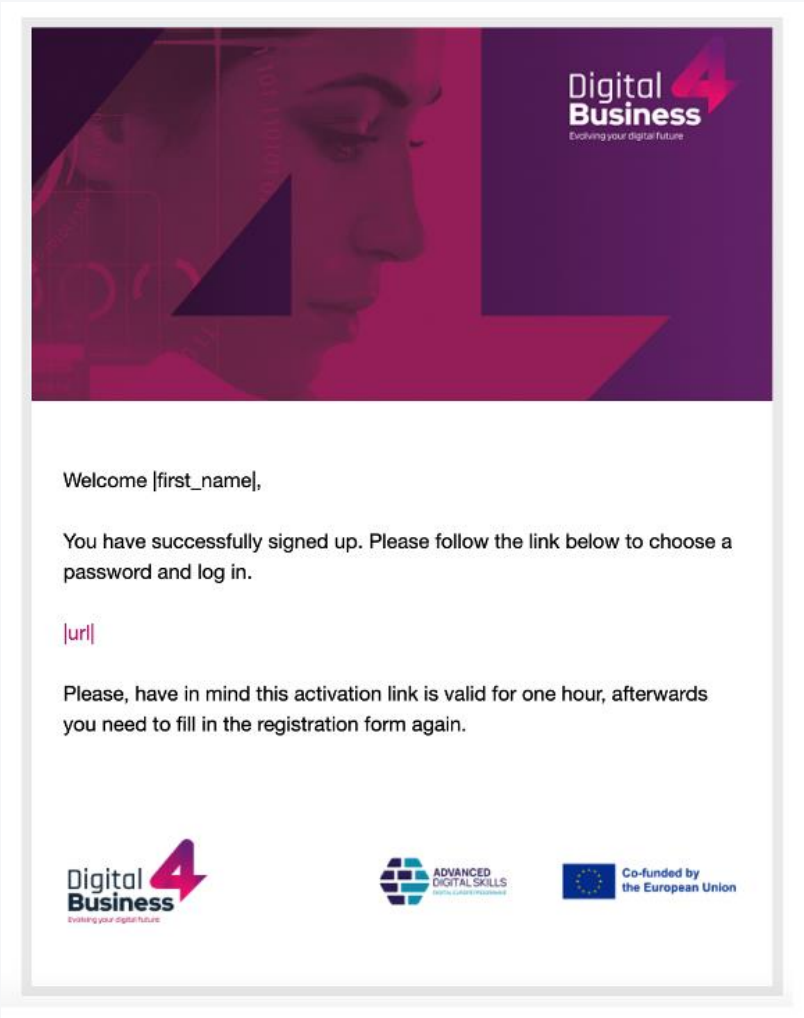
Daily overnight process



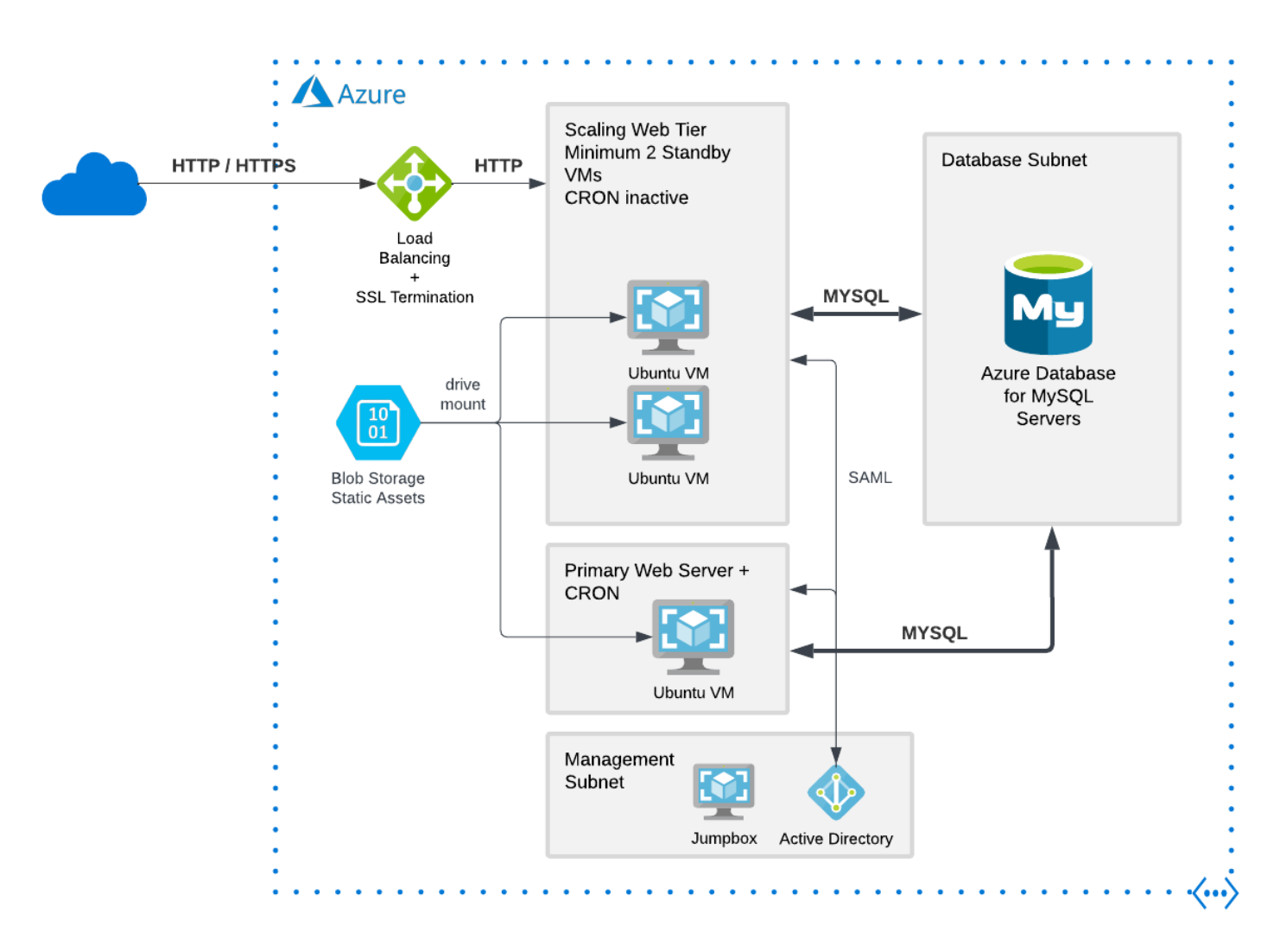


Emails

Full Fabric offers a suite of automated emails that can be configured with customisable messages that can be sent as required. We have applied the brand guidelines and the template is as follows:



Hosting


Azure
HTTP / HTTPS
HTTP
Load Balancing + SSL Termination
Scaling Web Tier
Minimum 2 Standby VMs
CRON inactive
Ubuntu VM
Ubuntu VM
drive mount
Blob Storage Static Assets
MYSQL
Database Subnet
Azure Database for MySQL Servers
SAML
Primary Web Server + CRON
Ubuntu VM
MYSQL
Management Subnet
Jumpbox
Active Directory

The hosting topology diagram above outlines the basic elements of the proposed hosting platform. It consists of the following basic components:

1. Application-layer load balancer with SSL termination
2. Primary web server with CRON jobs
3. Secondary auto-scaling web tier
4. A shared file storage
5. Central MySQL (MariaDB) database
6. Azure Active Directory

Technical support

Several partners will provide technical support for this extensive platform, which comprises many integrated components. Full Fabric will support the Consortium's entire system.

Our hosting partner will fully support the hosting platform, servers and databases for both Moodle and the main Digital4Business website.

The platform developers, Matrix Internet, will provide support for Moodle.

Digital 4 Business

Evolving your digital future

Legal disclaimer

The European Commission's support to produce this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Project 101084013 — Digital4Business — DIGITAL-2021-SKILLS-01