

# Legitify User Manual

## Document Information

Document Title     **Legitify User Manual**

Date                02/05/2025

Authors              Padraig Mann,  
                         Christopher Dobey

Supervisor          Sahraoui Dhelim

---

## Table of Contents

<b>Legitify User Manual</b>	<b>1</b>
Document Information	1
Table of Contents	1
Introduction	2
About Legitify	2
System Requirements	2
Installation Guide	3
Prerequisites	3
1. Docker	3
2. Supabase CLI	3
3. Node.js and npm	4
4. Unix/Linux Tools	4
5. Go (golang)	4
6. PostgreSQL	5
7. Fabric Binaries	5
Local Deployment Script	5
Getting Started	6
Account Types	6
Registration Process	6
Logging In	10
Issuer User Guide	11
Issuer Dashboard Overview	11
Issuing Credentials	12
Holder User Guide	16
Holder Dashboard Overview	16
Manage Credentials	17
Manage Issuer	18

Access Requests	18
Verifier User Guide	19
Verifier Dashboard Overview	19
Issuer Profile Management	20
Profile Management	21
Verify Credential	24
Search Users	26
Accessible Credentials	27
Common Features	28
Profile	28
Settings	31
Glossary	33

---

## Introduction

### About Legitify

Legitify is a blockchain-based credential verification platform that allows issuers to issue digital credentials, holders to manage and share them, and verifiers to verify their authenticity instantly. Our aim is to provide a way of verifying credentials in an attempt to eliminate credential fraud. Our platform has three separate accounts for each role in the process of issuing the credential to it being verified by a verifier. This manual is intended to be used by our users to break down the functions associated with each account type.

## System Requirements

### For End Users (Web Interface)

Component	Minimum Requirement
Web Browser	Chrome 90+, Firefox 88+, Safari 14+, Edge 90+
Internet Connection	1 Mbps or faster
Screen Resolution	1280 x 720 or higher
Device	Desktop, laptop, tablet, or mobile phone

### For System Administrators (Installation)

Component	Minimum Requirement
CPU	4 cores

RAM	8GB (16GB recommended)
Disk Space	10GB available
Operating System	Linux (Ubuntu 20.04+), macOS, or Windows with WSL2
Docker	Docker 20.10.x+ and Docker Compose
Node.js	v14+
Go	V1.17+

## Installation Guide

### Prerequisites

Before installing Legitify, ensure you have the following prerequisites installed:

#### 1. Docker

Docker is required to run containerised services including the Hyperledger Fabric network.

Installation:

Ubuntu:

```
sudo apt update
sudo apt install docker.io docker-compose
sudo systemctl enable --now docker
sudo usermod -aG docker $USER
```

macOS/Windows:

Download and install Docker Desktop from [Docker's official website](#).

Verify installation by running: `docker --version`

#### 2. Supabase CLI

The Supabase Command Line Interface is required for managing the local database.

Installation:

- Using npm:

```
npm install -g supabase
```

- Using Homebrew (macOS):

```
brew install supabase/tap/supabase
```

Verify installation by running: `supabase --version`

### 3. Node.js and npm

Required to build and run both server and client applications.

**Installation:**

Download and install from [Node.js official website](#).

Recommended version: Node.js 14.x or later.

Verify installation by running: `node --version` and `npm --version`

### 4. Unix/Linux Tools

The script requires standard Unix utilities. These are included by default on macOS and Linux.

For Windows users: Install Windows Subsystem for Linux (WSL)

```
wsl --install
```

### 5. Go (golang)

Go is required for Hyperledger Fabric chaincode development and certain network operations.

**Installation:**

**Ubuntu:**

```
sudo apt update
```

```
sudo apt install golang-go
```

**macOS:**

```
brew install go
```

**Windows:** Download and install from [Go's official website](#).

Recommended version: Go 1.17.x or later

After installation, set up your Go environment:

```
echo 'export GOPATH=$HOME/go' >> ~/.profile
echo 'export PATH=$PATH:$GOPATH/bin' >> ~/.profile
source ~/.profile
```

Verify installation by running: go version

## 6. PostgreSQL

The base version of PostgreSQL is also required, the database itself will be configured through Supabase.

<https://www.postgresql.org/download/>

Alternatively you can run PostgreSQL through Docker

[https://hub.docker.com/\\_/postgres](https://hub.docker.com/_/postgres)

## 7. Fabric Binaries

1. Navigate to ‘src/ledger’:

```
cd src/ledger
```

2. Run`install-fabric.sh :

```
bash install-fabric.sh --fabric-version 2.5.10 binary
--ca-version 1.5.13
```

3. Verify the `bin/` folder contains the Fabric CLI tools (`peer`, `orderer`, etc.).

4. Set Executable Permissions (if needed):

```
chmod +x bin/*
```

## Local Deployment Script

The script ‘local-deploy.sh’ automates the following operations:

- Starts and configures the Hyperledger Fabric blockchain network
- Initializes a local Supabase database instance
- Sets up the application database schema and initial data
- Launches the backend Node.js server
- Runs system verification tests
- Starts the frontend client application
- Provides an interactive session for ongoing system management

Ensure all prerequisites are installed before running the script

---

## Getting Started

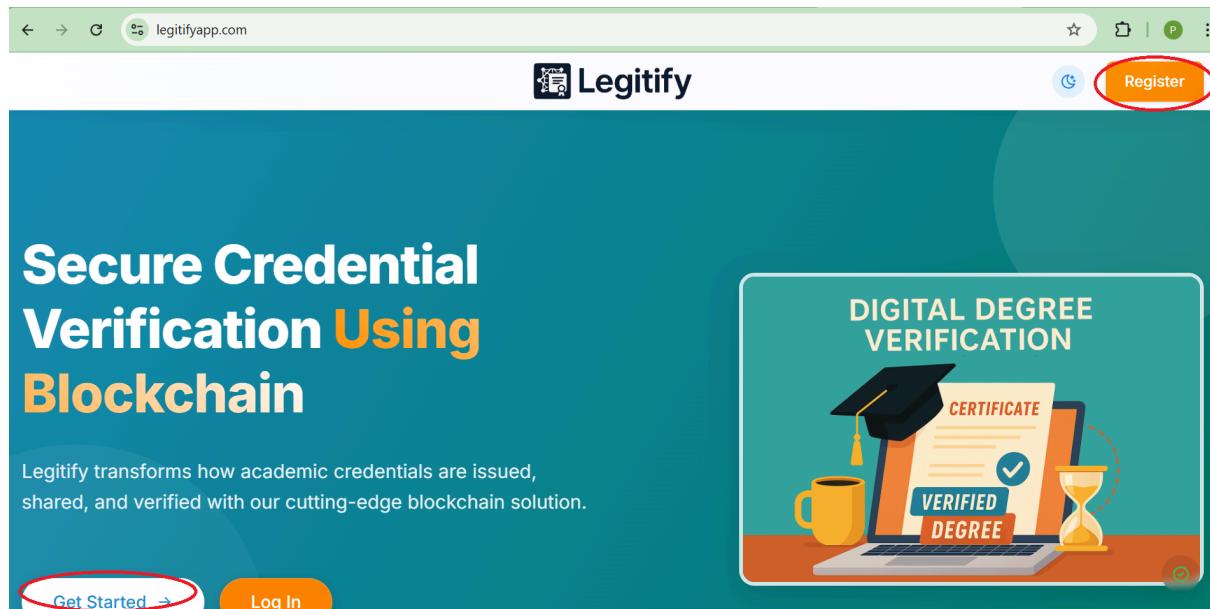
### Account Types

Legitify supports three types of user accounts:

1. **Issuer Account:** For institutions that issue credentials
2. **Holder Account:** For recipients of issued credentials
3. **Verifier Account:** For organisations that wish to verify credentials

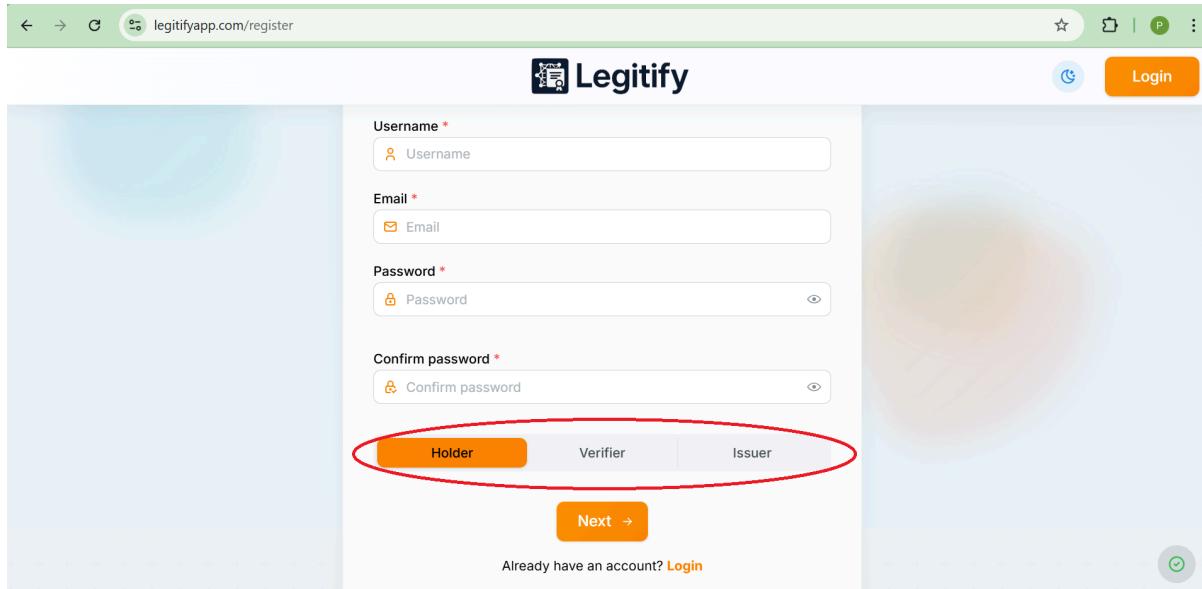
### Registration Process

In order to access the main functionality of the platform, you are required to register an account with us. Navigating to [legitifyapp.com](https://legitifyapp.com) will present you with the following webpage:



## **Step 1**

As you can see encircled in the top right hand corner is a button that will bring you to the registration page where you can begin the registration process. You can also press the 'Get Started' button in the bottom left corner that will bring you to the same page.



This is the first step of the registration process, you are asked to create a username (must be unique), input your email address (also cannot have been used by another account) and to create and confirm your password for the account. As you can see encircled in the above image, you are then asked to select what type of account you are registering. Once you have made a selection, click the 'Next' button, this will bring you to the next step of the registration process. This step is different depending on which account type you selected.

## Step 2

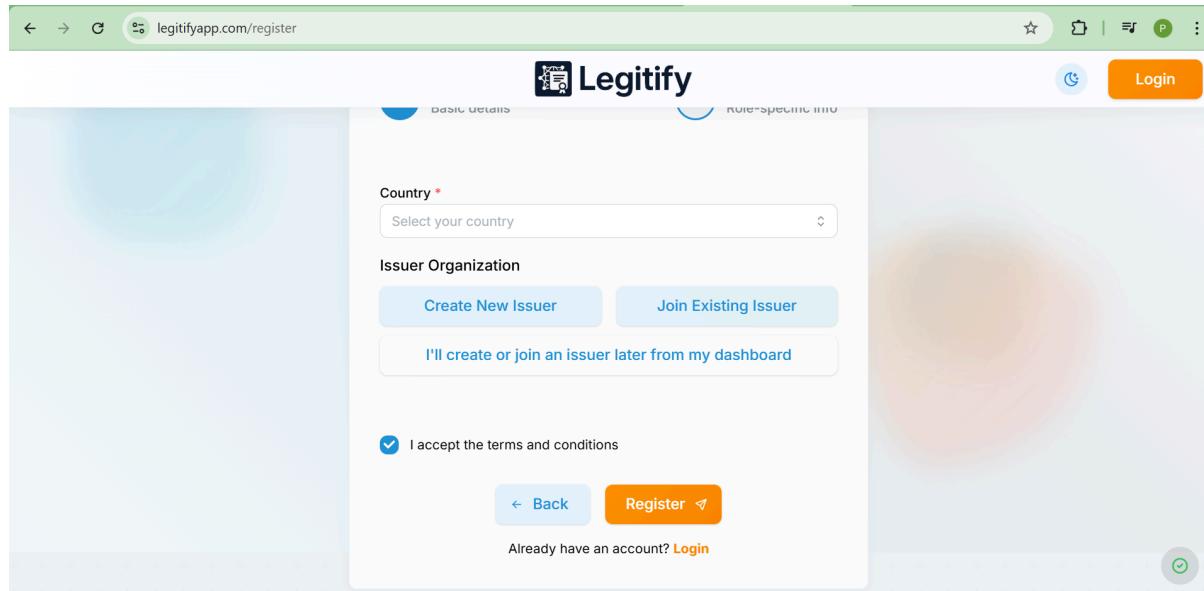
### Issuer Registration

The screenshot shows the Legitify registration interface. At the top, there's a navigation bar with back, forward, and search icons, followed by the URL 'legitifyapp.com/register'. The main header is 'Legitify' with a logo. On the right side of the header is a 'Login' button. Below the header, there are fields for 'Country \*' (with a dropdown menu labeled 'Select your country'), 'Issuer Organization' (with three options: 'Create New Issuer' (selected), 'Join Existing Issuer', and 'I'll create or join an issuer later from my dashboard'), 'Issuer Name \*' (with a text input field for 'Full name (e.g., Dublin City University)'), 'Short Name \*' (with a text input field for 'Abbreviation (e.g., DCU)'), and 'Description' (with a text input field for 'Brief description of the issuer'). A progress indicator icon is visible on the right.

This is the page you will see if you selected Issuer. At the top of the page you will see that you must select a country, you will be prompted to select from a dropdown list of three countries (United States, United Kingdom and Ireland). Next you must choose one of the three presented options, “Create New Issuer”, “Join Existing Issuer” or “I’ll create or join an issuer later from my dashboard”. The above page displays the “Create New Issuer” option, this means that you must fill out some information regarding the Issuer organisation you are creating. You must give the full name of the Issuer and a shorter name or abbreviation, you can also provide a short description of the organisation if you wish.

The screenshot shows the Legitify registration interface. The 'Join Existing Issuer' option is now selected in the 'Issuer Organization' section. Below it, there's a new section titled 'Join an Issuer \*' with a sub-instruction 'Request to join an existing issuer'. A dropdown menu is shown with the placeholder 'Loading issuers...'. At the bottom of the page, there's a checkbox labeled 'I accept the terms and conditions' and two buttons: 'Back' and 'Register'.

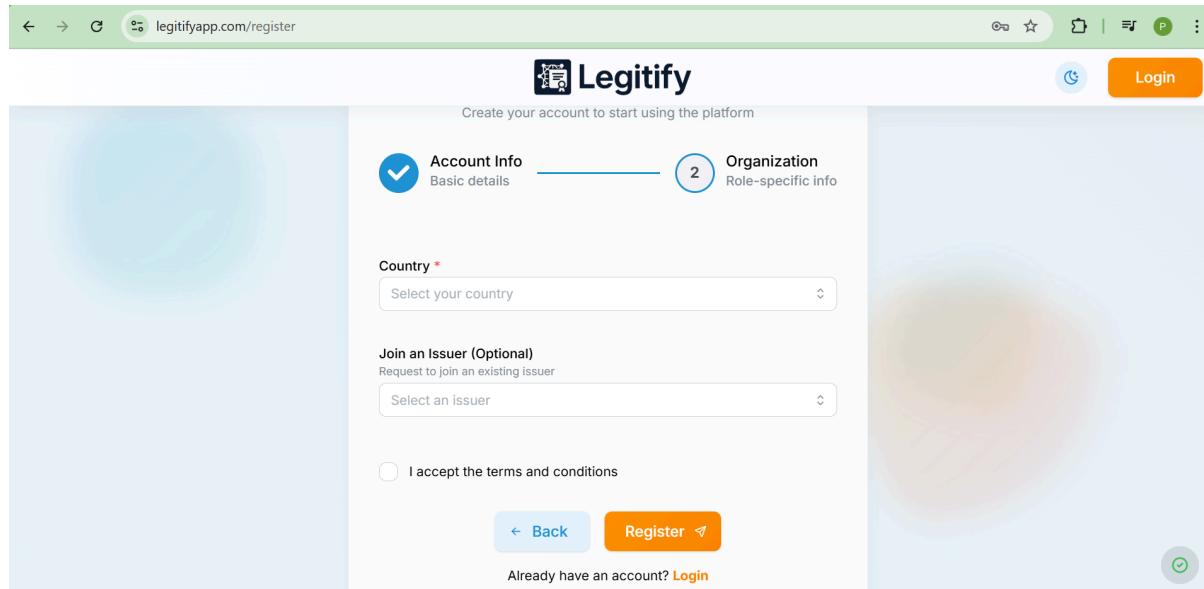
This is the page if you select the “Join Existing Issuer” option. You are given a drop down menu of all the Issuer Organisations and then you select the Issuer you wish to join.



This page is if you selected the “I’ll create or join an issuer later from my dashboard”. You will not be required to fill out any information at this time, however in order to create and issue credentials you must create or join an Issuer Organisation.

Finally, you must accept terms and conditions before creating your account.

## Holder Registration



This is the next step if you selected the Holder account. Similar to the Issuer selection you must select a country and you can join an Issuer organisation. However, alternatively to the Issuer account, it is not mandatory to join an Issuer organisation in order to use the platform.

If you do join an Issuer Organisation it allows you to receive credentials from that Issuer with ease. Again it is mandatory to accept the terms and conditions.

## Verifier Registration

Create your account to start using the platform

**Account Info** Basic details      **Organization** Role-specific info

Country \* Select your country

Organization Name (Optional) Organization Name

I accept the terms and conditions

[Back](#) [Register](#)

Already have an account? [Login](#)

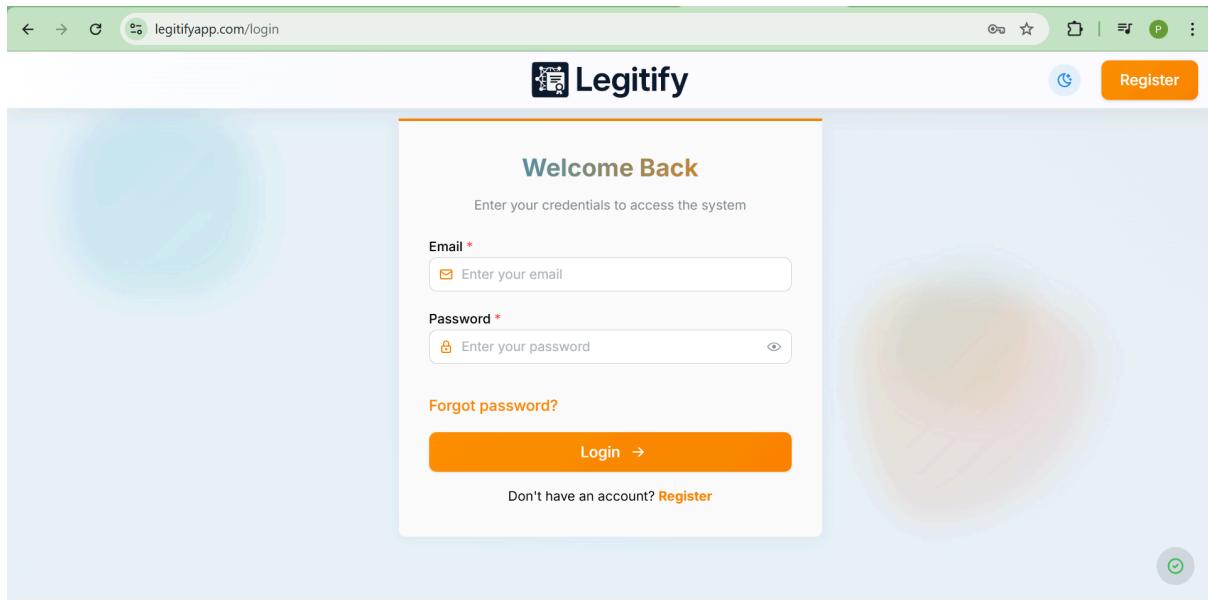
This is the next step if you selected a Verifier account. The same as the previous two selections, you must select which country you are in from the dropdown menu. Next you can input the name of the organisation you are verifying credentials for, but this is not mandatory. Finally, you must accept the terms and conditions.

## Logging In

You can navigate to the Login page from the home page by selecting the “Log In” button in the bottom left button, as shown below:



This is the Login page, it is the same regardless of the account you have registered. You must input the email address associated with your account and then the password to your account. Pressing the Login button will bring you to the dashboard of your account where you will be able to interact with the verification system.



## Issuer User Guide

### Issuer Dashboard Overview

This is the main Dashboard for the Issuer account and is what appears when you first log in. It allows the user to navigate through the platform and allows them to create credentials and view records of the Issuer Organisation they are part of. It also displays how many credentials have been issued by the Issuer Organisation and whether those credentials were accepted, rejected or pending. At the bottom of the dashboard there is a display of the recent activity of the organisation, the most recent credentials issued by the organisation.

Along the left hand side of the screen is the Navbar for the issuer. From top to bottom there is:

- Home: brings you back to the main dashboard
- Issue Credential: Create and issue a credential to a holder
- Blockchain Records: Displays all the records of credential issued by the organisation
- Manage Issuer: Manage the Holder and Issuer accounts associated with the Issuer organisation
- Settings: Update account and Issuer organisation information
- Logout: Logout of the account and return to website Home page

## Issuing Credentials

### Step 1

The screenshot shows the 'Issue New Credential' interface. At the top, there's a header with the title and a subtitle 'Issue new academic credentials securely'. Below the header is a navigation bar with icons for Home, Issue Credential (which is highlighted in blue), Blockchain Records, Manage Issuer, Settings, and Logout. The main content area is titled 'Issue New Credential' and 'Create a blockchain-verified credential certificate'. It features three tabs: 'Holder & Issuer' (selected), 'Credential Details', and 'Document Upload'. The 'Holder & Issuer' tab has fields for 'Issuing Organization' (with a dropdown menu) and 'Holder Email' (with a text input field). At the bottom right of the form is a 'Next Step' button.

This page displays the first step of the credential issuance process, here you are asked to select the organisation issuing the credential and then the email associated with the Holder.

### Step 2

The screenshot shows a web-based application for issuing credentials. At the top, there's a navigation bar with links to Home, Credentials, and Issue Credential. Below the navigation is a title 'Issue New Credential' with a subtitle 'Create a blockchain-verified credential certificate'. There are three main tabs: 'Holder & Issuer' (selected, indicated by a blue circle with a checkmark), 'Credential Details' (indicated by a blue circle with a pencil icon), and 'Document Upload' (indicated by a blue circle with an upward arrow icon). The 'Holder & Issuer' tab has a sub-section titled 'Required Information' containing fields for 'Credential Title' (with placeholder 'e.g. Certified Cloud Practitioner') and 'Credential Type' (with placeholder 'e.g. Certification, Diploma, Badge'). Below these are sections for 'Description' (placeholder 'Provide details about the credential, scope, etc.') and 'Optional & Custom Information'.

Next you required to fill out details regarding the credential you are creating, the required details are:

- Credential Title
- Credential Type
- Short description

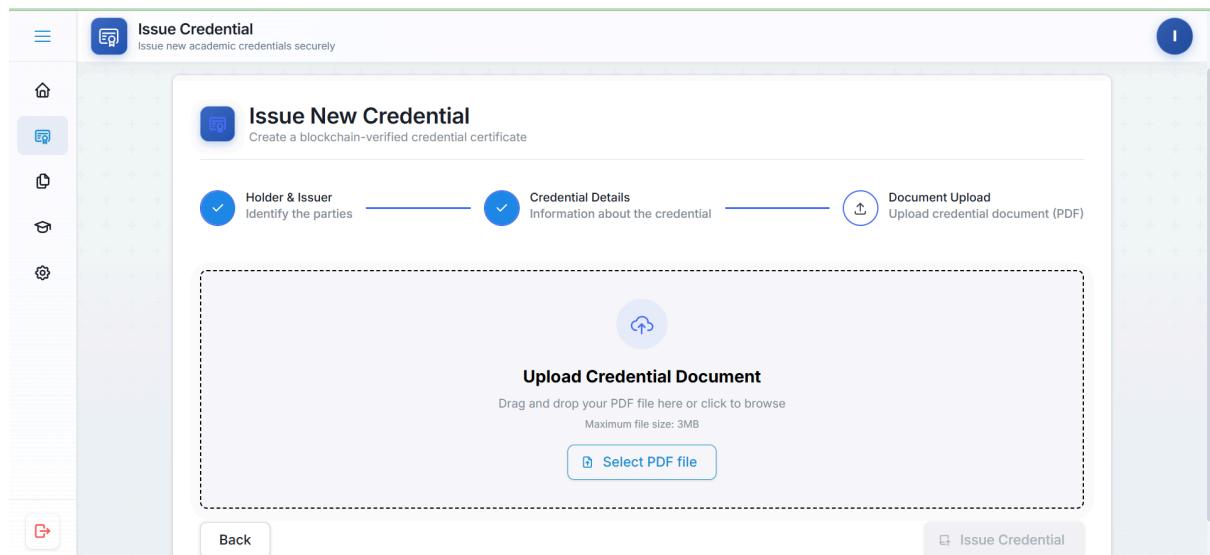
This screenshot shows the 'Optional & Custom Information' section of the credential issuance interface. It includes fields for 'Expiration Date' (placeholder 'Select expiration date'), 'Holder Identifier' (placeholder 'e.g. Student ID, Employee ID'), 'Program Duration' (placeholder 'e.g. 4 years, 6 months'), 'Grade / GPA' (placeholder 'Enter grade or GPA'), 'Honors / Distinctions' (placeholder 'e.g. First Class Honors, Magna Cum Laude'), and a section for 'Custom Attributes' with fields for 'Attribute Name' and 'Attribute Value' and a '+ Add Custom Attribute' button. Navigation buttons 'Back' and 'Next Step' are at the bottom.

The optional and custom details are as follows:

- Expiration date
- Holder Identifier (Student ID, Employee ID)
- Program duration
- Grade / GPA
- Academic distinctions

There is also the option to add a custom attribute to the credential

### **Step 3**



The final step is uploading a PDF file of the credential itself. If all steps were completed properly this will now send a credential to the Holder and they can review the details and decide to accept or reject the credential.

### **View Credential Records**

The screenshot shows a web-based application interface for managing blockchain records. On the left is a vertical sidebar with icons for Home, Credentials, and other account management options. The main content area has a header "Blockchain Records" with a sub-header "View all records stored on the blockchain". Below this is a breadcrumb navigation "Home > Credentials". A search bar at the top says "Search records...". The main table displays one record:

Credential	Holder	Institution	Issue Date	Status	Actions
Credential Certificate	Holder@test.com	IU	1 May 2025	Pending	<a href="#">View</a>

This page allows for the viewing of all credentials issued by the Issuer organisation linked with the account. From left to right is the details of each credential listed:

- Credential title
- Email address of holder
- Issuer institution who issued the credential
- The date it was issued
- The status of the credential (Accepted, Rejected or Pending)
- View credential

## Manage Issuer

### Holder Management

The screenshot shows the "Holder Management" section of the application. It includes tabs for "Actions", "Affiliated (1)", "Join Requests", and "Sent Invitations (0)".

**Invite Existing Holder:** A form with a placeholder "Holder Email \*". A button "Invite Holder" is visible.

**Register New Holder:** A note "Create new accounts for holders, automatically affiliating them with IU." and two buttons: "Register Holder" and "Batch Upload (CSV)".

**Issuer Administration:** A section titled "Admin Join Requests" with a message "No Admin Join Requests".

This page allows the Issuer to accept or deny join requests from Holders, so that they may be affiliated with the organisation. It also allows for the Issuer user to send invitations to join the Issuer organisation to Holders. Finally, from this page Issuers can create Holder

accounts that are automatically affiliated with the Issuer organisation, this can be done one at a time or the Issuer can upload a csv file that contains account details (email, username and password) for a number of Holders.

## **Issuer Administration**

The screenshot shows the Issuer Administration interface. On the left is a vertical sidebar with icons for Home, Holders, Admins, and Settings. The main area has two sections:

- Holder Email**: A form with a placeholder "Enter holder's email address" and a blue "Invite Holder" button.
- Register New Holder**: A section with the sub-instruction "Create new accounts for holders, automatically affiliating them with IU." It includes two buttons: "Register Holder" and "Batch Upload (CSV)".
- Admin Join Requests**: A table with one row:
 

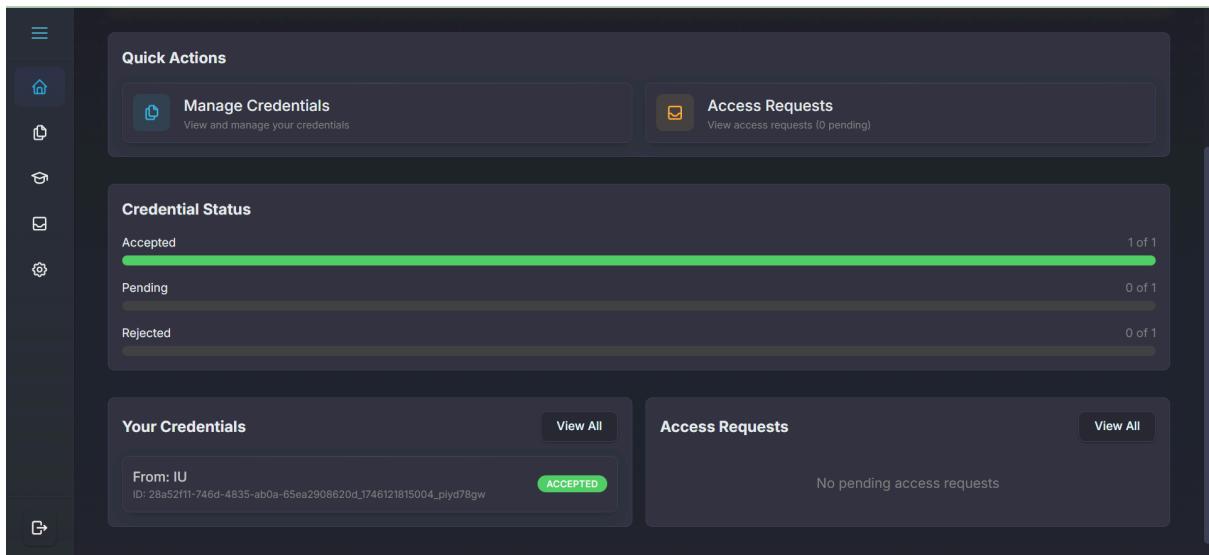
Admin User	Email	Requested On	Actions
issuer2	issuer2@test.com	02/05/2025	<input checked="" type="button"/> Approve <input type="button"/> Reject

When an Issuer account is created that joins an existing Issuer organisation rather than creating a new organisation, a request to become an administrator of the organisation is sent to an Issuer user already affiliated with the Issuer organisation. The Issuer who received the request can then either approve or reject the request.

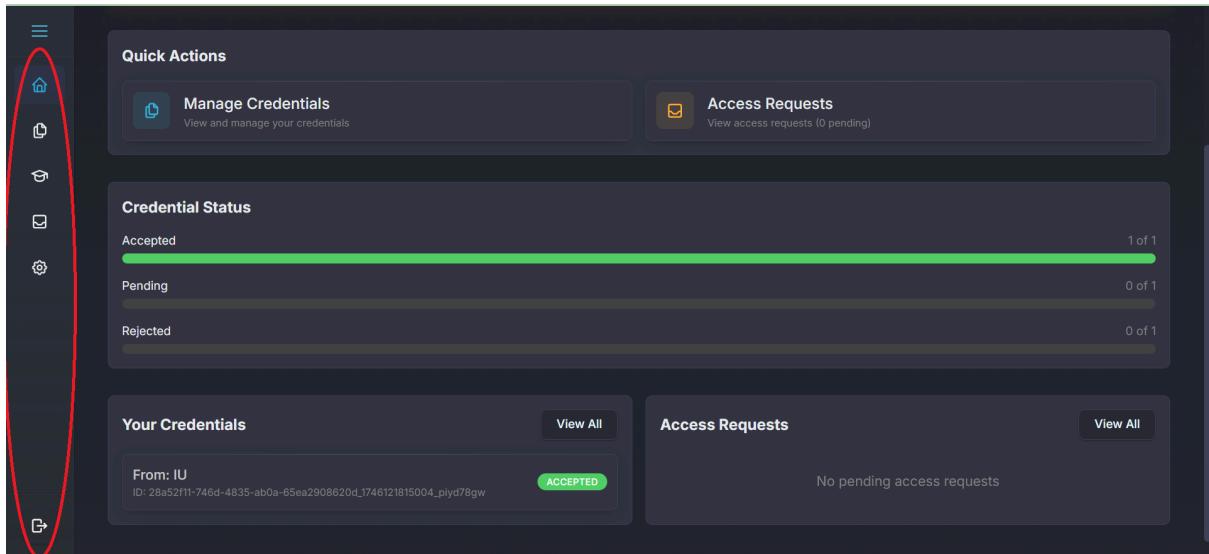
---

## **Holder User Guide**

### **Holder Dashboard Overview**



Above is the Holderl user dashboard, it is the first screen a Holder user sees when they log in. It allows the user to navigate the platform, accepting or rejecting credentials issued to them by Issuers, view their credentials and accept or decline verification requests from verifiers. It also displays if they have any pending requests or credentials which they need to accept or decline.



The navbar on the left side of the screen also allows the user to navigate the website. From top to bottom there is:

- Home: Brings the user back to the dashboard
- Manage Credentials: User views, accepts or rejects pending credentials
- Manage Issuer: Join and view Issuer organisations
- Access Requests: Accept or reject pending verification requests from Verifier users
- Settings: Update account information
- Logout: Logout of the profile

## Manage Credentials

The screenshot shows the 'Manage Credentials' page. At the top, there's a header with a logo and the title 'Manage Credentials'. Below the header, there's a section titled 'About Your Credentials' with a brief description. Underneath this, there are three tabs: 'PENDING' (0), 'ACCEPTED' (1), and 'REJECTED' (0). The 'ACCEPTED' tab is selected. A detailed view of one credential is shown, which is 'From: IU' dated 'May 1, 2025'. The credential has a 'Document ID' and a status indicator 'ACCEPTED'.

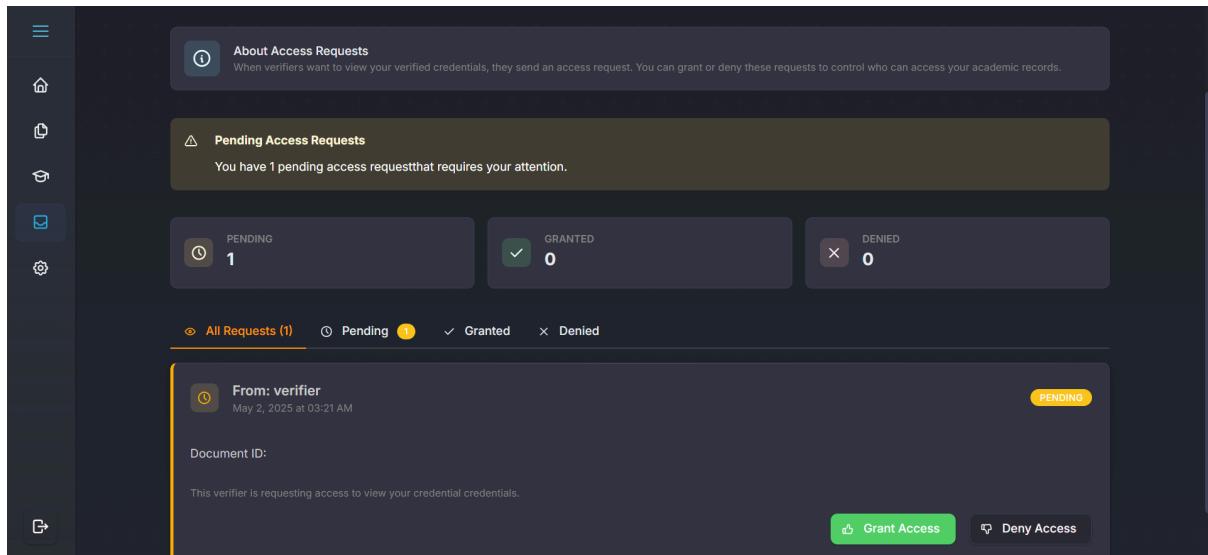
The Manage Credentials page is where the Holder user accepts or rejects credentials issued to them by an Issuer organisation. The incoming credentials are stored in three different tabs depending on their status with the number of credentials in each status given. All credentials, accepted, pending or rejected, are on display in the first tab.

## Manage Issuer

The screenshot shows the 'Manage Issuer' page. The header includes a logo and the title 'Manage Issuer'. Below the header, there's a breadcrumb navigation 'Home > Issuer'. A 'My Issuers' section displays 'Active Affiliations' (1) and 'Pending Requests'. One active affiliation is listed: 'IU ACTIVE MEMBER'. A note says 'No description available.' and shows 'Admin: Issuer'. There's a 'View Details' button and a '+ Join Issuer' button.

This is the Manage Issuer section where a Holder can view details on the Issuer organisations they are associated with. They can also create requests to join Issuer organisations.

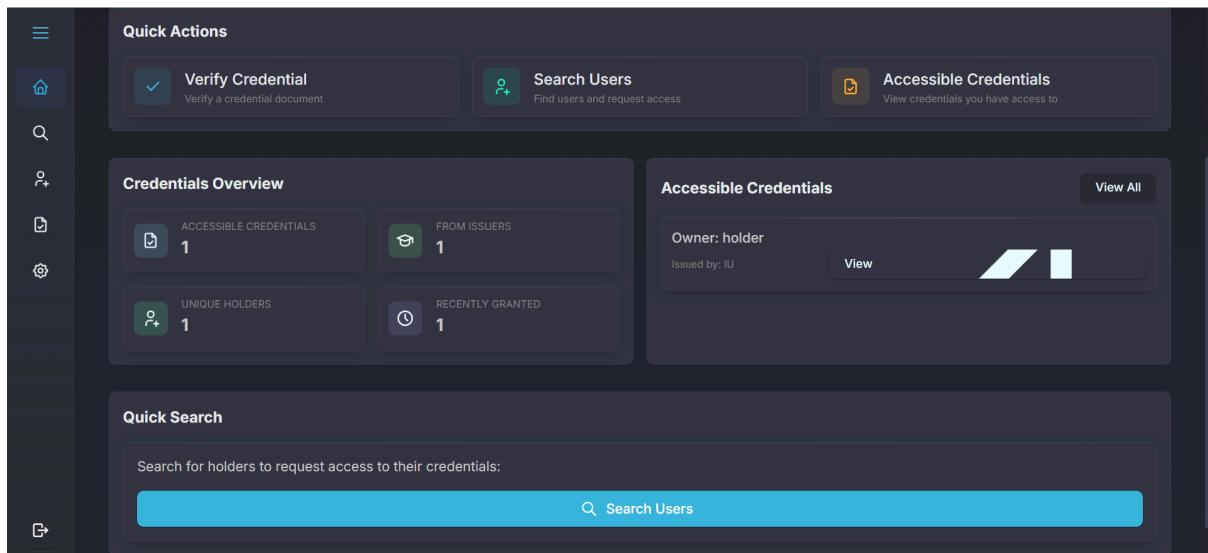
## Access Requests



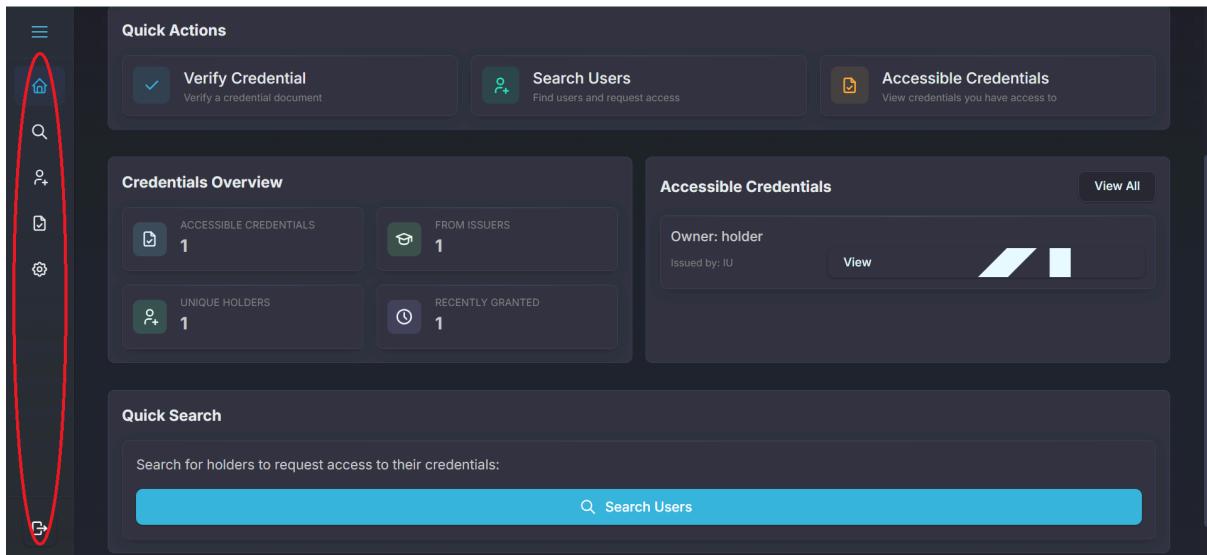
When a Verifier sends an access request for a credential to a Holder, it appears here and the Holder must decide to grant or deny access to the verifier. Also displays the number of granted, denied and pending requests, as well as displaying all the requests

## Verifier User Guide

### Verifier Dashboard Overview



This is the Verifier dashboard that allows Verifier users to navigate the platform. From this page Verifiers can verify a credential is owned by a Holder, search Holder users and request access to their credentials, and view credentials they have been granted access to.



The navbar on the left side of the screen also allows Verifiers to navigate through the platform and stays on the side of the screen wherever the user goes on the website. From top to bottom it includes:

- Home: Brings user back to the Verifier Dashboard
- Verify Credential: Verify that a Holder has a certain credential
- Search Candidates: Search Holder users by email address
- Accessible Credentials: View credentials accessible to the Verifier
- Settings: Manage account information and settings
- Logout: Log out of the user's account

## Issuer Profile Management

The screenshot shows the Issuer Profile Management page. The left sidebar includes icons for Home, Profile, Profile Details, Issued Credentials, and Settings. The main content area features a 'Profile' section with a placeholder image, email (issuer123@test.com), roles (ISSUER, ORGISSUER), and member status (Member since May 1, 2025). Below this are tabs for Overview, Profile Details, and Issued Credentials. The 'Account Overview' section displays metrics: 1 Credentials Issued, 28a52f11... Issuer ID, and May 1, 2025 Last Activity. The 'Account Information' section lists Username (issuer), Email (issuer123@test.com), Role, and Organization.

This page gives an overview of the account, including how many credentials have been issued by the account, the account ID and date of accounts most recent activity. It also includes account information such as account username, email, role and date created.

There is a separate tab, “Profile Details” that gives more information about the account which you can see below. There is also a “Issued Credentials” tab which lists all the issued credentials by the account holder.

The screenshot shows the "Profile Details" page for an account named "issuer". The left sidebar has icons for Home, Issuer, User, Organization, and Settings. The main content area is divided into two sections: "Account Information" and "Security & Settings".

**Account Information:**

- Username: issuer
- Email: issuer123@test.com
- Role: Issuer
- Organization: orgissuer

**Security & Settings:**

- Two-Factor Authentication: Disabled
- Account Created: May 1, 2025
- Last Updated: May 1, 2025

The screenshot shows the "Profile Details" page for the same account "issuer". The left sidebar is identical. The main content area now shows the "Issued Credentials" tab, which is highlighted with an orange underline.

The profile summary includes:

- Issuer Name: Issuer University
- Short Name: IU
- Issuer ID: 28a52f11-746d-4835-ab0a-65ea2908620d

**Issued Credentials:**

Degree in Comsci	ISSUED
Holder: Holder@test.com	
Type: Degree	
Issue Date: May 1, 2025	
Credential ID: 28a52f11-7...	

## Profile Management

The screenshot shows the 'Profile' page for an account. At the top, there's a header with a user icon, the word 'Profile', and a link to 'Edit Profile'. Below the header, the account information is displayed: email (issuer123@test.com), role (ISSUER), and status (Member since May 1, 2025). A navigation bar below the header includes 'Overview', 'Profile Details', and 'Issued Credentials'. The main content area is divided into sections: 'Account Overview' (showing 1 credential issued, Issuer ID 28a52f11..., and Last Activity on May 1, 2025), 'Account Information' (Username: issuer, Email: issuer123@test.com, Role: Organization), and 'Issuer Information' (Issuer Name: Issuer University, Short Name: IU, Issuer ID: 28a52f11-746d-4835-ab0a-65ea2908620d).

This page gives an overview of the account, it gives information like the account ID and date of accounts most recent activity. It also includes account information such as account username, email, role and date created.

There is a separate tab, “Profile Details” that gives more information about the account which you can see below.

The screenshot shows the 'Profile Details' tab. It contains two main sections: 'Account Information' and 'Security & Settings'. The 'Account Information' section lists the account's details: Username (issuer), Email (issuer123@test.com), Role (Issuer), and Organization (orgissuer). The 'Security & Settings' section shows the following details: Two-Factor Authentication (Disabled), Account Created (May 1, 2025), and Last Updated (May 1, 2025).

The next tab is a list of all the credentials associated with the account. This is different for each type of account, for Issuer accounts it lists all the credentials the account has issued, for Holder accounts it lists all the credentials they have been issued, and for Verifier accounts it lists all the credential the account has been granted access to

**issuer**  
issuer123@test.com

**ISSUER** **ORGISSUER**

Member since May 1, 2025

**Overview** **Profile Details** **Issued Credentials**

**Issued Credentials**

**Degree in Comsci**  
Holder: Holder@test.com  
Type: Degree  
Issue Date: May 1, 2025  
Credential ID: 28a52f11-7...

**ISSUED**

**Profile**  
View and manage your profile information

**v**

**verifier**  
verifier@test.com

**VERIFIER** **ORGVERIFIER**

Member since May 2, 2025

**Overview** **Profile Details** **Accessible Credentials**

**Accessible Credentials**

**Degree in Computer Science**  
Holder: holder  
Type: Degree  
Issuer: IU  
Access Granted: May 2, 2025

**ACCESSIBLE** **GRANTED**

**Profile**  
View and manage your profile information

**holder**  
holder@test.com

**HOLDER** **ORGHOLDER**

Member since May 2, 2025

**Overview** **Profile Details** **My Credentials**

**My Credentials**

**Degree in Computer Science**  
Issuer: IU  
Type: Degree  
Issue Date: N/A  
Credential ID: ed6f3205-9...

**ACCEPTED**

## Verify Credential

The screenshot shows a web application interface for verifying credentials. At the top, the browser's address bar displays the URL `localhost:5173/credential/verify`. The main content area has a dark background with a light-colored form overlay. The form is titled "Enter Verification Details". It includes a field labeled "Email Address" with a red asterisk indicating it is required, and a placeholder text "holder@example.com". Below this is a section labeled "Credential Document" with a dashed rectangular area for file upload, accompanied by the text "Drop your PDF here" and "or click to browse". At the bottom of the form is a prominent blue button with the text "Verify Document". On the left side of the page, there is a vertical sidebar with several icons: a three-line menu, a home icon, a search icon, a person icon, a document icon, and a gear icon.

This page allows Verifiers to upload a PDF document and then enter a Holder's email address, if the document uploaded is a credential on the Holder's account it will display a message letting the Verifier know that the credential is verified on the blockchain.

The screenshot shows a web application interface for verifying credentials. The URL in the address bar is `localhost:5173/credential/verify`. The main content area displays a "Degree in Computer Science" credential from "IU". The "Details" tab is selected, showing "Holder Information" (Recipient: holder) and "Credential Information" (Credential: Degree in Computer Science, Type: Degree, Issuance Date: 2025-05-02T10:02:29.762Z). To the right, a green circular icon with a checkmark indicates "BLOCKCHAIN VERIFIED". A large blue box on the right states "Verified & Authentic" with the ISSUER ID: ED6F3205-9816-48AB-888B-0C86E96A32F3. It also notes that the degree has been cryptographically verified and matches the certified record stored on the blockchain.

If the document uploaded by the Verifier does not belong to the Holder a message will display that lets the Verifier know this as well.

The screenshot shows a "Verify Credential" page with a red error message box. The message reads: "Verification Failed" and "No matching credential found". Below it, a smaller note says: "The document could not be verified. Please ensure you have the correct document and that the holder's email is correct." A "Try Again" button is at the bottom of the message box.

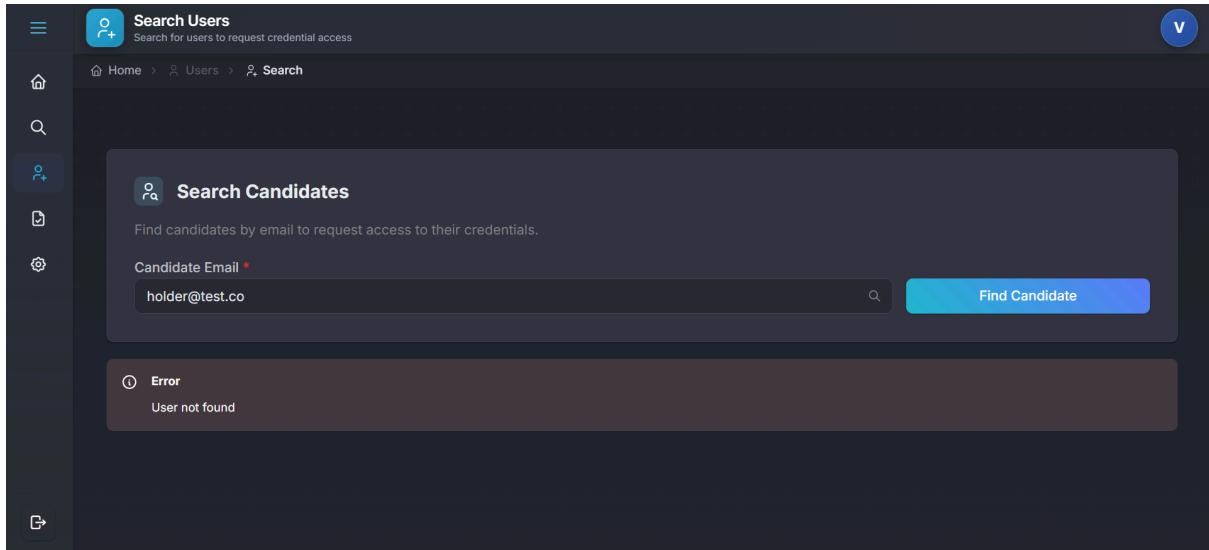
## Search Users

The screenshot shows the 'Search Users' interface. At the top, there's a search bar with placeholder text 'Search for users to request credential access'. Below it is a field labeled 'Candidate Email \*' containing 'holder@test.com'. To the right is a blue button labeled 'Find Candidate'. The main area displays a user profile for 'holder' with the email 'holder@test.com'. Below the profile, there are tabs for 'All Credentials' (selected), 'Pending Requests', and 'Accessible'. A search bar and a sorting dropdown ('Sort by: Issue Date') are also present. A detailed credential card for 'Degree in Computer Science' is shown, indicating 'ACCESS GRANTED', issued by 'Degree' from 'IU' on 'May 2, 2025', and noting the access was granted on the same date.

Here a verifier can search Holder users by their email address and request access to or view their credentials. There is also functionality to search Holder's credentials or sort them in a number of different ways

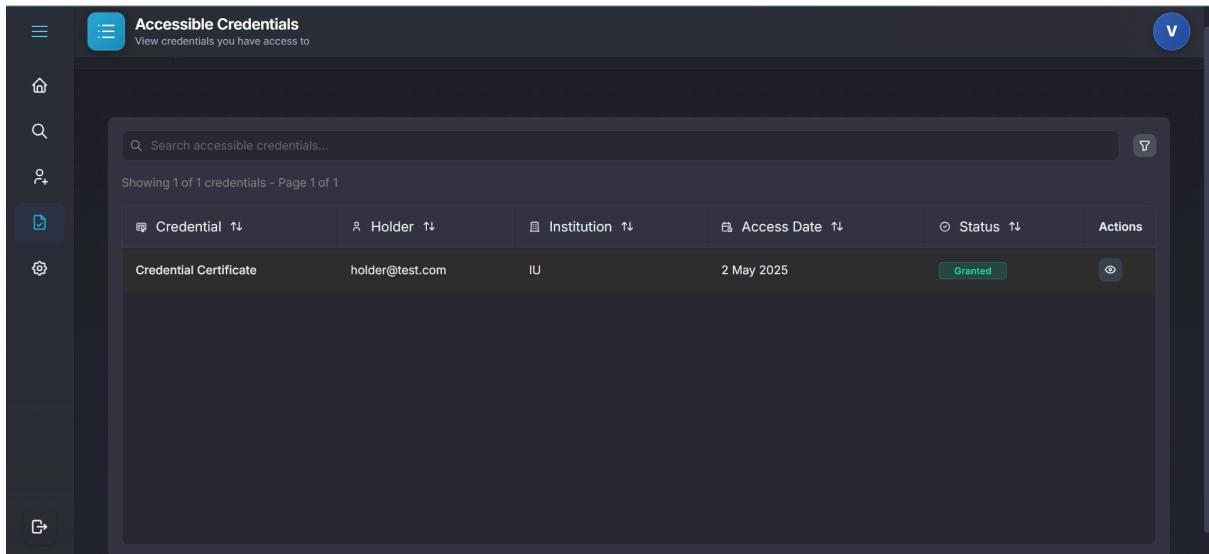
A dropdown menu titled 'Sort credentials by' is open, listing several options: 'Issue Date' (selected), 'Achievement Date', 'Credential Title', and 'Issuer'. Below these are two sorting options: 'Ascending' and 'Descending'. At the bottom of the menu is a 'Sort by: Issue Date' button with a dropdown arrow.

If there is no Holder user associated with the email address imputed into the search bar, a message will appear letting the user know that no such User exists.



The screenshot shows a dark-themed web application interface. At the top left is a sidebar with icons for Home, Search, and other functions. The main header says "Search Users" and "Search for users to request credential access". Below this, the breadcrumb navigation shows "Home > Users > Search". The main content area has a title "Search Candidates" and a sub-instruction "Find candidates by email to request access to their credentials.". A form field labeled "Candidate Email \*" contains the value "holder@test.co". To the right of the input is a magnifying glass icon and a blue button labeled "Find Candidate". Below the form, a red error box displays the message "User not found".

## Accessible Credentials



The screenshot shows a dark-themed web application interface. The main header says "Accessible Credentials" and "View credentials you have access to". Below this, the breadcrumb navigation shows "Home > Accessible Credentials". The main content area has a search bar with placeholder text "Search accessible credentials...". A table below the search bar displays one credential entry. The table columns are: Credential (with an up arrow), Holder (with an up arrow), Institution (with an up arrow), Access Date (with an up arrow), Status (with an up arrow), and Actions. The single row shows: "Credential Certificate", "holder@test.com", "IU", "2 May 2025", "Granted", and an eye icon for actions.

This page allows Verifiers to view all the credentials they have access to. From left to right the page gives the details:

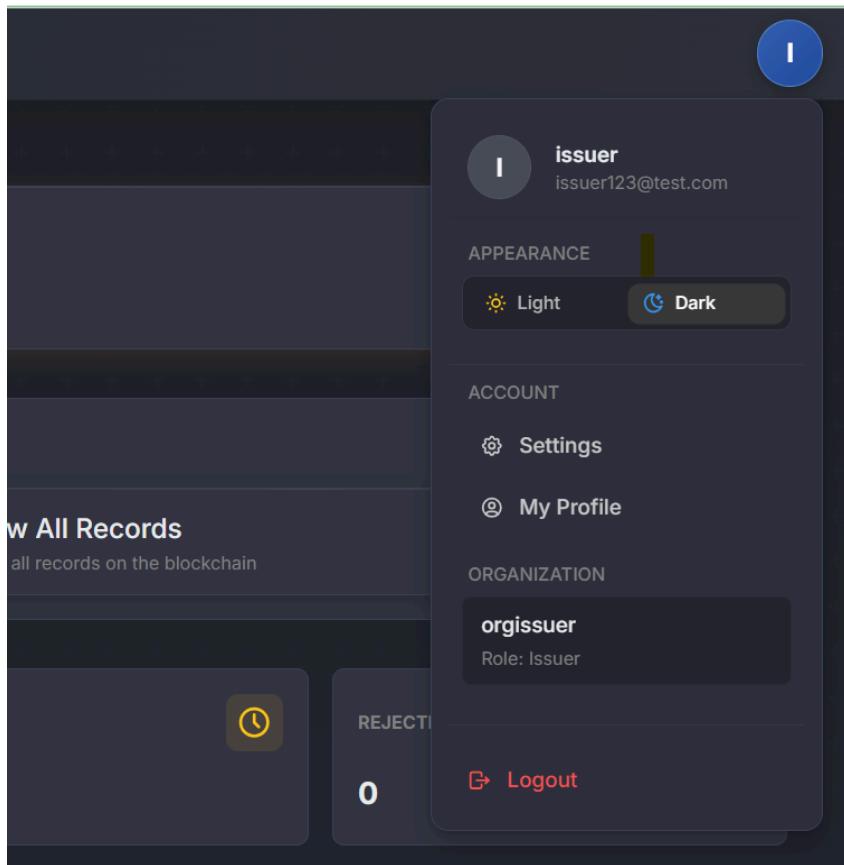
- Credential title
  - Holder of the credential
  - Institution that issued the credential
  - Date the verifier was given access to the credential
  - View credential
- 

## Common Features

### Profile

The screenshot shows a user interface for managing academic credentials. At the top, there's a navigation bar with icons for home, dashboard, and profile (circled in red). The dashboard header reads "Welcome back, issuer! Manage and issue credentials". Below the header is a "Quick Actions" section with two buttons: "Issue New Credential" (Issue a new credential to a holder) and "View All Records" (View all records on the blockchain). A circular progress bar indicates the status of credential issues. The progress bar has four segments: "TOTAL ISSUED" (0), "ACCEPTED" (0), "PENDING" (0), and "REJECTED" (0). At the bottom, there's a "Recent Activity" section with a message: "No recently issued credentials found. Try issuing a credential first." A "Recent Activity" button is also present.

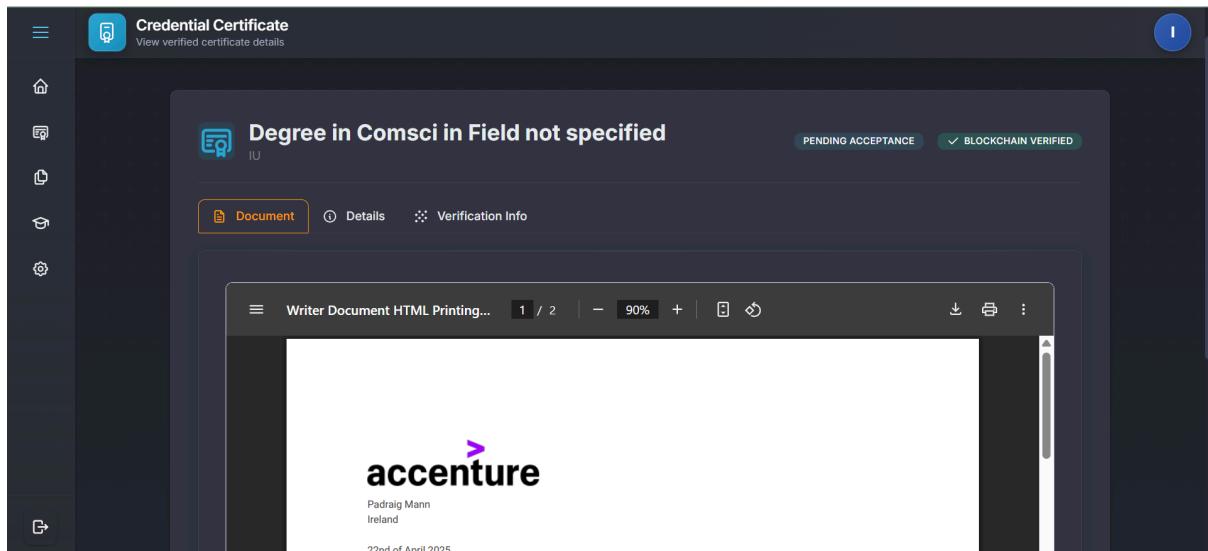
Encircled in the top right corner is the profile button, which will show this menu when you click on it



This menu displays:

- The username, email address and profile picture (default of first letter in username shown here) associated with the account
- Appearance selection of either Light or Dark mode
- Navigation to account settings and profile
- Details regarding which organisation the account belongs to on the blockchain
- Logout button

### **View Credential (Issuer/Verifier)**

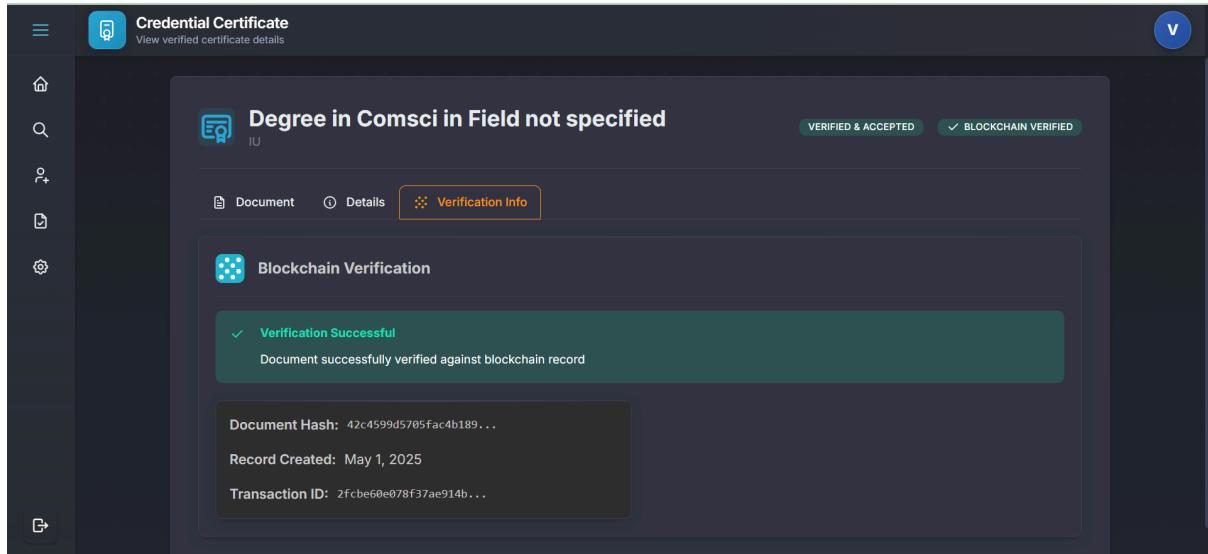


This page allows for the viewing of the credential by users who have been authorised to do so. The first tab displays the document and allows for it to be downloaded and printed.

The screenshot shows the same digital credential interface with a different view. The "Details" tab is selected, revealing four detailed sections: "Credential Information", "Issuing Organization", "Credential Holder", and "Access Information".

- Credential Information:**
  - Title: Degree in Comsci
  - Type: Degree
  - Domain: Not specified
  - Achievement Date: Not specified
  - Program Length: Not specified
- Issuing Organization:**
  - Organization Name: Issuer University
  - Shorthand: IU
  - Organization ID: 28a52f11-746d-4835-ab0a-65ea2908620d
- Credential Holder:**
  - Name: Holder
  - Email: Holder@test.com
- Access Information:**
  - Status: PENDING ACCEPTANCE
  - Access Granted On: Not available
  - Record Created: May 1, 2025

The second tab displays the details regarding the credential, the organisation that issued it, the Holder of the credential and information regarding the access to the credential.

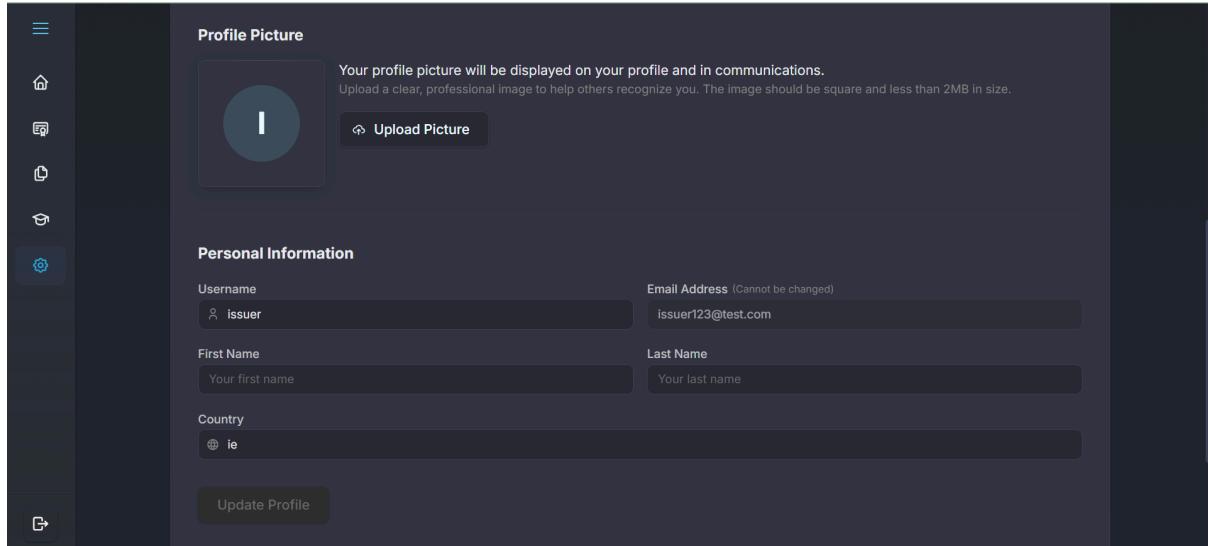


Finally, there is information regarding the verification of the document on the blockchain. This section states:

- The credential is verified against the record of the blockchain
- The Document Hash
- Date the record was created
- ID of the transaction on the blockchain

## Settings

### Profile



This section allows the user to add to and edit their profile. This includes:

- Add a profile picture
- Edit their username
- Add their First and Last Name to their profile
- Change the country associated with account

They are unable to change the email address as that is how the account is identified on the blockchain and is therefore immutable.

## Security

The screenshot shows the 'Security' tab in the issuer app's settings. At the top, there is a user profile section with a placeholder icon, the name 'issuer', and the email 'issuer123@test.com'. Below this are four tabs: Profile, Security (which is selected and highlighted in orange), Appearance, and Organization. The main content area contains two sections: 'Change Password' and 'Two-Factor Authentication'. The 'Change Password' section has three input fields: 'Current Password', 'New Password', and 'Confirm New Password', each with an 'eye' icon for password visibility. Below these is a large 'Change Password' button. The 'Two-Factor Authentication' section contains a descriptive text about its benefits and a 'Setup Two-Factor Authentication' button.

This tab allows the user to change their password and to enable Two-Factor Authentication on their account.

## Appearance

The screenshot shows the 'Appearance' tab in the issuer app's settings. At the top, there is a user profile section with a placeholder icon, the name 'issuer', and the email 'issuer123@test.com'. Below this are four tabs: Profile, Security, Appearance (which is selected and highlighted in orange), and Organization. The main content area contains a 'Theme Preferences' section with the text 'Choose the theme that best suits your working environment.' and two buttons: 'Light Mode' and 'Dark Mode'.

This tab allows the user to change the appearance of their UI.

## Organisation(Issuer)

The screenshot shows the Legitify Issuer dashboard. On the left is a dark sidebar with icons for Home, Profile, Requests, and Settings. The main area has a dark header "Organization Branding". Below it is a logo upload section with a placeholder image and a "Upload Logo" button. Under "Organization Details", there's a "Edit Details" button. The details are listed in two columns:

Organization Name	Shorthand/Acronym
Issuer University	IU
Description	Country
No description provided	Not specified
Address	Website
Not specified	Not specified
Founded	
Not specified	

This section lists the details of the organisation and allows the user to add to and edit details. These include:

- Uploading a company logo
- Edit the Organisation name and Short Name or Acronym
- A short description
- Country the organisation is based in
- The organisation's official address
- The year the organisation was founded

## Glossary

**Access Request:** A formal request sent by a Verifier to a Holder seeking permission to view one or more of the Holder's credentials.

**Administrator:** A user with elevated permissions within an Issuer organization who can approve or reject requests from other users to join the organization.

**Blockchain:** The distributed ledger technology that underpins the Legitify platform, providing immutable records of credentials and their verification status.

**Blockchain Records:** A section in the Issuer dashboard that displays all credentials issued by an organization and recorded on the blockchain.

**Credential:** A digital certificate or document issued by an Issuer to a Holder, which can be verified by Verifiers on the blockchain.

**Credential Hash:** A unique cryptographic identifier generated from a credential document that is stored on the blockchain to verify authenticity.

**Credential Status:** The current state of a credential (Accepted, Rejected, or Pending) indicating how the Holder has responded to the issuance.

**Custom Attribute:** User-defined information fields that can be added to credentials beyond the standard fields.

**Dashboard:** The main interface for users after logging in, providing navigation and overview of platform activities.

**Docker:** A containerization platform required to run the Hyperledger Fabric network and other components of the Legitify system.

**Fabric Binaries:** Core components of Hyperledger Fabric that need to be installed for the blockchain network to function.

**Holder:** A user who receives and manages digital credentials issued by Issuers. Holders can control who has access to view their credentials.

**Holder Identifier:** A unique identification number (like Student ID or Employee ID) that can be included in a credential.

**Hyperledger Fabric:** The enterprise-grade permissioned blockchain framework used by Legitify to record and verify credential transactions.

**Issuer:** An organization or institution that creates and issues digital credentials to Holders. Examples include educational institutions, certification bodies, or employers.

**Issuer Organization:** A group of Issuer users who belong to the same entity and have the authority to issue credentials under that entity's name.

**Legitify:** A blockchain-based credential verification platform that allows for the secure issuance, management, and verification of digital credentials.

**Local Deployment Script:** An automated script (deploy-local.sh) that handles the setup and configuration of all Legitify system components.

**Navbar:** The navigation bar displayed on the side of the screen that allows users to access different features of the platform.

**Pending Credential:** A credential that has been issued to a Holder but has not yet been accepted or rejected.

**PostgreSQL:** A relational database management system required for the Supabase database component of Legitify.

**Supabase:** A backend-as-a-service platform used by Legitify for database management.

**System Administrator:** A technical user responsible for installing and maintaining the Legitify platform infrastructure.

**Transaction ID:** A unique identifier for a blockchain transaction that records the issuance or verification of a credential.

**Two-Factor Authentication (2FA):** An additional security feature that requires users to provide two different forms of identification before accessing their account.

**Verification:** The process of confirming the authenticity of a credential by checking its record on the blockchain.

**Verifier:** An individual or organization that needs to verify the authenticity of credentials. Examples include employers, academic institutions, or regulatory bodies.

**WSL (Windows Subsystem for Linux):** A compatibility layer for running Linux binary executables natively on Windows, required for Windows users to install certain Legitify components.