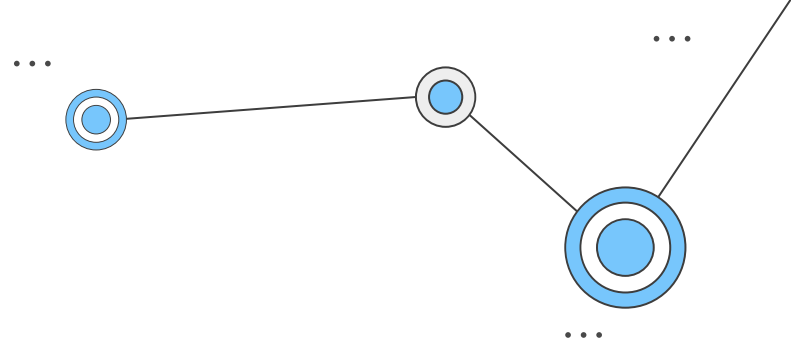




COTRUGLI Diploma Verification System

Blockchain Based Diploma Verification System



Our Solution

01

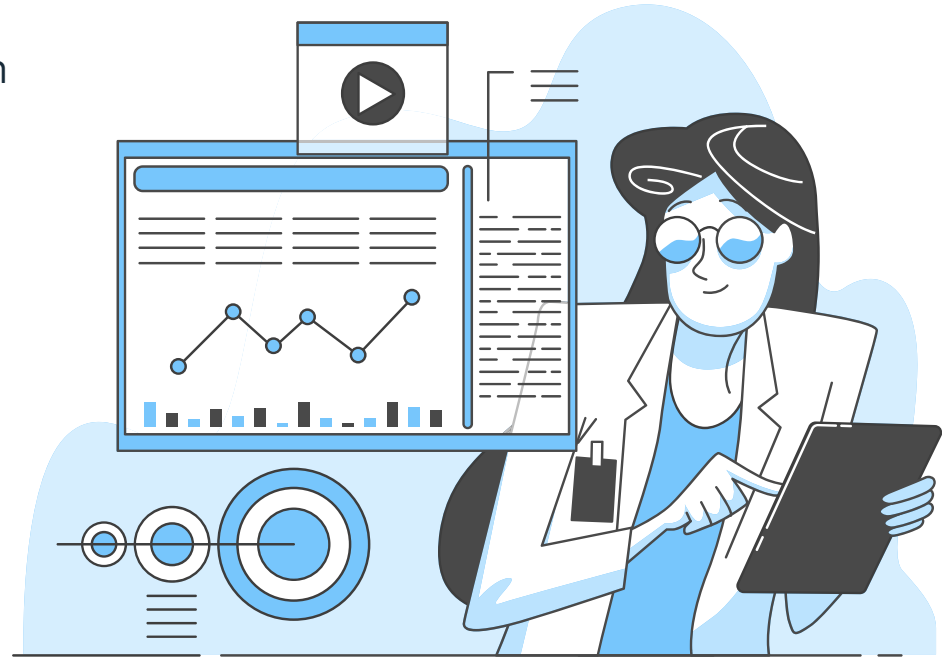
Secure, fast and scalable
blockchain based platform
for diploma verification

02

Using power of blockchain
to provide end-to-end
system security

03

Generating QR codes for
easy checking of digital
certificates





DVS – Business Process

01 Uploading diploma in pdf format

02 Deploying to The Blockchain network

03 Storing Name, Timestamp, Digital Signature, Transaction hash

04 Generating QR code

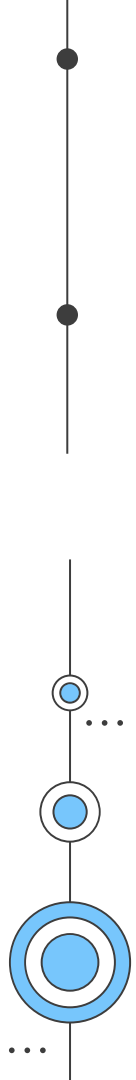
05 Following QR code link, digital diploma is displayed

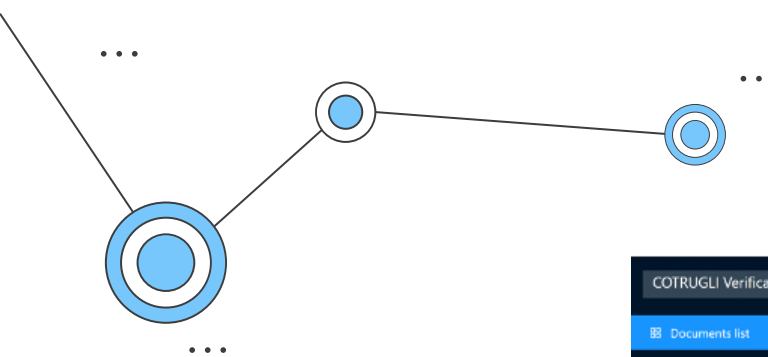
06 Easy integration with existing ecosystem



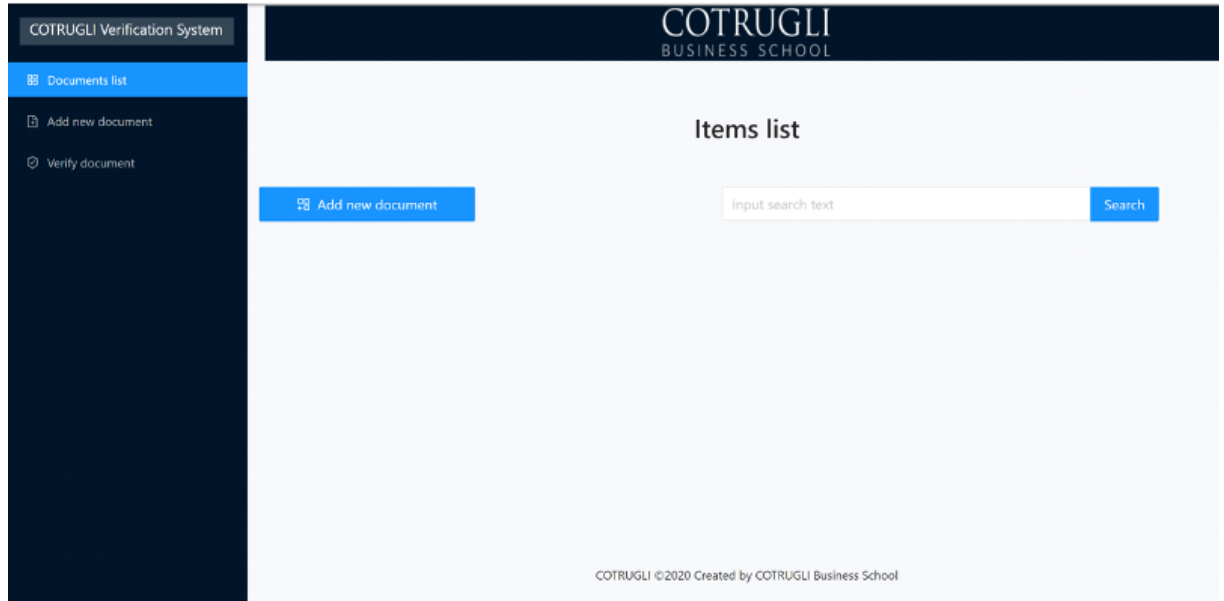
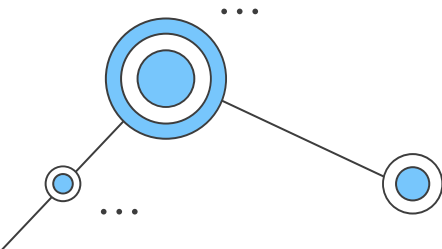
DVS - Steps

In this demonstration we will use Jane Doe, and John Doe as our examples. One of them did finish and got a certificate from COTRUGLI Business school, while the other one has a fake one. We will try to verify in the end which one is really verified by COTRUGLI Business School.



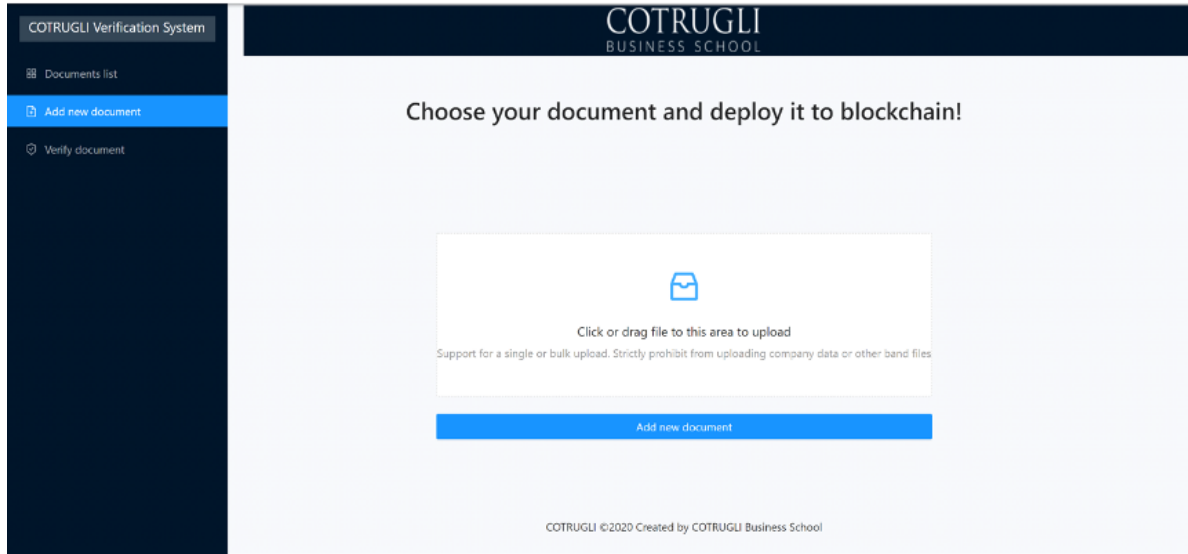


In this first picture
you can see our
Items list which for
now is empty.



The screenshot displays the COTRUGLI Verification System interface. The top navigation bar is dark blue with the text "COTRUGLI Verification System" on the left and "COTRUGLI BUSINESS SCHOOL" on the right. A dark blue sidebar on the left contains the following menu items: "Documents list" (highlighted in light blue), "Add new document" (with a document icon), and "Verify document" (with a checkmark icon). The main content area has a light blue background and is titled "Items list". It features a blue button labeled "Add new document" with a document icon, a search input field with the placeholder text "input search text", and a blue "Search" button. At the bottom right of the page, there is a small copyright notice: "COTRUGLI ©2020 Created by COTRUGLI Business School".

So let's imagine that a student named Jane Doe has finished her course and got a diploma. First, we would like to add diploma to our list. So let's do just that.

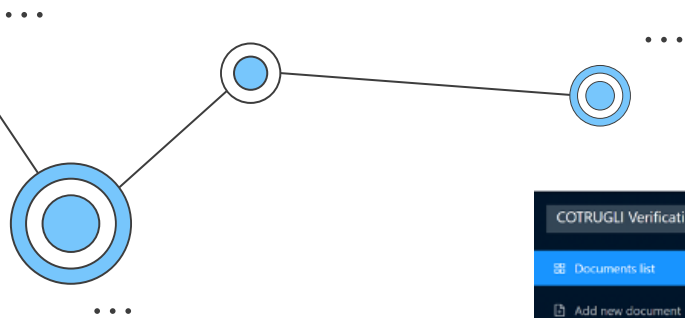


We can either click on the button **"Add new document"**, or in the side bar navigate to the part "Add new document".

We upload our file and review it.

The screenshot displays the COTRUGLI Verification System interface. On the left is a dark blue sidebar with the following menu items: 'COTRUGLI Verification System', 'Documents list', 'Add new document' (highlighted in light blue), and 'Verify document'. The main content area features a dark blue header with the 'COTRUGLI BUSINESS SCHOOL' logo. Below the header, a white document viewer displays a PDF titled 'Jane Doe.pdf'. The document is a diploma from Cotrugli Business School, certifying 'Jane Doe' for a 'Master of Business Administration' degree, awarded on April 21, 2021. The diploma includes the school's seal, a signature, and the AVISA logo. At the bottom of the viewer are two buttons: a red 'Reject' button and a blue 'Confirm' button.

And we add it to our list by pressing **“Confirm”** button



After our confirmation we can click on the button **"Add to blockchain"** which will deploy this document's digital signature to our smart contract.

COTRUGLI Verification System

Documents list

Add new document

Verify document

Add new document

Jane Doe.pdf
Added : 2021-04-29T1

File size	File Type
658505KB	applicat

Document Digital Si
9a245e20c3225b9dc

Add to blockchain

COTRUGLI BUSINESS SCHOOL

Jane Doe.pdf

Cotrugli Business School

This Diploma witnesses that

Jane Doe

has fulfilled the prescribed requirements and is recommended by the Program Board of the
COTRUGLI BUSINESS SCHOOL
for the degree of

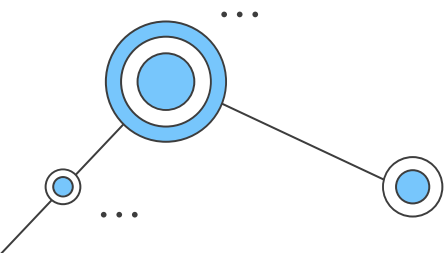
Master of Business Administration

which is conferred with all the rights and privileges pertaining thereto.
Given under the seal of Cotrugli Business School
April 21, 2021

COTRUGLI BUSINESS SCHOOL

AMBA

COTRUGLI ©2020 Created by COTRUGLI Business School



As we can see after successful deployment, our button has changed to **"Registered"** and we get a **Success notification** of the Transaction hash by which we can locate our certificate and transaction on the blockchain.

The screenshot displays the COTRUGLI Verification System interface. On the left, a dark sidebar contains a menu with 'Documents list' (highlighted in blue), 'Add new document', and 'Verify document'. The main content area features a header with 'COTRUGLI BUSINESS SCHOOL' and a navigation bar with 'Add new document'. Below this, a document entry for 'Jane Doe.pdf' is shown, including its file size (658505KB), file type (application/pdf), and a document digital signature (9a245e20c3225b9dc7d3efcbf6359cf235d60e89). A green 'Registered' button is visible at the bottom of the document entry. A search bar with the placeholder 'input search text' and a 'Search' button is located to the right. A success notification popup is displayed in the top right corner, containing a green checkmark icon and the text: 'Success! You have deployed Jane Doe.pdf certificate to the blockchain! TransactionHash : 34469603979511ef121ece9c1ac7dcd345470701b6b30b3ab0d8a38a0dc0dda0'. A blue arrow points from the text 'Success notification' in the introductory paragraph to the notification popup. Another blue arrow points from the text 'Registered' in the introductory paragraph to the green 'Registered' button in the document entry.

COTRUGLI Verification System

COTRUGLI BUSINESS SCHOOL

Documents list

Add new document

Verify document

Add new document

Items list

input search text Search

Jane Doe.pdf
Added : 2021-04-29T10:04:15.652Z by Admin

File size 658505KB File Type application/pdf

Document Digital Signature
9a245e20c3225b9dc7d3efcbf6359cf235d60e89

Registered View

Success!
You have deployed Jane Doe.pdf certificate to the blockchain! TransactionHash :
34469603979511ef121ece9c1ac7dcd34547070
1b6b30b3ab0d8a38a0dc0dda0

COTRUGLI ©2020 Created by COTRUGLI Business School

And the final step of this part is to go to **"Verify document"** part and upload our original and fake diploma to confirm their validity.

First, we upload Jane Doe and we get a **Success notification**.

The screenshot displays the COTRUGLI Verification System interface. On the left is a dark blue sidebar with the following menu items: "Documents list", "Add new document", and "Verify document" (which is highlighted in a lighter blue). The main content area has a header with "COTRUGLI BUSINESS SCHOOL" and a sub-header "Jane Doe.pdf". Below this is a preview of a diploma from Cotrugli Business School. The diploma text reads: "This Diploma addresses that Jane Doe has fulfilled the personal and program requirements and is recommended by the Program Board of the COTRUGLI BUSINESS SCHOOL for the Degree of Master of Business Administration which is conferred with all the rights and privileges pertaining thereto. Given under the seal of Cotrugli Business School April 21, 2021". The diploma includes the school's seal, a signature, and the AMBA logo. A white notification box in the top right corner contains a green checkmark and the text: "Success! File : Jane Doe.pdf is validated by COTRUGLI Business school!". A blue arrow points from the text "Success notification" in the preceding paragraph to this notification box.

And then we upload John Doe, which is not in our base and we get **Error Notification**

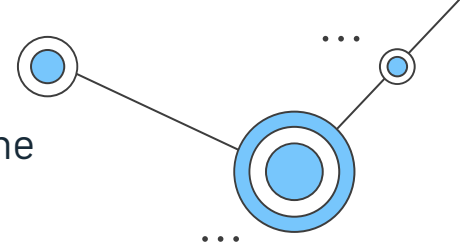
The screenshot displays the Cotrugli Verification System interface. On the left, a dark blue sidebar contains the following menu items: "COTRUGLI Verification System", "Documents list", "Add new document", and "Verify document" (which is highlighted in light blue). The main content area features a header with the "COTRUGLI BUSINESS SCHOOL" logo. Below the header, a document titled "John Doe.pdf" is being viewed. The document is a diploma from Cotrugli Business School, dated April 21, 2021, awarded to John Doe for a Master of Business Administration. The diploma includes the school's seal, a signature, and the AMBA logo. An error notification box is overlaid on the top right of the document viewer, containing a red 'x' icon and the text: "Error! File John Doe.pdf is invalid!". A red arrow from the text above points to this notification box.



Next, while our deployment is done, we generate QR Code which we thereafter place on our physical version of diploma. We can scan QR code and find more details about our diploma. Go ahead, try and scan this QR code :)

...

This is the page which will open after scanning this QR code, it will show the digital version of the diploma and most important data about our diploma verification such as **Name, Timestamp, Digital Signature, Transaction hash**, and it could be more modified to hold more or less information...



cbaas

Cotrugli Business School



This Diploma attests that

Jane Doe


Has fulfilled the areas/requirements and to whom hereby, the Program Board of the
COTRUGLI BUSINESS SCHOOL,
for the Degree of

Master of Business Administration

which is conferred with all the rights and privileges pertaining thereto.
Given under the seal of Cotrugli Business School
April 21, 2021



**COTRUGLI
BUSINESS SCHOOL**




Name:
Jane Doe

Time Stamp:
161969606451 (2021-04-21 14:21:46)

Digital Signature:
8a245e20c3225b9dc7d3efc0f6359cf235d60e89

Transaction Hash:
[34469603979511ef1211ee0bc1ac70cd345470701b6b30b3bb0d8a38a06c0d09d](#)

© 2021 COTRUGLI Blockchain as a services. All Rights Reserved.

A stylized blockchain network diagram with blue circular nodes connected by lines. The nodes vary in size, with one significantly larger than the others. Ellipses (...) are used to indicate the continuation of the network in various directions.

Verification system on blockchain
can be of great benefit to anyone
using it either in personal or
professional environment.

If you have any concerns or questions
regarding this demonstration
document feel free to contact us.

www.cotrugli.tech

info@cotrugli.tech