

Image No.1

By pressing the “Access the system” button we will enter an interface where we can access the application through an authentication process, in case we are not registered, we can enter as applicants in the “Register Here” section to enter your data and register in the system.

Image No. 2

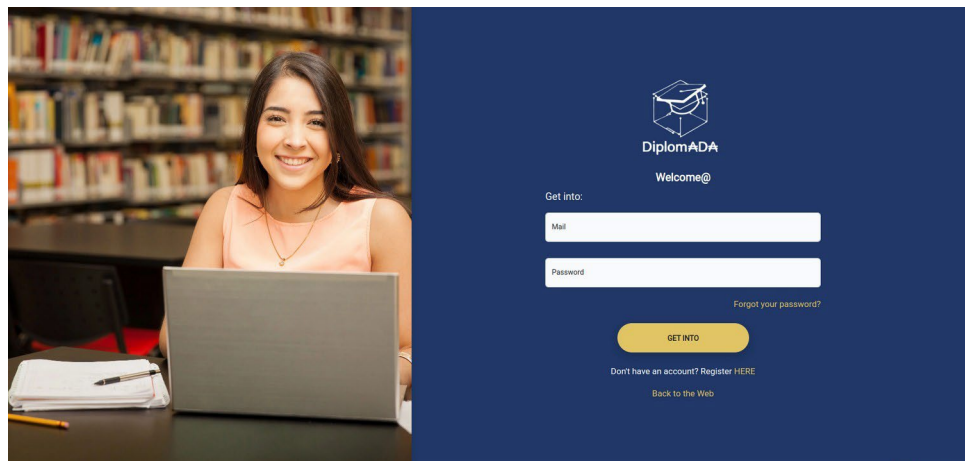
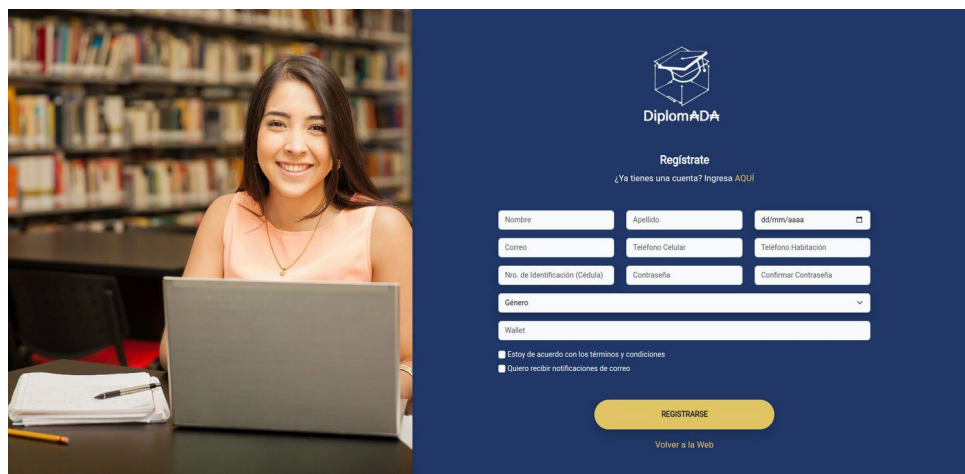


Image No. 3



Control System Study DiplomADA



When we register in the system, we enter with the applicant profile, to choose to enroll in one of the courses or diploma courses offered by the foundation in its academic training plans.

Once authenticated in the system, the first process to perform is to complete the registration and proceed to create the NFTs of the degree and the certified grades (a process that is mandatory to enroll in a diploma course). This process can be seen in the “Upload Documents” option.

Image No. 4

Balance Disponible: 9.138442471457723e+29 A Orestes Gutierrez

Cargar Documentos

Cargar Documentos

Titulo Universitario: Arrastra y suelta tu archivo aqui

Notas Certificadas: Arrastra y suelta tu archivo aqui

Guardar

Solo se permiten archivos con un máximo de 2MB en formato pdf.

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At this point, applicants upload the documents corresponding to their degrees and certified grades.

Image No. 5

Cargar Documentos

Cargar Documentos

Titulo Universitario:

Notas Certificadas:

Guardar

Solo se permiten archivos con un máximo de 2MB en formato pdf.

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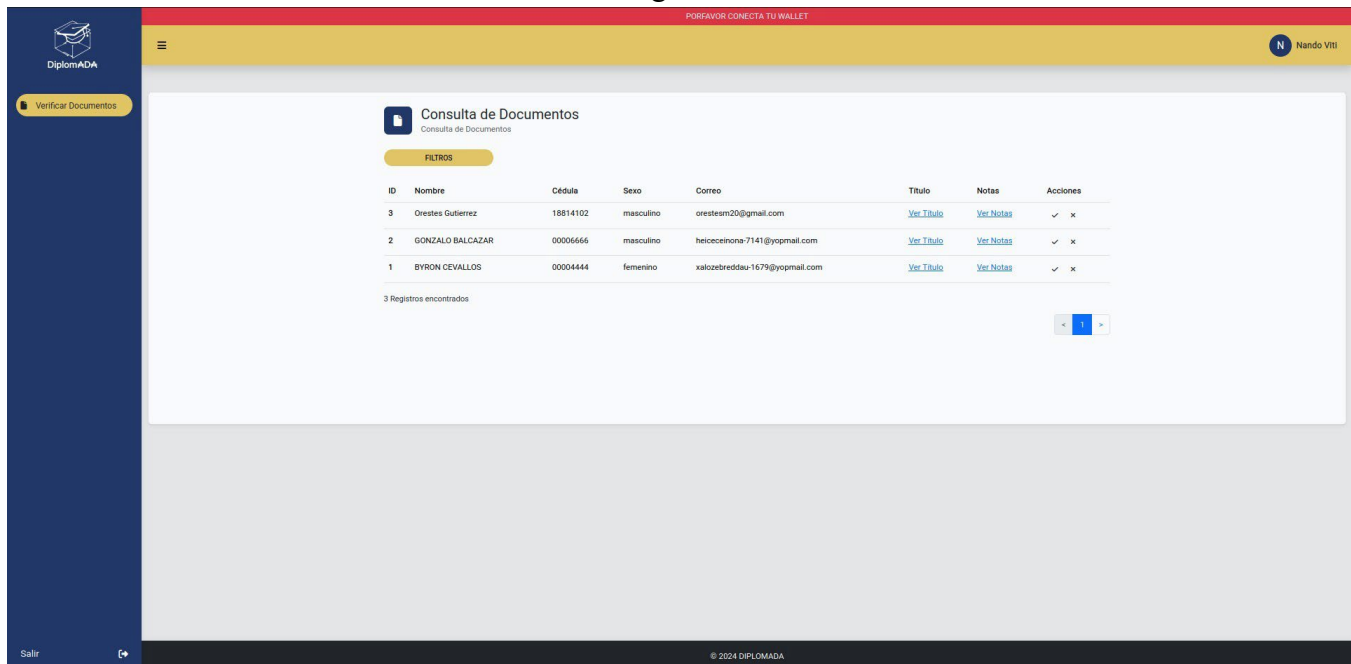
Control System Study DiplomADA



At this point the files are uploaded to the system for verification, this process is performed by an analyst within the system, the verification is a mandatory process to determine the authenticity of the files before creating the NFTs and making the registration in the blockchain.

At the time of uploading the files, the analyst must log into the system so that he/she can perform the analysis and approve or reject the documents.

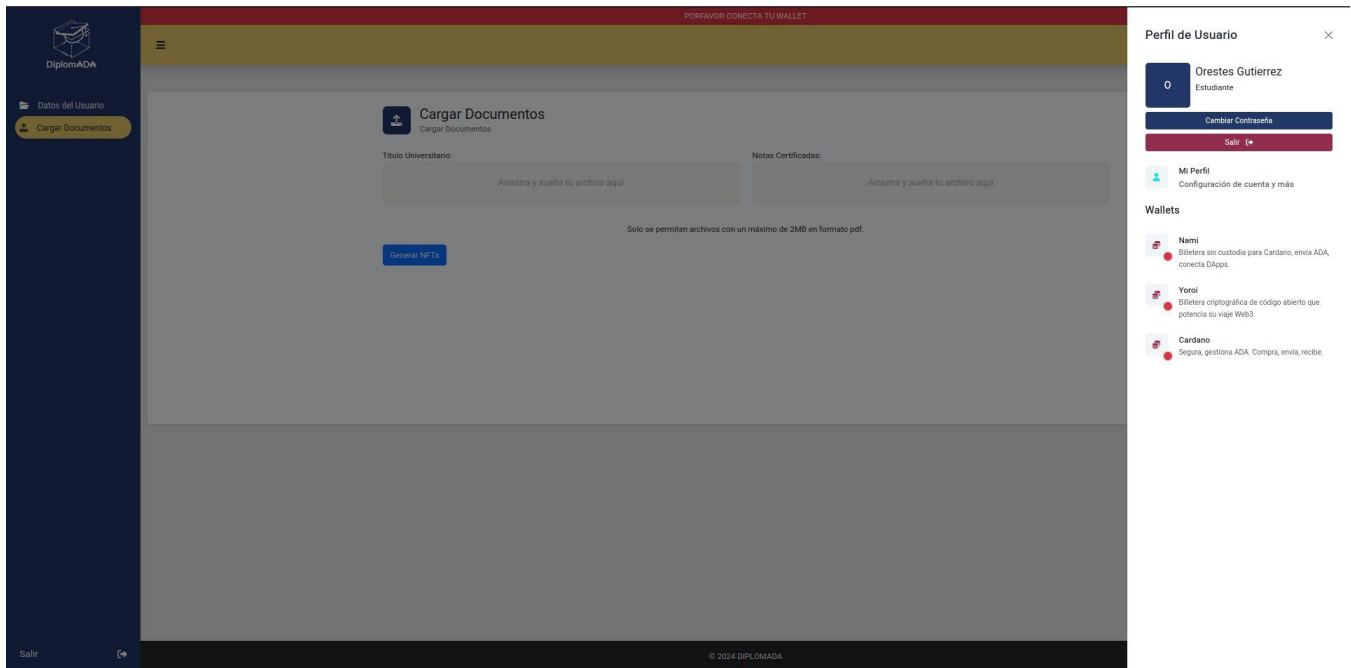
Image No. 6



At this point the analyst verifies the documents by clicking on the links shown in the list. Subsequently, the analyst indicates if the documents are legitimate by clicking on the check button, otherwise, they click on the “X” to reject the documents.

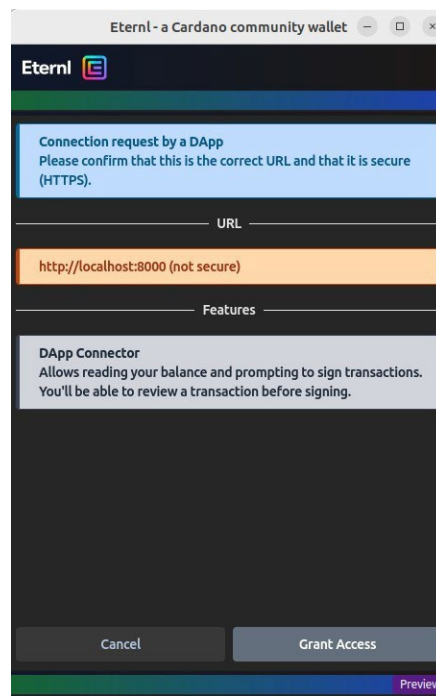
Once the documents have been verified and approved, the student can enter the system to create the NFTs of the degrees and grades, for this purpose he/she must connect the wallet with the application.

Image No. 7



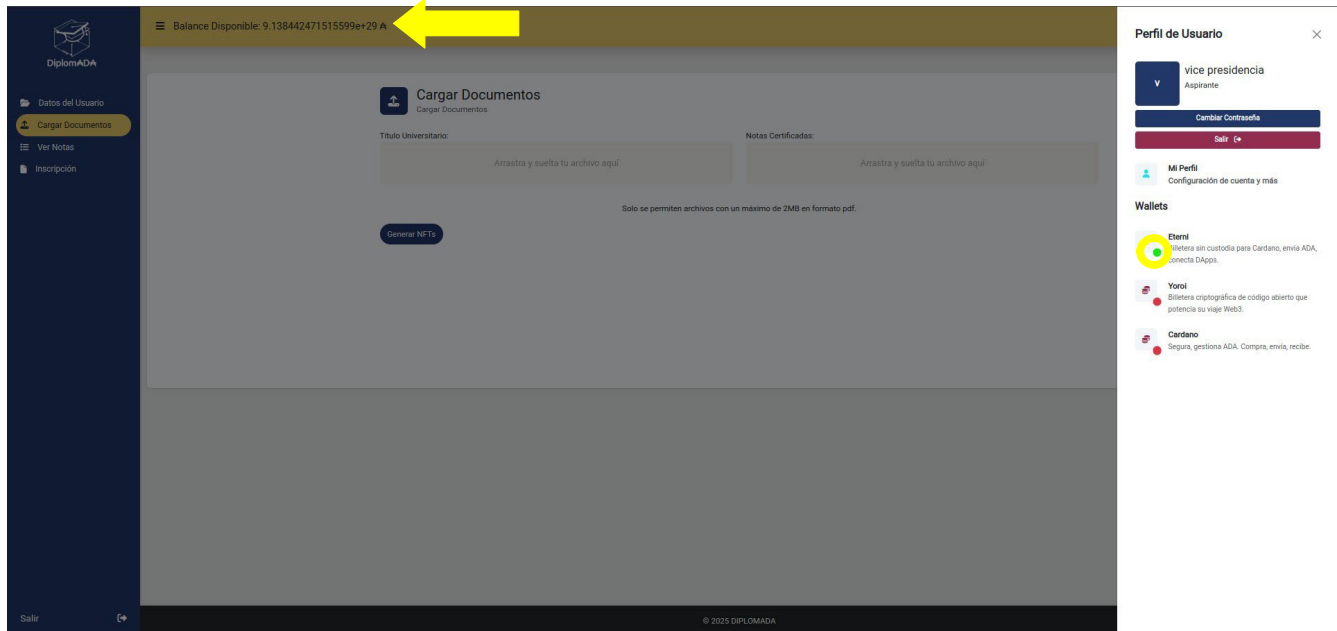
To do so, we deploy the menu on the right side of the screen and click on the “Eternl” option, this will link the web application with the wallet to be able to make transactions.

Image No. 8



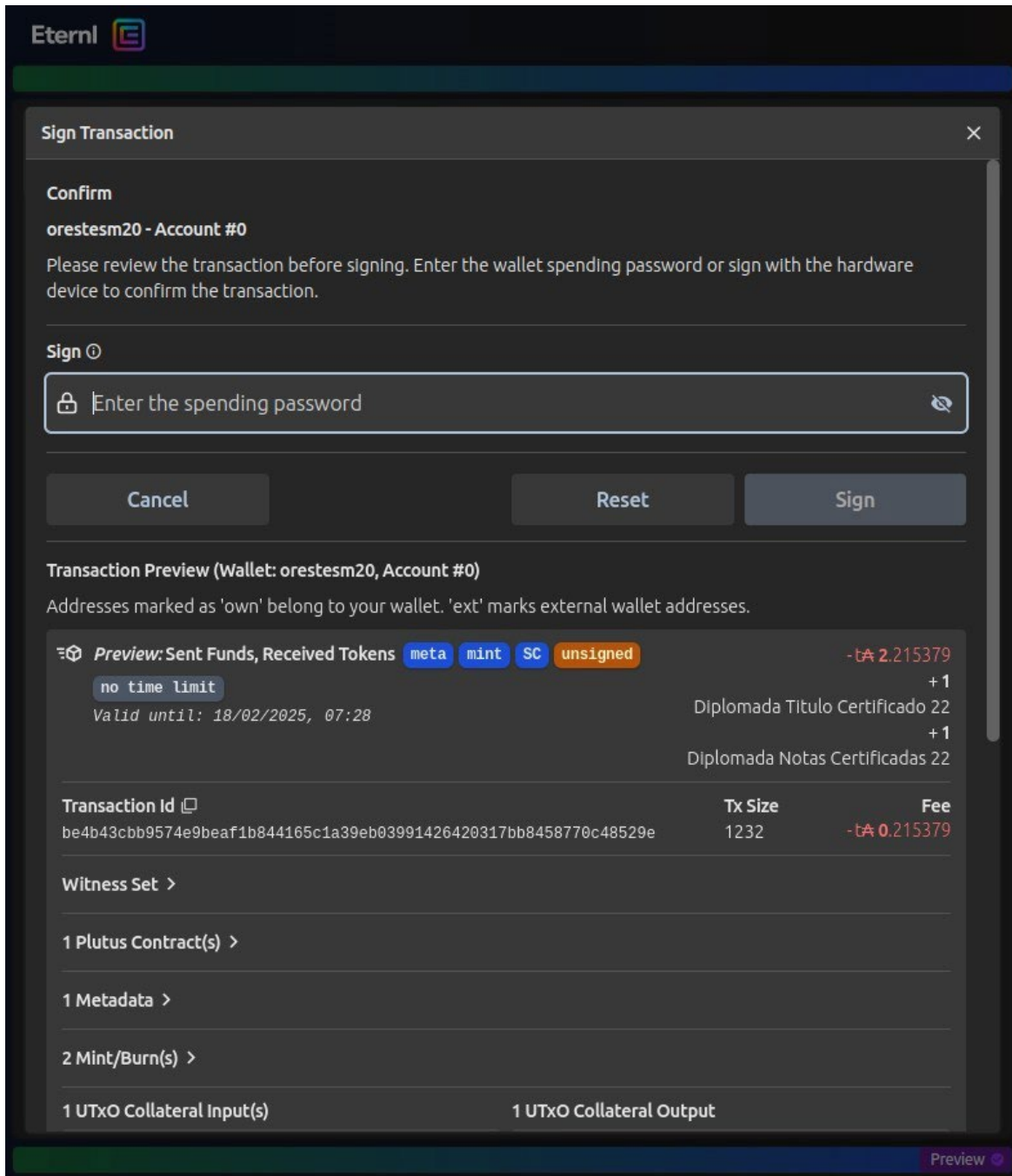
In this image we can see the request by the web application to connect to the wallet, this request must be accepted by the user who has previously authenticated with his username and password in the wallet through the browser plugin.

Image No. 9



By pressing this button, the application connects to the lucid API to make a request, in this case requesting the signature of a transaction, we can see this when the plugin displays the transaction request.

Image No. 10



Eternl

Sign Transaction

Confirm
orestesm20 - Account #0
Please review the transaction before signing. Enter the wallet spending password or sign with the hardware device to confirm the transaction.

Sign

Enter the spending password

Cancel **Reset** **Sign**

Transaction Preview (Wallet: orestesm20, Account #0)
Addresses marked as 'own' belong to your wallet. 'ext' marks external wallet addresses.

Preview: Sent Funds, Received Tokens meta mint SC unsigned -tA 2.215379
no time limit +1
Valid until: 18/02/2025, 07:28 Diplomada Titulo Certificado 22
+1
Diplomada Notas Certificadas 22

Transaction Id	Tx Size	Fee
be4b43cbb9574e9beaf1b844165c1a39eb03991426420317bb8458770c48529e	1232	-tA 0.215379

Witness Set

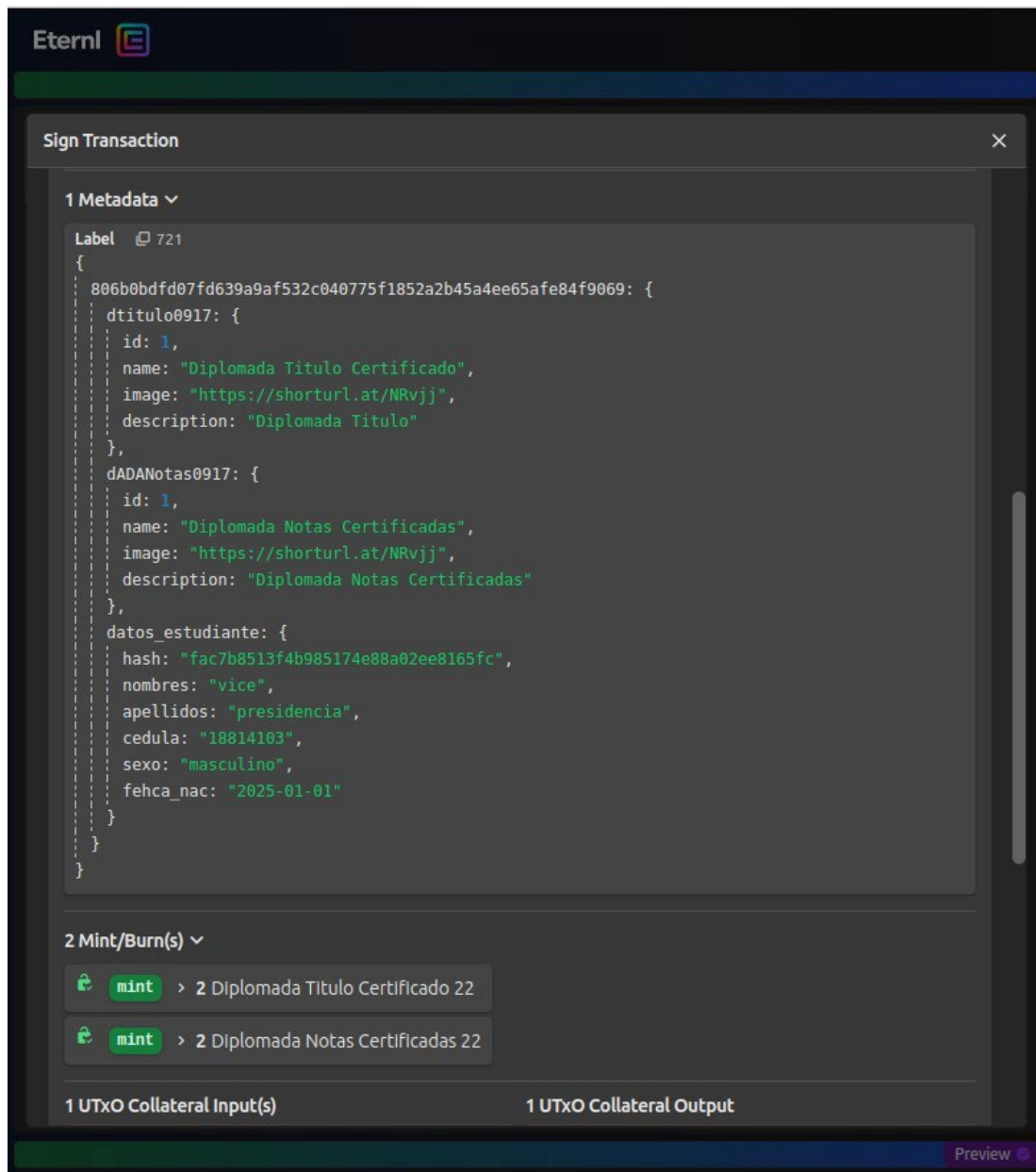
- 1 Plutus Contract(s)
- 1 Metadata
- 2 Mint/Burn(s)
- 1 UTXO Collateral Input(s)
- 1 UTXO Collateral Output

Preview

At this point, the wallet requests the signature of the transaction, this is done by entering the password of the wallet user, to confirm that the transaction is legitimate and that it is being requested by the original owner of the wallet.

When confirming, we can see the process trace indicated by the plugins that shows us the transaction, we can see the NFTs created and the transaction performed with its respective hash.

Image No. 11



We can verify the transaction made by means of the block explorer that we will access by clicking on the link “Transation ID”, we leave the transaction id for verification:
<https://preview.cardanoscan.io/transaction/886661df5d0000be69db091e45a71c32b784fd11df623c7566cc9f6b14add923>

Thanks to the block explorer we can verify the transaction made, this information is obtained by entering the metadata section, there we will have the available information of the NFTs created.

Image No. 12

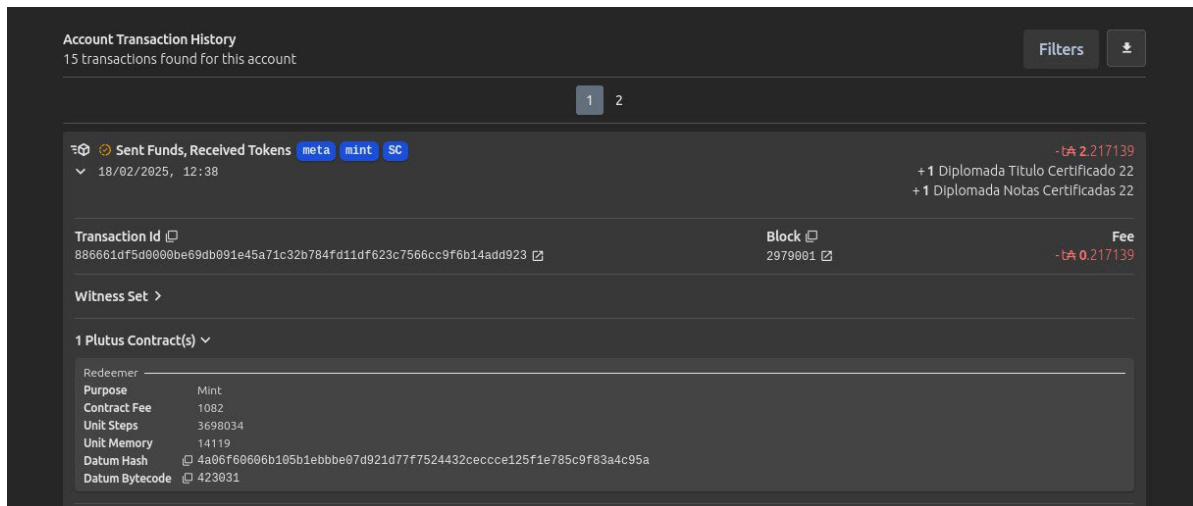


Image No. 13

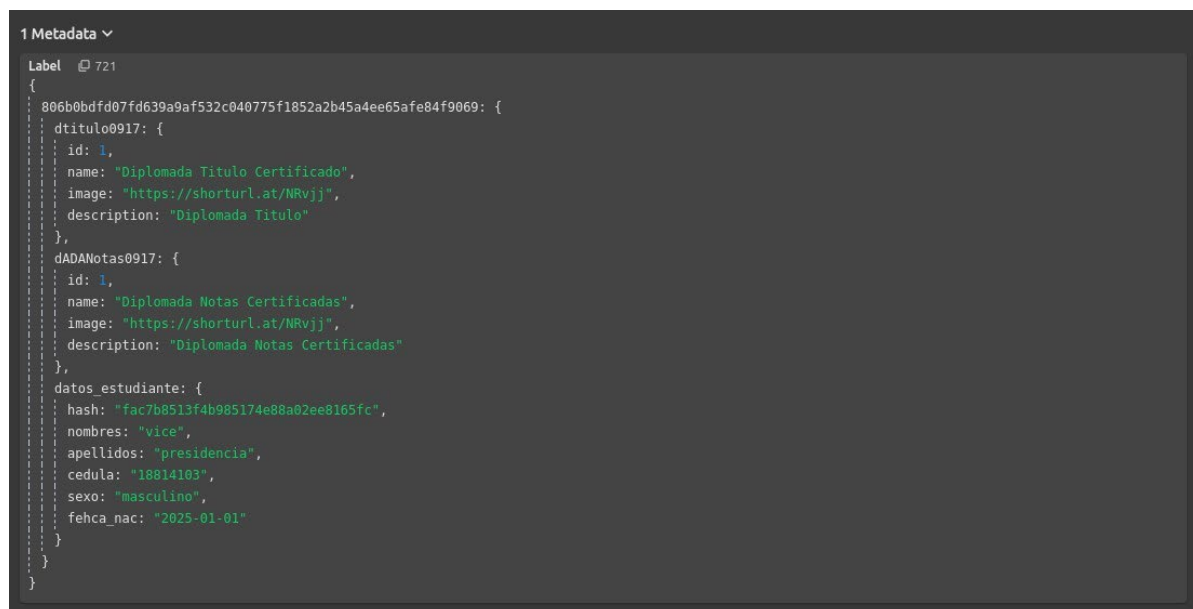


Image No. 14

2 Mint/Burn(s) ▾

mint ▾ 2 Diplomada Titulo Certificado 22

asset15amh4u6skarhxrmmctr3zf6t4kp267xlczc69

mint ▾ 2 Diplomada Notas Certificadas 22

asset1nrdmah0tmkekkyud8306tz6jwwhrxj9k6qlqm

1 UTxO Collateral Input(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcfqfuwvashtstne Account #0 tA 9,987.359127

1 UTxO Input(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcfqfuwvashtstne Account #0 tA 9,987.359127

1 UTxO Collateral Output

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcfqfuwvashtstne Account #0 tA 9,982.359127

3 UTxO Output(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcfqfuwvashtstne Account #0 tA 2

> 1 Diplomada Notas Certificadas 22

> 1 Diplomada Titulo Certificado 22

addr_test1wqh599ky7vm6jqf6g8x0dujden49zydd67wuzmjnr3hswcvf23zm Script tA 2

> 1 Diplomada Notas Certificadas 22

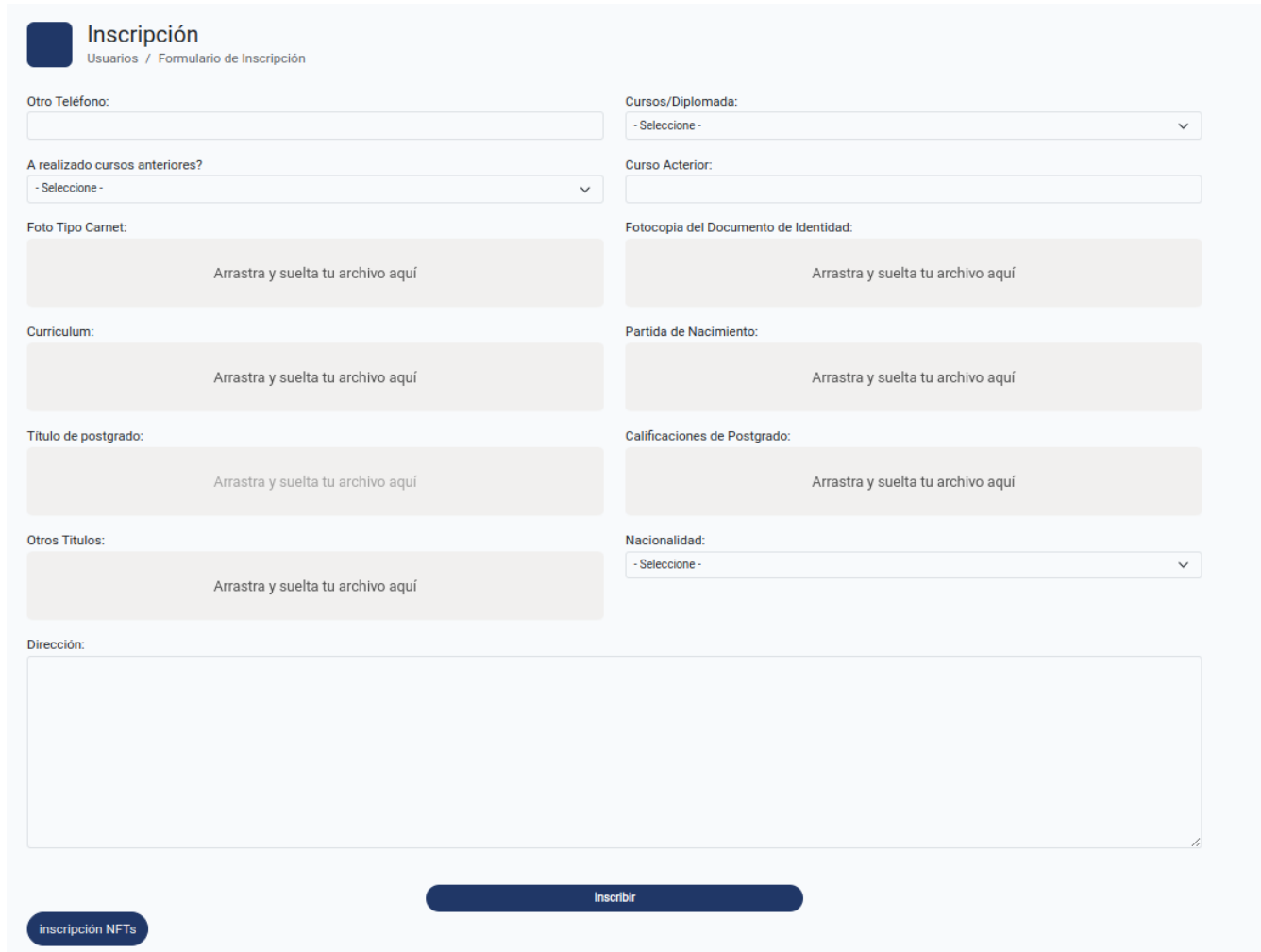
> 1 Diplomada Titulo Certificado 22

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcfqfuwvashtstne Account #0 tA 9,983.141988

Add transaction note

To continue with the process, at this point the applicant can complete the registration process by entering the “Registration” function.

Image N°15



Inscripción
Usuarios / Formulario de Inscripción

Otro Teléfono:

Cursos/Diplomada:

A realizado cursos anteriores?

Curso Aterior:

Foto Tipo Carnet:

Fotocopia del Documento de Identidad:

Curriculum:

Partida de Nacimiento:

Título de postgrado:

Calificaciones de Postgrado:

Otros Títulos:

Nacionalidad:

Dirección:

Inscribir

inscripción NFTs

This is the form that allows the applicant to enroll in the study control system, to formalize their enrollment they must fill in each of these fields and then register their enrollment on the blockchain.

After registering the enrollment, the process is performed in a second step, the “NFT Enrollment” button performs the transaction request to register the enrollment on the blockchain.

Image N°16

Sign Transaction

Confirm

orestesm20 - Account #0

Please review the transaction before signing. Enter the wallet spending password or sign with the hardware device to confirm the transaction.

Sign ⓘ

🔒 Enter the spending password

👁

Cancel

Reset

Sign

Transaction Preview (Wallet: orestesm20, Account #0)

Addresses marked as 'own' belong to your wallet. 'ext' marks external wallet addresses.

🔗 Preview: Sent Funds, Received Tokens

meta

mint

SC

unsigned

- tA 2.208999

+ 1 Diplomada Inscripcion 1

no time limit

Valid until: 18/02/2025, 16:06

Transaction Id 📄	Tx Size	Fee
b637e29fd60a3d9506a0b2bcd3ba3d8dde6c3f152f4d8dc914297636db2a4ff9	1087	- tA 0.208999

In the block explorer we will be able to verify the metadata of the transaction made for the registration process.

meta

mint

SC

18/02/2025, 13:10

+ 1 Diplomada Inscripcion 1

Transaction Id

Block

Fee

b637e29fd60a3d9506a0b2bcd3ba3d8dde6c3f152f4d8dc914297636db2a4ff9

2979071

-tA 0.208999

Witness Set

1 Plutus Contract(s)

Redeemer

Purpose

Contract Fee

Unit Steps

Unit Memory

Datum Hash

Datum Bytecode

Mint

1082

3698034

14119

4a06f60606b105b1ebbbe07d921d77f7524432ceccce125f1e785c9f83a4c95a

423931

1 Metadata

Label

721

```
{
  aa491481c7dd513475184582cf6187d08f89478445045a58f4334855: {
    datos_estudiante: {
      hash: "fac7b0513f4b985174e88a02ee0165fc",
      nombres: "vice",
      apellidos: "presidencia",
      cedula: "18814103",
      curso: "Diplomada en Desarrollo de Aplicacopmes en Cardano"
    }
  }
}
```

1 Mint/Burn(s) ▾

mint ▾

2 Diploma Incripcion 1

asset1ntzm82gzwydrvc105y8u02kgcev3n8pm5rdh8

1 UTxO Collateral Input(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcqfuwvashtsne

Account #0

tA 9,983.141988

1 UTxO Input(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcqfuwvashtsne

Account #0

tA 9,983.141988

1 UTxO Collateral Output

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcqfuwvashtsne

Account #0

tA 9,978.141988

3 UTxO Output(s)

addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcqfuwvashtsne

Account #0

tA 2

> 1 Diploma Incripcion 1

addr_test1wqh599ky7vm6jqf6g8x0dujden49zydd67wuzmjnr3hswcvf23zm

Script

tA 2

> 1 Diploma Incripcion 1

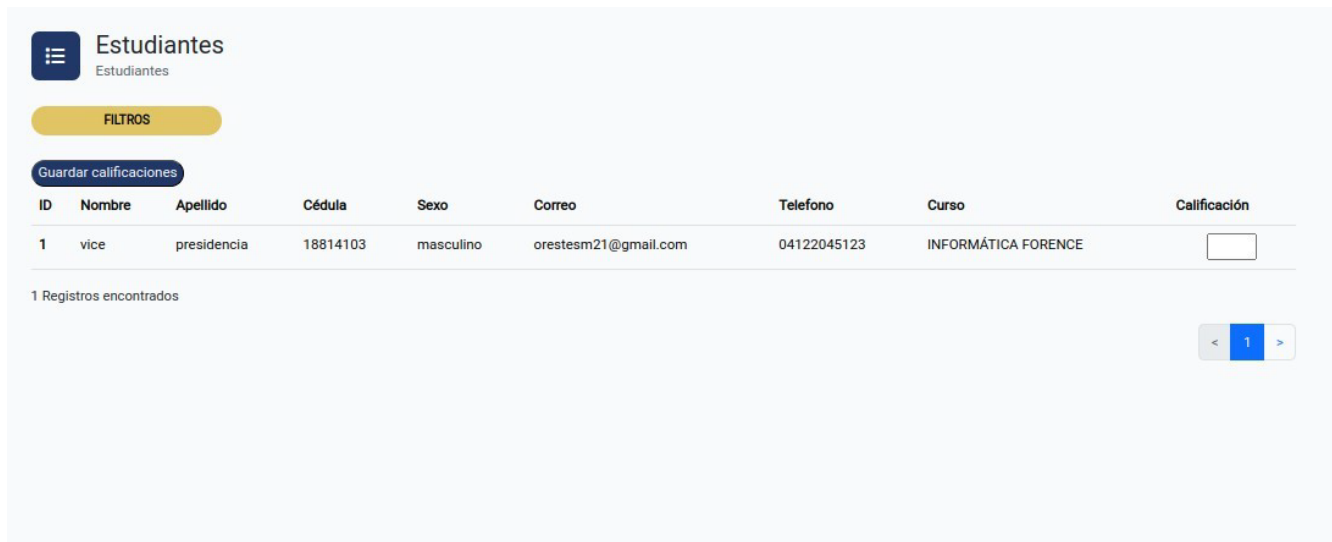
addr_test1qpnxfn4cplm6ervjgl0z...6ewkxextsgqx7fadcqfuwvashtsne

Account #0

tA 9,978.932989

Add transaction note

Image N°19



Estudiantes
Estudiantes

FILTROS

Guardar calificaciones

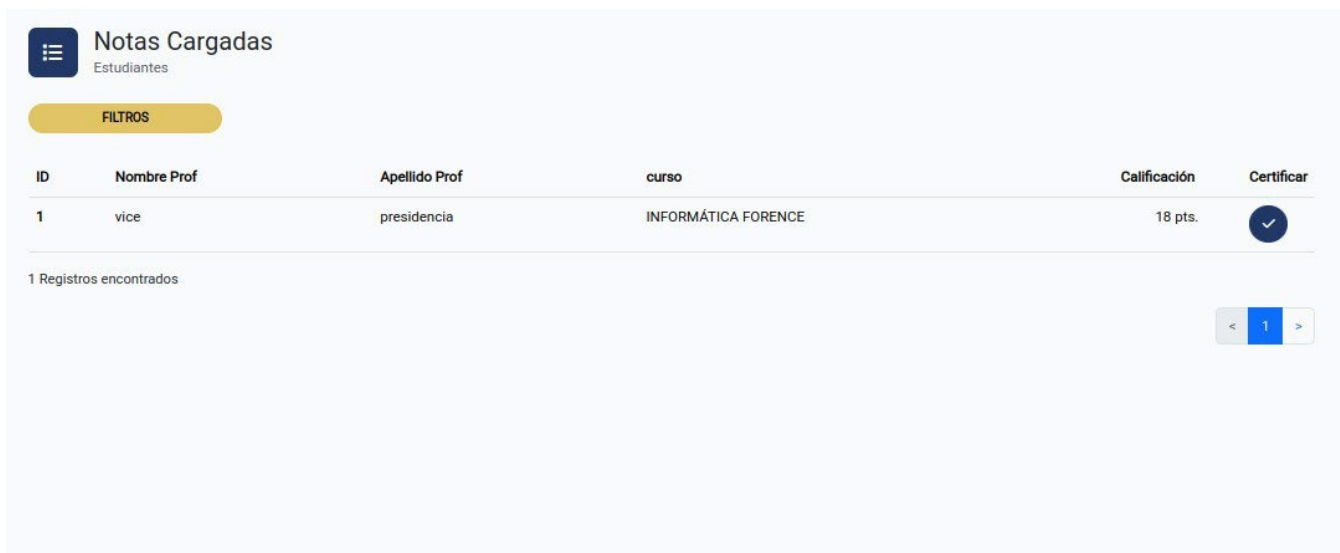
ID	Nombre	Apellido	Cédula	Sexo	Correo	Telefono	Curso	Calificación
1	vice	presidencia	18814103	masculino	orestesm21@gmail.com	04122045123	INFORMÁTICA FORENCE	<input type="text"/>

1 Registros encontrados

< 1 >

At this point the student's grade is uploaded, upon registration the student has the option to certify his grades to make the record in the blockchain. This can be seen in the following interface.

Image N°20



Notas Cargadas
Estudiantes

FILTROS

ID	Nombre Prof	Apellido Prof	curso	Calificación	Certificar
1	vice	presidencia	INFORMÁTICA FORENCE	18 pts.	<input checked="" type="checkbox"/>

1 Registros encontrados

< 1 >

Pressing the blue button with the “Qualify” check activates the registration request on the blockchain, prompting the user to sign the transaction.

Image N°21

Sign Transaction

Confirm

orestesm20 - Account #0

Please review the transaction before signing. Enter the wallet spending password or sign with the hardware device to confirm the transaction.

Sign ⓘ

🔒 Enter the spending password

Cancel

Reset

Sign

Transaction Preview (Wallet: orestesm20, Account #0)

Addresses marked as 'own' belong to your wallet. 'ext' marks external wallet addresses.

🔗 Preview: Sent Funds, Received Tokens

meta

mint

SC

unsigned

-tA 2.208267

+1 18814103

no time limit

Valid until: 18/02/2025, 17:59

Transaction Id ⓘ

05f1d173f0ceff5e1937bfbac1cc30e0ef851dc80808900ee359d9c1f9767907

Tx Size

1072

Fee

-tA 0.208267

Preview ⓘ

Image N°22

Sign Transaction

🔗 mint

2 18814103

asset1cwqlw8h75s4lvqjtlkv4prefrw82e00x1308v ⓘ

1 UTxO Collateral Input(s)

addr_test1qpnxfn4cm...fadcfquwvashtstne ⓘ ⓘ

Account #0

tA 9,978.932989

1 UTxO Input(s)

addr_test1qpnxfn4cm...fadcfquwvashtstne ⓘ ⓘ

Account #0

tA 9,978.932989

1 UTxO Collateral Output

addr_test1qpnxfn4cm...fadcfquwvashtstne ⓘ ⓘ

Account #0

tA 9,973.932989

3 UTxO Output(s)

addr_test1qpnxfn4cm...fadcfquwvashtstne ⓘ ⓘ

Account #0

tA 2

> 1 18814103

addr_test1wqh599ky7...uzmjnr3hswcvf23zm ⓘ ⓘ

Script

tA 2

> 1 18814103

addr_test1qpnxfn4cm...fadcfquwvashtstne ⓘ ⓘ

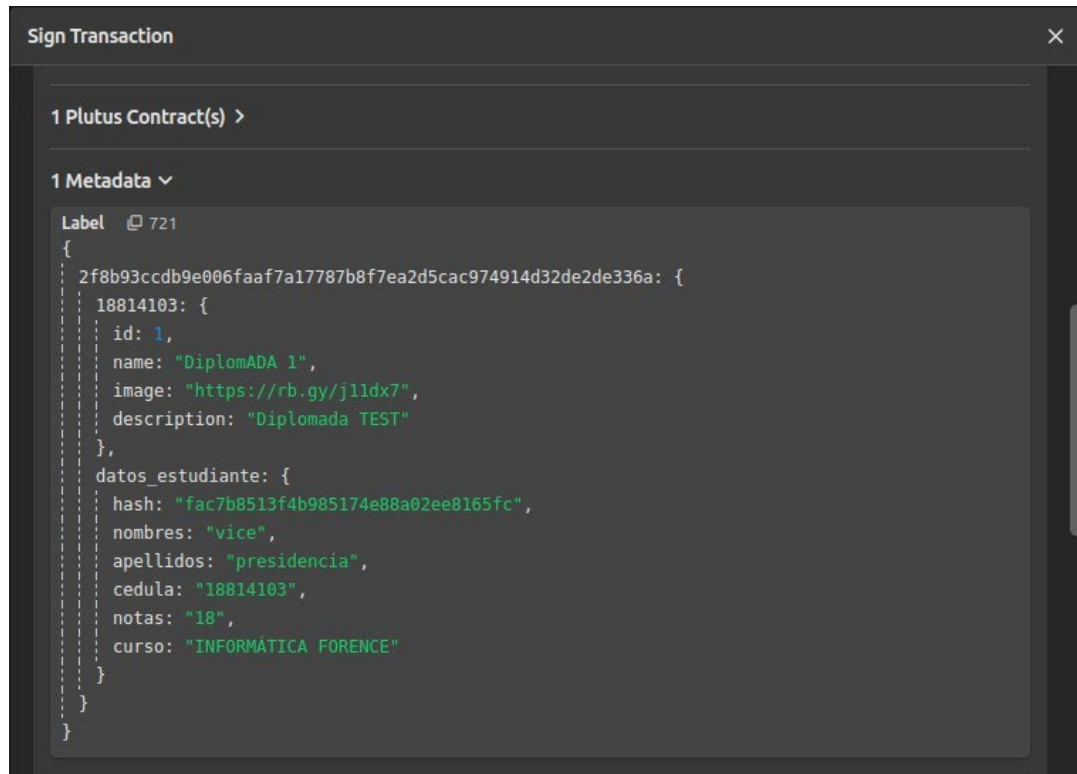
Account #0

tA 9,974.724722

📄

ⓘ

Image N°23



When the transaction is completed, you can verify in the block explorer the transaction made by the student, this certifies and closes the process completely completing the cycle of the student enrollment and continuation process. This can be verified in the Etnal explorer.

Imagen N°24

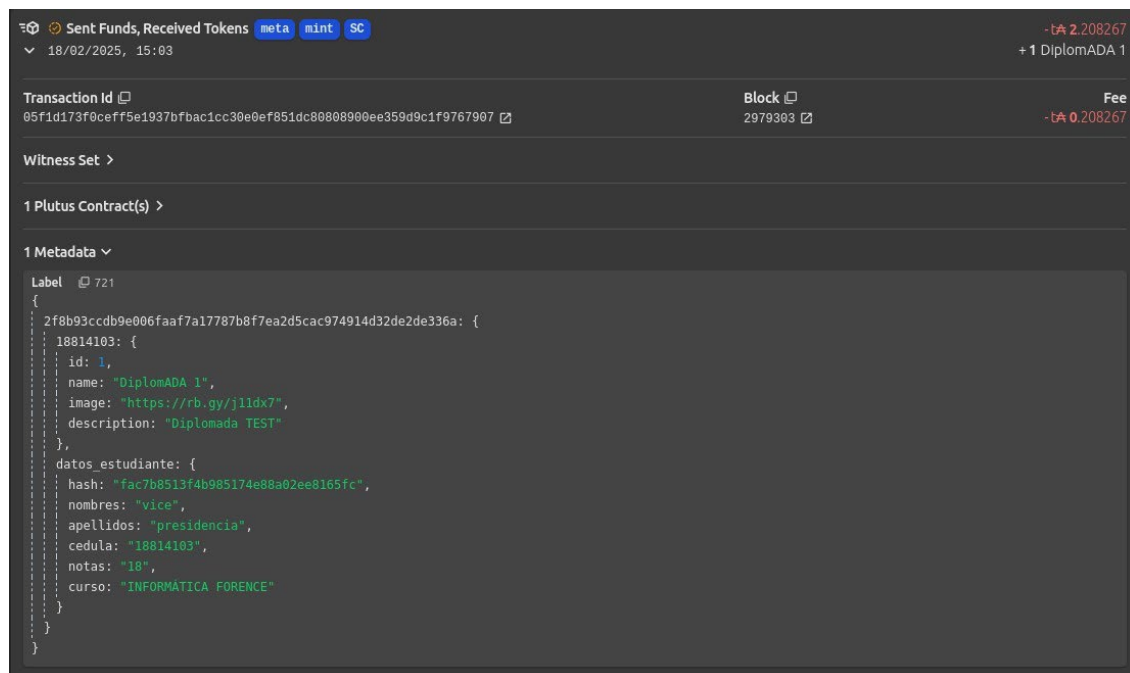
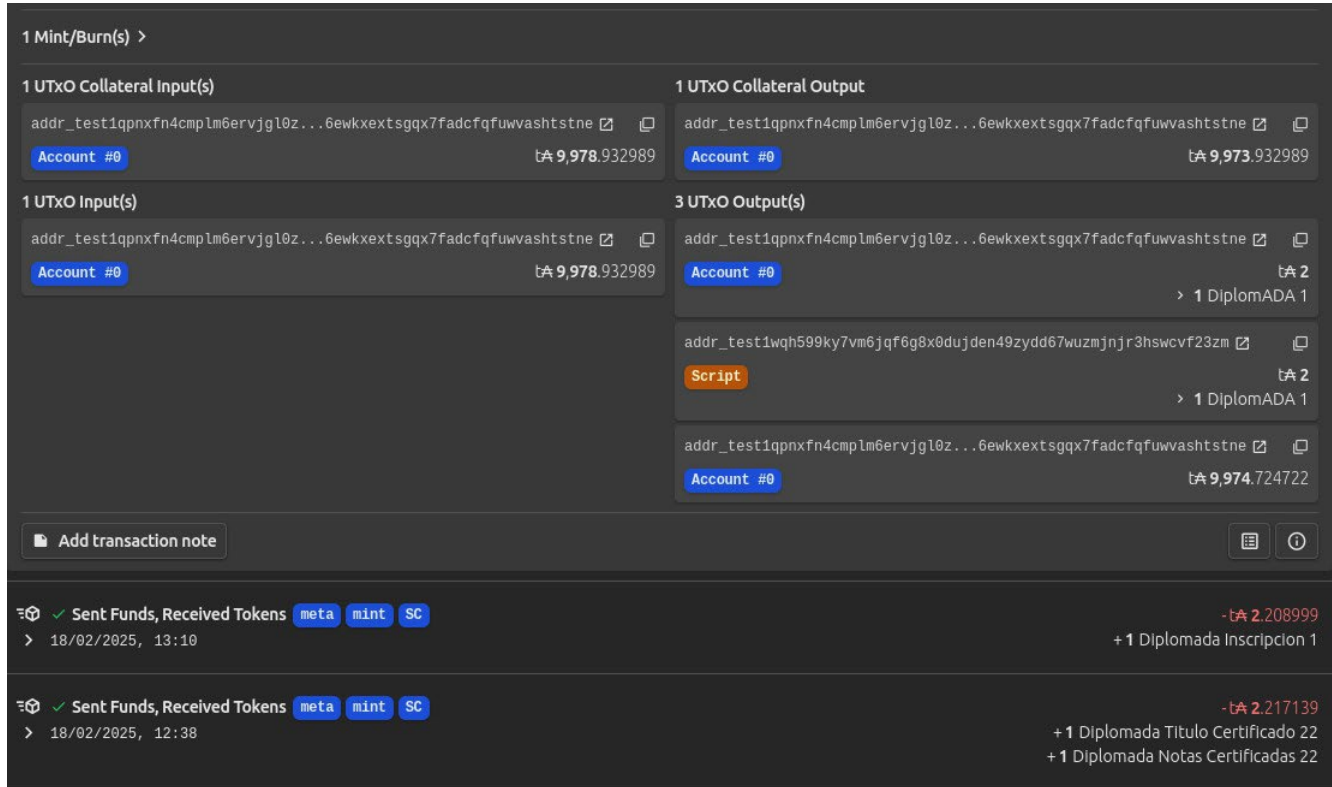


Imagen N°25



With this we can conclude that the process of interaction between the study control system DiplomAda and the blockchain on the Cardano platform is not only possible, but it is a tool that solves an administrative and often bureaucratic problem that is the certification and validation of academic information.

We have effectively proven that structured applications with conventional use cases can be decentralized to provide greater fidelity and confidence in maintaining data integrity.