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# **STUDY CONTROL SYSTEM FOR UNIVERSITIES**

## **DIPLOMADA#1100266**

### **MILESTONE 2 COMPLIANCE REPORT**

#### **Test report for each API Endpoint**

## Synopsis

This document frames the internal functions of the web3 component of the DiplomADA system. These functions cover the actions of: - Connection to the portfolio. - Registration payment. - Cancellation of registration. - Registration of Title and Certified Notes - Certification of Academic and Administrative Compliance - Cancellation of Registered Title - Cancellation of Registered Certified Notes - Discreditation of Academic or Administrative Compliance - Issuance of the DiplomADA. - Cancellation of the DiplomADA.

## Features

### 1. Connection to wallet

#### connect\_wallet

Make the connection with the wallet API via Lucid+CiP30.

Parameters: - portfolio\_name: string -> Unique identifier of the student in the system. - config: object -> Object with configure parameters, we can read which network will be used (mainnet, preview, preprod) and which Blockfrost ProjectID.

Results: API object based on lucid library connected to the wallet by CiP30.

### 2. Registration

#### registration\_payment

Making the student's registration payment to the system account. Creation of the NFT proof of registration.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters.

Results: - ok, txId: string -> OK status and hash of the transaction on the blockchain. - error, error\_msg: error -> Error for error capture and management.

#### cancel\_registration

Return payment, less possible penalty, based on administrative variables.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters, we can obtain the penalty. - ac\_constancia\_inscripcion: string -> AssetClass of the NFT of the registration certificate.

Results: - ok, txId: string -> OK status and hash of the transaction on the blockchain. - error, error\_msg: error -> Error for error capture and management.

## 2. Registration of Title and Certified Notes

### title\_registration

Creates the NFT that represents the registered title, recording related data, such as the URL of the document in the metadata (cip-25).

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - title : object -> Object with title information to be recorded, including the hash of the document.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

### certified\_notes\_registration

Creates the NFT that represents the certified notes, recording related data, such as the URL of the document in the metadata (cip-25).

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - certified\_notes : object -> Object with information about the certified notes, including the hash of the document.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

### cancellation\_registration\_title

Destruction of the NFT that allows the title registry to be authenticated.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - ac\_titulo\_registrado: string -> AssetClass of the NFT of the registered title.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

### cancellation\_certified\_notes

Performs the destruction of the NFT that allows the registration of the certified notes to be authenticated.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - ac\_notas\_certificados: string -> AssetClass of the NFT of the certified notes.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

### 3. Compliance with Academic and Administrative requirements

#### compliance\_certification

Create the compliance certification NFT. Some data will be recorded in the metadata (cip-25)

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - compliance\_data: object -> Data on compliance with academic and administrative requirements.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

#### discredit\_compliance

Performs the destruction of the NFT that allows the authentication of the compliance certification.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - ac\_certificacion\_cumplimiento: string -> AssetClass of the NFT of the compliance certifications.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

### 4. Issuance of DiplomADA

#### diploma\_issue

Create the NFT of the diploma (diplomADA).

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - ac\_certificacion\_cumplimiento: string -> AssetClass of the NFT of the compliance certifications.

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

#### diploma\_cancellation

Retrieves all rewards for a specific campaign.

Parameters: - student\_id: string -> Unique identifier of the student in the system. - config: object -> Object with general system configuration parameters. - ac\_diplomada : string -> AssetClass of the NFT of the diploma (diplomADA).

Results: - ok, txId: any -> OK status and hash of the transaction in the blockchain. - error, error\_msg: error -> Error for error capture and management.

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