



STUDY CONTROL SYSTEM FOR UNIVERSITIES DIPLOMADA#1100266 REGISTER OF APPROVALS (Annex No. 1)

Approval record

The first life cycle of this project, part of the creation of the idea, continues with the presentation of the proposal on the Proyect Catalyst portal, fine-tuning of the processes to be followed for its execution, approval by Catalyst, reception from the first disbursement, until the operational start of activities.

The self-assessment process was intensified at the time of presentation of the proposal and was further accentuated by the observations made by Catalyst on the project, its corrections and the final approval of the milestones.

In this sense, various meetings were held with the participation of the members registered in the project and the members who assume responsibilities during the execution of the project, for which minutes were drawn up of the agreements reached.

This document specifically presents a record of approval of the deliverables by Catalyst in the DiplomAdA project, which responds to the objective and scope, the technical, procedural and scope aspects of the project, depending on the category in which it was presented.

Milestone 1 (1 - April 2024) (Last presentation of Milestone 1) Milestone results

Define project objectives and scope, define roles, create a project schedule, design system architecture

Criteria of acceptance

A clear and concise document that defines:

- 1. Project objectives
- 2. Matrix that clearly defines the roles of each person in the project
- 3. Project management tool to create a project schedule
- 4. Complete documentation of the system architecture.

Evidence of milestone achievement

- 1. Objectives and scope of the project
- 2. Approval record
- 3. Matrix of roles and responsibilities
- 4. Project Schedule in the Project Management Tool
- 5. Architecture documentation

Milestone 2 (1 - June 2024) (Last presentation of Milestone 2)

Milestone results

Set up API development environment, develop API, perform API unit testing, configure web3 development environment, develop UI and administration

Criteria of acceptance

- 1. The application must be able to request and obtain the user's credentials. The application should display a message to the user requesting their consent to access their credentials.
- 2. The app must be able to connect to a wallet, the wallet must be available, and the app must be able to connect to the wallet when selected. The application must allow the user to sign transactions using their wallet. The application must display an interface that allows the user to review the details of the transaction before signing it.
- 3. The application should display relevant information about signed transactions, such as the transaction hash, sender, and recipient.

Evidence of milestone achievement

Please provide the information necessary to properly evaluate the implementation of this milestone.

Evidence to evaluate the implementation of an API and Web3 portal:

1. Functionality:

- a. API Testing, for each API endpoint, including requests and responses, Test Reports.
- b. Test reports that demonstrate the usability and accessibility of the portal.
- c. Screen recordings showing the user's workflow.

2. Security:

- a. Security testing, source code and infrastructure vulnerability analysis.
- b. Penetration testing: to identify and mitigate security risks.
- c. Implementation of security measures: Authentication, authorization and encryption.
- d. Document findings and recommendations.

3. Performance:

- a. Load tests:
- 1. Simulation of a large volume of users to evaluate the scalability of the portal.
- 2. Monitoring server and network performance during load testing.
- 3. Code and infrastructure optimization: to improve performance.

4. Performance analysis:

- a. Identification of bottlenecks: And points for improvement in performance.
- b. Solution implementation: To optimize response time and latency.

5. Documentation:

- a. API and web3 portal documentation
- b. Video-Tutorials to explain the key functionalities of the portal.

Milestone 3 (1 - August 2024) (Last presentation of Milestone 3)

Milestone results

Design smart contracts and NFTs, define structure, code smart contracts and NFTs, unit test contracts and NFTs

Criteria of acceptance. The application must be able to display information about smart contracts such as:

- 1. The address of the contract
- 2. Available functions
- 3. Must be able to initially interact with auditable smart contracts on the Cardano blockchain tesnet network.

Evidence of milestone achievement. Among the evidence we have:

- 1. Screenshot of the application showing information about a smart contract.
- 2. Screenshot of the application showing the execution of a smart contract function.
- 3. Record of the interaction with the smart contract in Blockchain

Milestone 4 (1 - October 2024) (Last presentation of Milestone 4)

Milestone results

Integrate web3 portal with API, integrate web3 portal with smart contracts and NFT, integrate notification system with web3 portal and API

Criteria of acceptance

The acceptance criteria are the following:

- 1. The API must be able to provide the web3 portal with the necessary data to display the information correctly and up-to-date.
- 2. The web3 portal should consume API data efficiently, without affecting application performance.
- 3. The web3 portal must be able to interact with smart contracts implemented on the blockchain.
- 4. The web3 portal should allow users to transact with NFTs, such as buying, selling, and transferring.
- 5. The web3 portal must be able to send notifications to users about relevant events, such as the receipt of an NFT or the execution of a transaction.
- 6. The notification system must be configurable so that users can choose what type of notifications they want to receive.

Evidence of milestone achievement

The evidence presented will allow a complete and accurate evaluation of the implementation of the milestone, they are the following:

Evidencia:

API Integration:

- 1. Screenshots or videos showing the successful connection between the web3 portal and the API.
- 2. Test logs detailing requests and responses between the web3 portal and the API.
- 3. Confirmation of correct data transfer, integration with smart contracts:
- 4. Screenshots or videos that demonstrate the interaction of the web3 portal with smart contracts.
- 5. Visualization of the execution of smart contract functions from the portal.

Transaction logs:

- 1. Showing the transactions carried out on the Blockchain related to the actions of the portal.
- 2. Screenshots or videos showing the display of NFT on the web portal3.

User tests:

- 1. Test reports detailing tests performed by real users with the web3 portal.
- 2. Collect comments and suggestions about the user experience.

Milestone 5 (1 - Dec 2024) (Last presentation of Milestone 5)

Milestone results

The application must be tested thoroughly to ensure that it meets the requirements and expectations of the users. Tests should cover different usage scenarios and edge cases. Therefore, the application must be deployed on a testnet to test its operation in a real environment. Integration tests must be carried out with the Blockchain network.

Criteria of acceptance

Unit test reports must be carried out that indicate the success or failure of each test as well as integration tests that show the interaction between the different modules of the application.

Evidence of milestone achievement

The evidence to evaluate Testnet Implementation Testing and Feedback Collection is as follows:

- 1. Screenshots or videos: From implementation tests.
- 2. Testnet Performance Analysis Reports.
- 3. User comments on forums or emails.

Final milestone (1 - January 2025) (Last presentation of Milestone 6)

Milestone results

Deploy contracts to mainnet, perform integrity testing on mainnet, final project completion report

Criteria of acceptance

Ensure fixes and improvements do not impact existing functionality, run automated tests to detect errors or regressions, perform a final security audit to identify and fix vulnerabilities, carefully migrate data from the test network to the main network and present the findings of the project and its impact on the organization.

Evidence of milestone achievement

A closing report and a video will be presented, and the prototype will also be delivered

REGISTRO DE APROBACIÓN DE LOS HITOS DEL PROYECTO DIPLOMADA

Compilation: Msc. Félix Enrique Dávila Gerente de Control y Seguimiento	
Participants in the generation of information: Msc. Carlos Palacios Líder de Proyecto	
Participants in the generation of information: Msc. Jacquelin Colina	
Participants in the generation of information: Lic. Orestes Gutierrez	

Participants in the generation of information: Ing. Wesly Jeune	
Participants in the generation of information: Prof. Jean Carlos Aguilar	