Digital Document Archive with Authenticity Guarantee

Group 10

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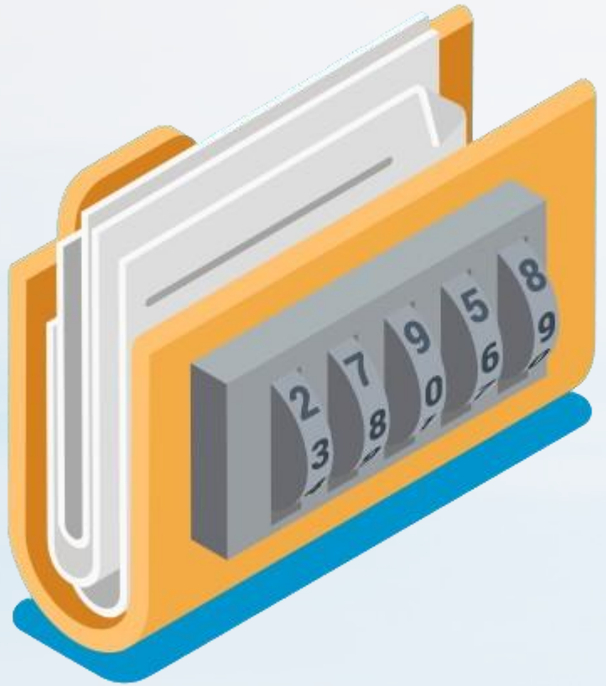

Context & Problem

Predominance of Digitalization

Growing use of digitalization and its implications for document handling.

Need for Storage of Large Documents

Challenges related to the need to store large volumes of digital documents.

Document Handling and Authentication

Need to make the authenticity of digital documents evident and simplify their handling.

Store Space Limitations

Challenges arising from storage space limitations in public institutions and upload restrictions.

Goals

1

Simplify Document Submission

Facilitate the process of sending digital documents, ensuring security and practicality.

2

Guarantee Authenticity of Documents

Ensure the authenticity and integrity of digital documents over time.

3

Remove Size Restrictions

Eliminate limitations on the size and storage capacity of digital documents.

4

Ensure Integrity Over Time

Prevent submitted documents from being tampered with.

Use Cases

User (document submitter)

- Document submission
- Document search
- Document update
- Document exportation and sharing
- Access control

Company (link receiver)

- Document access
- Authenticity verification
- Change tracking

Expected Results

1 **Intuitive User Interface**

Development of an intuitive interface that simplifies the document submission process for users.

2 **Document Authentication**

Usage of digital signatures to authenticate submitted documents, ensuring their validity and integrity.

3 **Unique Link Generation (DOI)**

Integration with DOI to generate unique links for submitted documents/sets of documents, facilitating their sharing and referencing.

4 **Permanent Storage (Archivematica)**

Use of Archivematica platform for the permanent and secure storage of documents, ensuring their long-term preservation.

Project Calendar – Tasks (1)

Task 1: State of the Art Analysis

Examination of existing systems similar to our purpose.
(André, Bruno, Maria, Miguel, Pedro & Tiago)

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2

Task 2: Requirements gathering

Identification and documentation of system requirements.
(Maria & Tiago)

Task 3: Archivematica Platform Analysis

3

Exploring the potential of this platform for our project.
(André, Bruno, Maria, Miguel, Pedro & Tiago)

4

Task 4: Definition of Architecture

Establishment of the architecture of the file system to be developed.
(André, Bruno, Maria, Miguel, Pedro & Tiago)

Task 5: Frontend - User interface

5

Development of an user interface to access all system interfaces.
(Miguel & Pedro)

Project Calendar – Tasks (2)

6

Task 6: Integration with file system

Development of an integration with Archivematica
(André & Bruno)

7

Task 7: Authentication/Authorization systems

Development of authentication system with external provider, such as autenticacao.gov.
(Maria & Tiago)

8

Task 8: Transaction recording system with authenticity guarantee

Development of a system that records transaction states, such as a blockchain.
(Maria, Miguel, Pedro & Tiago)

9

Task 9: Retrieval system with hash verification

Development of a system to retrieve the intended documents based on their hash.
(André & Bruno)

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Task 10: Frontend - Usability tests

Ascertain the ease of use of the user interface.
(Miguel & Pedro)

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Task 11: Validation tests

Validate the overall system using unit and integration tests.
(André, Bruno, Miguel & Pedro)

Communication Plan

Repository: Github

Within group:

- **Meetings:** At least 1 per week (more if needed) – Discord
- **Conversations:** Every day (almost) – WhatsApp group

With the advisors:

- **Meetings:** 1 scheduled per week (more if needed) – Zoom
- **Conversations:** When necessary – Email (by the group representant - André)

Questions