CSU22013/CSU33013: Group 33
Requirements Document
Blockchain publishing system

Propylon

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Here is an example of how to make images work in LaTeX

Figure 1: Example of the passion fruit flower

The flower as shown in figure 1 is a beautiful flower.

1 Introduction

1.1 Overview and Success Criteria

Validation of information on the internet has gotten harder and harder with time. The internet is filled with misinformation, untrustworthy history and suspicious soures. The need for a way of validating infromation found on the internet in a way that is trustworthy has become ever so important in our day and age.

This is where Blockchain comes in, it will provide an effective way of validating history, current information and prevent tamperment with information in the internet.

The Blockchain will work with solving these problems and the website itself will give a user friendly experience to the user, showing them visually, previous versions of information they seek as well as giving a visual indicator of validity and that tamperment for certain did not occur, so that the user can be certain of its validity.

1.2 Scope

The following items are in scope for this project:

- The system must be able to validate the authenticity of information that is on the blockchain.

- The system must prevent tampering of information.

- The system must allow users to visually see the following:

  - Authenticity of information.
  - Previous history versions of that information.
  - If information has been tampered with.

- The system can support a pre-existing blockchain or a new one.

- The system can be built on pre-existing open source CMS such as WordPress or a personal website.

- The system allows for documents to be viewed publically.

The following items are out of scope for this project:

- The system does not need to support mobile devices, desktop is sufficient.

- The system does not need to support multiple information methods of showing something to a user, a blog will suffice.

- The system focuses on the blockchain aspect and so, a website that allows users to login and register and creating passwords and login, is out of the scope. A simple login that demonstrates the blockchain capability is sufficient.

1.3 Objectives and Success Criteria

After completing the project, a successful project will have the following criteria:

- The system will allow a user to enter the website.

- The system will show a list of documents a user can click on.

- The system will provide the user with information such as history, authenticity, and if it has been tampered with.

- The system will have a simple GUI for the user to have an enjoyable experience.

- The system will provide all information that is accessible to any user that so wishes to see it.

- The system's information will be blog posts.

- The system will prevent tampering of information.

1.4 Definitions and Abbreviations

- **UI**: User Interface; How a user interacts with a computer

- **GUI**: Graphical User Interace; A form of UI that allows the user to interact with the computer through the use of graphics.

- **Blockchain**: Interlinked blocks that contains cryptographic hashes of the previous blocks, timestamps, and transaction data.

- **Genesis block**: The start of a blockchain, it does not have a hash to point to a previous block.

- **Crypto**: Anything related to the mathematical cryptography for use of secure communication.

1.5 References

- https://www.educba.com/what-is-gui

- https://en.wikipedia.org/wiki/Cryptography

- https://www.youtube.com/watch?v=wHTcrmhskto

- https://www.youtube.com/watch?v=bBC-nXj3Ng4

- https://www.youtube.com/watch?v=SSo_EIwHSd4

- https://propylon.com/platform-architecture

- www.citizensinformation.ie

2 Current System

3 Proposed System

3.1 Overview

3.2 Functional Requirements

3.3 Non-functional Requirements

3.4 System Prototype (Models)

3.4.1 User Interface Mockups

3.4.2 Use Cases (including text narratives)

3.4.3 Object Model

3.4.4 Dynamic Model