# Assignment: Document Authenticity

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## The Assignment

### prerequisites

Before starting this exercise, you need to watch the lesson about Solidity Advanced, Truffle, Ganache, Dapp

### Task Description

The task is to build a Decentralised Application that allows you the validate copyright infringements. The application needs to support the following user stories:

- **Register a new document on the ethereum network**
- **Check if document is already registered by an author**
- **Retrieve registered documents through the author's name**

### User story 1: Register a new document on the ethereum network

An author can upload a pdf document to register the proof of ownership as an Author. If the document is for the first time registered, then a hash code of the document is generated and the hash is stored into the blockchain together with some some meta-data of the document. (Like Title, Author name, e-mail address, date written).

If the document is already been registered, then a message is generated stating that the document is been registered by the following Author, showing all the meta information of the document.

### User story 2: Check if document is already registered by an author

An individual can upload a document to the system to check whether is already been registered. If the document is already been registered, then a message is

generated stating that the document is been registered by the following Author, showing all the meta information of the document. Otherwise a message is generated stating that this is an unknown document.

**User story 3: Retrieve registered documents through the author's name**

An individual can use a search box to find registered documents under an author's name. The search result should return a list of titles with their release dates and the contact details of the author.

**Deliverables**

The application should implement the necessary design pattern and design principles so that the application has maximum reusability and maintainability.

To keep everything fair, we expect minimal to implement the 3 user stories and provide :

- Build the letter of credit workflow explained in the Task Description.
- Delivery of working code written in the truffle development environment with the necessary files for testing, deployment and migration
- Document that describes the delivered functionality and the team members.
- The use of metamask is not required, a node.js application is perfect enough.
- A part of the code should be written in assembly code for performance/gas cost reasons. Explain in a separate document why.
- The use of mocha as test framework for your node.js application

The assignment is quoted for 15 percent of the Blockchain Development exam. The task is evaluated on the implemented functionality, code quality and test scenario's

Deadline is 15 April 2018 and is uploaded on the leho platform.