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→ Internship task 1 :
Real-world Solution design Exercise

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Batch - Batch 2 (Level 2)
Problem title - Fake certificate or Document verification

Problem Description -:
In today's digital world, fake educational certificates, identity proofs and governments documents are increasingly common. These fraudulent documents lead to loss of trust, financial scams and reputation damage for institutions and employers. Manual verification methods are slow, prone to human errors, and not scalable for large volumes of documents

Target users -:
* Educational institutions & Universities
* Employers and HR departments
* Government agencies issuing identity or license documents
* Recruitment and verification companies

Pain points -:
* Time-consuming manual document verification

* Lack of centralized and tamper-proof records
* Difficulty in identifying digitally manipulated or forged certificates
* Increased risk of fraud in hiring and admissions

Proposed Solution —:

An AI powered Document verification System, integrated with Blockchain
* AI (Computer vision + NLP) scans and extract text/data from uploaded documents.
* Machine learning models detect inconsistencies or forged patterns
* using anomaly detection.
* Blockchain ledger stores verified document hashes to ensure tamper-proof authencity.
* Users (HR, universities) can instantly verify authenticity by scanning or uploading the document to match against the blockchain record

Tools / Technologies used —:

* AI/ML - Python, OpenCV, Tensorflow, Scikit-learn
* Blockchain - Ethereum / Hyperledger fabric
* Database & Backend - Firebase / MongoDB
* Frontend (Optional) - React / Streamlit

Expected Outcomes —:

* 90%+ reduction in manual verification time
* Tamper-proof and transparent verification system
* Increased trust between institutions, employers, and applicants
* Real-time digital validation of certificates

Diagram (Concept overview) :-