Ideation Phase
Brainstorm & Idea Prioritization Template

Date	19 OCTOBER 2023
Team ID	70EC19FAE9813319D72456EE8215AF70
Project Name	Blockchain-powered library management
Maximum Marks	4 Marks

Idea Prioritization Matrix:

To prioritize these ideas, you can create a matrix based on two key dimensions:

1. **Impact:** How much will the idea positively influence the effectiveness and

security of the electronic voting system? Rate it on a scale of 1-5, with 5 being the highest impact.

2. **Feasibility:** How feasible is it to implement the idea considering budget,

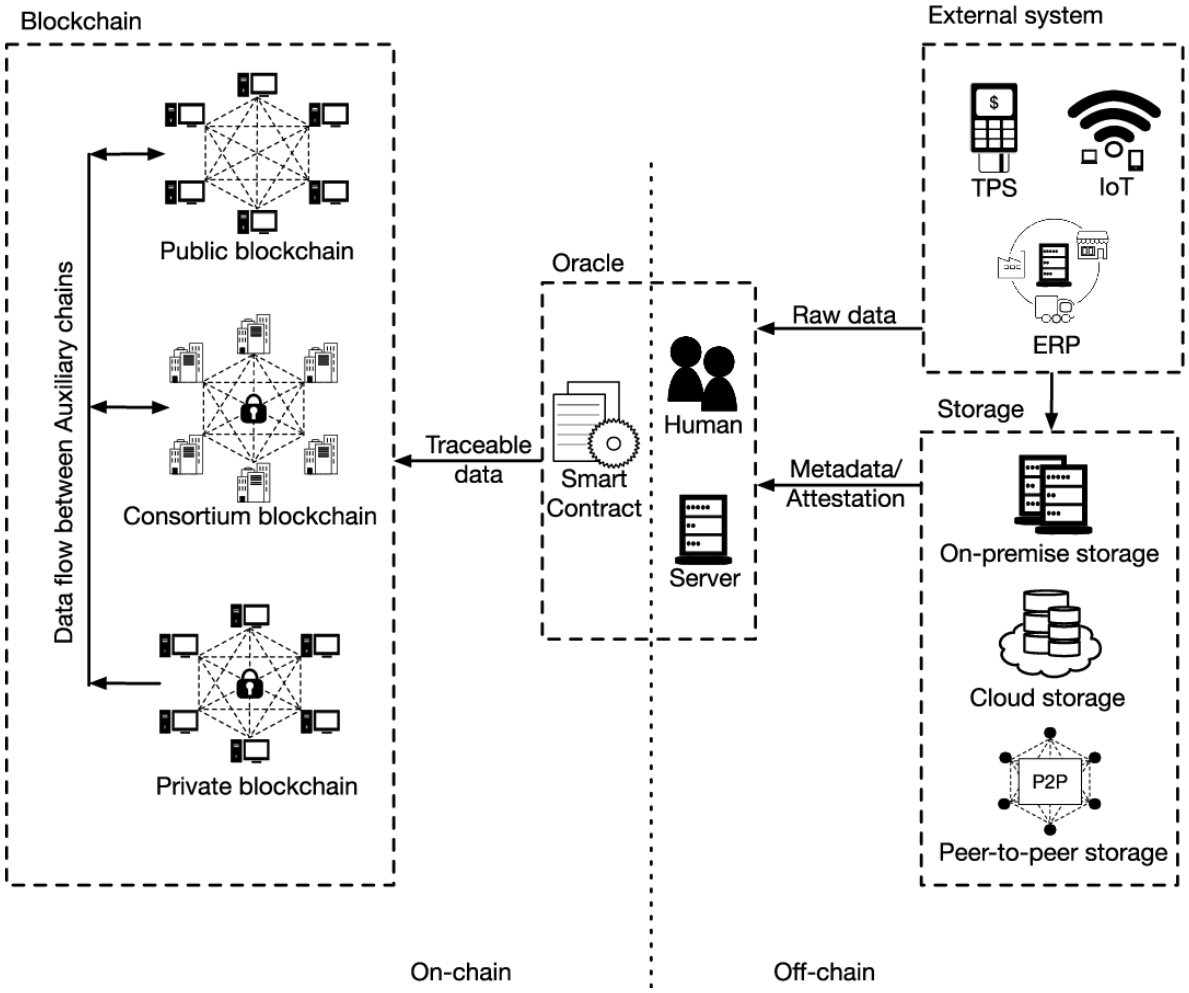
technology, and resources? Rate it on a scale of 1-5, with 5 being the most

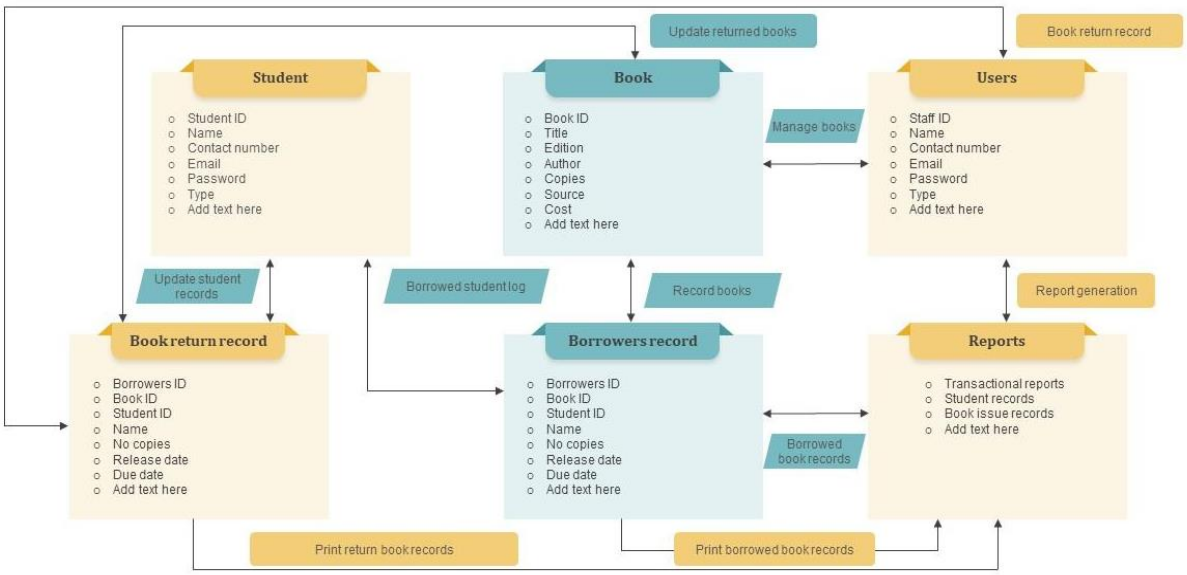
Rank each idea based on these dimensions and calculate a combined score for each idea (Impact x Feasibility). Prioritize the ideas with the highest combined scores.

Blockchain technology can be utilized to enhance various aspects of library management, making it more efficient, secure, and transparent. Here are some ways in which blockchain can be applied to library management:

Secure Cataloguing and Data Integrity	Blockchain can be used to create a secure, tamper-proof catalogue of all the library's resources, including books, digital media, and other materials. Each item in the library's collection can be assigned a unique digital identifier (a hash) on the blockchain, ensuring data integrity and preventing unauthorized changes or deletions.
Smart Contracts for Licensing and Borrowing	Smart contracts can automate the lending and borrowing processes. Patrons can request items, and the system can automatically verify their eligibility, issue due dates, and track returns. This reduces administrative overhead and ensures accurate and transparent transactions
Digital Rights Management (DRM)	For libraries offering digital content, blockchain can be used to manage DRM, ensuring that users only access content for which they have the appropriate permissions, licenses, or subscriptions.
Interlibrary Loans	Blockchain can streamline the process of interlibrary loans by creating a transparent and efficient system for borrowing and returning items between different libraries.
Patron Identity and Privacy	Blockchain can improve patron privacy by allowing users to control and secure their personal information. Patrons can share only the necessary information with the library, enhancing privacy and data security.
Transparent Usage Tracking	Libraries can track resource usage, such as the popularity of books and digital resources, which can help in collection development and resource allocation decisions.

Inventory Management	Blockchain can provide a transparent and efficient way to manage the library's inventory, helping staff keep track of available resources, their condition, and their locations.
Decentralized Catalogue Sharing	Libraries could participate in decentralized, blockchain-based networks that allow them to share their catalogues and resources with other institutions, expanding access to a wider range of materials for patrons.
Fines and Fees	Automation via smart contracts can help calculate and collect fines or fees for overdue items, damaged materials, or other charges. Patrons can easily see their financial responsibilities and settle them on the blockchain.
Immutable Records for Historic Data	The blockchain can store a historical record of all library transactions and changes, providing an immutable audit trail for accountability and reference.





The overall system architecture can be a high-level representation, and a real-world implementation would be more complex and it is represented below.