Project Design Phase-I

Solution Architecture

Date	19 October
Team ID	70EC19FAE9813319D72456EE8215AF70
Project name	Blockchain-powered library management
Maximum marks	4 marks

Explanation of Components:

Blockchain Network: This is the underlying blockchain infrastructure that stores and manages the library's data. It includes the distributed ledger technology and consensus mechanism.

Smart Contracts: These are self-executing contracts that automate various library management processes, such as cataloguing, lending, borrowing, and more.

User Interface (UI): The UI components provide access to the system for patrons, librarians, and administrators. They interact with the smart contracts through a user-friendly interface.

Library Management Server: This server manages the interaction between the user interface and the blockchain network. It may integrate with existing library systems, ensuring a seamless connection between the blockchain-powered system and the library's other operations.

External Data Sources: These sources provide additional data necessary for the system, such as patron information, resource catalogue data, and regulatory information.

This architecture allows for a transparent and efficient library management system powered by blockchain technology. It automates processes, enhances security, and ensures data integrity while improving the user experience for patrons and library staff.