EXPERMINT: 05

- **Project Title**: **Crowdfunding in Education Using Blockchain**
- **Aim:** To demonstrate the Scope Define with reference to Gap Analysis in the industrial perspective.
- **Theory:**

Scope Definition:

Problem Statements:

- **Financial Barriers in Education**: Many students face financial obstacles when pursuing higher education due to exorbitant tuition fees, which restrict their access to quality education.
- **Inefficiencies in Funding Systems**: The current centralized educational funding systems are plagued by inefficiencies, bureaucratic processes, and high administrative costs, leading to delays and lack of transparency in fund distribution.
- **Lack of Trust in Fundraising**: Traditional fundraising methods lack transparency, hindering potential donors from contributing to educational causes due to concerns about the misuse of funds and lack of accountability.
- **High Fees and Restrictions in Crowdfunding Platforms**: Traditional crowdfunding platforms often impose high fees and restrictive policies, limiting the potential impact of educational initiatives and discouraging participation from donors and beneficiaries.
- **Interoperability Challenges Among Crowdfunding Platforms**: Existing crowdfunding platforms operate in silos, lacking interoperability and standardization, which hinders collaboration and coordination in the educational fundraising ecosystem.

Justifications:

- **Empowerment Through Blockchain**: Blockchain-based crowdfunding platforms empower students to directly raise funds for their education from a global pool of donors, thereby reducing the reliance on traditional financial institutions and intermediaries. (Pedersen et al., 2020)
- **Transparency and Efficiency**: Blockchain technology enhances transparency and efficiency in fund allocation by providing immutable records of transactions and automated execution of smart contracts, ensuring that funds are disbursed only upon fulfillment of predefined conditions. (Azouaou & Xu, 2019)
- **Trust Through Decentralization**: Decentralized crowdfunding platforms built on blockchain technology instill trust among donors and beneficiaries through decentralized governance and transparent fund management, thereby increasing donor confidence and participation. (Li et al., 2019)
- **Cost-Effectiveness and Accessibility**: Blockchain-based crowdfunding platforms offer cost-effective solutions with lower transaction fees and fewer intermediaries, making educational fundraising more accessible to a wider audience of donors and beneficiaries. (Swan & Nissen, 2019).

- **Interoperability Standards and Collaboration**: Initiatives such as the Interledger Protocol (ILP) aim to establish interoperability standards for crowdfunding platforms, enabling seamless transfer of funds and collaboration between different platforms, thereby fostering a more cohesive and efficient educational fundraising ecosystem. (Thomas et al., n.d.)

Gap Analysis:

- The existing landscape of educational fundraising lacks a comprehensive, transparent, and efficient crowdfunding platform tailored to the industrial perspective.
- Current systems suffer from inefficiencies, lack of transparency, high fees, and interoperability challenges, which hinder the effective mobilization and allocation of funds for educational purposes.
- Bridging these gaps necessitates the development of a blockchain-based crowdfunding platform specifically designed to address the unique needs and challenges of educational fundraising in the industrial sector, incorporating features such as smart contracts, tokenization, and interoperability standards.

Conclusion: -

This Scope Definition provides a detailed overview of the identified problem statements, justifications, and references, along with a gap analysis emphasizing the need for a blockchain-based crowdfunding platform tailored to the industrial perspective to address the challenges and inefficiencies in educational fundraising.