Title of Project

Student' s Soul - the non transferable token

College name and Department

New Horizon College of Engineering

Computer Science and Engineering Department

Names of Students and Guides

SJ Kennith - kennith.selva@gmail.com

Rohit Manivel - rohitmanivel9@gmail.com

Tejashwin U - tejashwin.uday@gmail.com

Guide name

M Thanga Subha Devi - thangasubhadevim.nhce@newhorizonindia.edu

Dr Nirmala M - drmnirmala15@gmail.com

Keywords

- Blockchain
- Tokens
- Soul Bound Tokens
- Cryptocurrency
- Immutable Documents

Introduction

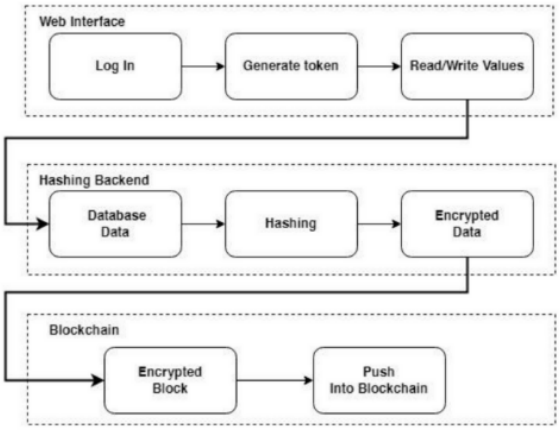
The Soul Bound Tokens project falls under the domain of blockchain technology and decentralized applications (dApps). Blockchain technology is a decentralized and distributed ledger that enables secure and transparent transactions without the need for intermediaries. It provides a tamper-proof and immutable infrastructure that is resistant to hacking and fraud, making it ideal for applications that require trust and transparency. Decentralized applications (dApps) are software applications that run on a blockchain network, enabling peer-to-peer transactions and interactions without the need for intermediaries. They leverage the power of blockchain technology to create secure, transparent, and decentralized platforms for a range of applications, including finance, gaming, and social networking. The Soul Bound Tokens project utilizes the power of blockchain technology and dApps to create a platform for preserving and sharing intangible assets. It leverages the decentralized and immutable infrastructure of blockchain technology to ensure the security and accessibility of memories, experiences, and legacies. The project falls under the domain of blockchain-based applications for preserving and sharing information and assets, providing a promising solution to the issue of lost intangible assets.

Objectives

- Create a decentralized platform: The primary objective of the project is to create a decentralized platform that leverages the power of blockchain technology to enable secure and transparent transactions without the need for intermediaries.
- Preserve intangible assets: The project aims to create a platform that enables individuals, communities, and institutions to preserve their intangible assets, such as memories, experiences, and legacies, in a secure and reliable manner.
- Ensure ownership and privacy: The platform will enable users to retain ownership and control of their digital assets while ensuring their privacy and security. It will provide users with the ability to customize their digital assets and determine who has access to them
- Expand and develop the platform: The project aims to create a sustainable and scalable platform that can be expanded and developed over time to cater to a range of applications and users. It will continually evolve to meet the changing needs of its users and to leverage the latest advancements in blockchain technology.

Methodology

The methodology for the project on Soul Bound Tokens involves several steps, including the design and development of the Soul Bound Token smart contract, the implementation and deployment of the smart contract on the Ethereum blockchain, and the creation of a web-based user interface for users to interact with the smart contract. The first step in the methodology involves the design and development of the Soul Bound Token smart contract. The smart contract is a self-executing code that runs on the Ethereum blockchain and is responsible for creating, managing, and distributing Soul Bound Tokens. The smart contract will include functions for creating and managing Soul Bound Tokens, as well as functions for transferring and sharing Soul Bound Tokens. The next step in the methodology involves the implementation and deployment of the smart contract on the Ethereum blockchain. This will require the use of development tools such as Remix and Truffle to write, compile, and deploy the smart contract onto the Ethereum blockchain. The deployment process will involve the use of test networks and test accounts to ensure the functionality and security of the smart contract.



Results

- Safer way to store documents Proof of identity is achieved
- Secure implementation of immutability of documents
- Lower transaction fees using Polygon network

Conclusion

In conclusion, the implementation of Soul Bound Tokens (SBT) on the Polygon blockchain has been successfully achieved. The project aimed to develop a blockchain- based solution to address the issues of ownership and authenticity of digital assets, and it has met its objectives. Through the use of the Polygon blockchain, SBTs were able to achieve faster transactions, lower fees, interoperability, and developer-friendliness. These features make it a viable solution for the gaming industry and other areas that require ownership and authenticity of digital assets. The implementation process involved several steps, including requirement analysis, design, development, and testing. The project was carried out by a team of three members, each with their respective roles and responsibilities.