Six Weeks Online Internship Program - 2023
On
Decentralising Learning: Algorand's Blockchain Training Advancements

Executive Summary

Submitted

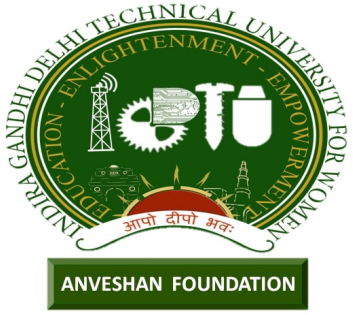
In partial fulfilment

For the award of the degree of

Bachelor of Technology

In **Computer Science and Engineering**

PROJECT TITLE: MEDIBLOCK



Submitted by:-

Bhumika Mittal

Anveshan Enrolment no:- 202306515

University Enrolment no:- 16301012021

Submitted to:-

Mr Rahul Sachdeva

Indira Gandhi Delhi Technical University for Women
Anveshan Foundation IGDTUW Campus Kashmere Gate, Delhi-110006

Executive Summary for Mediblock: Blockchain-Based EHR System

Introduction:

This executive summary provides an overview of an individual **“Mediblock"** project undertaken during a two-month summer break. The project focuses on leveraging blockchain technology to revolutionise healthcare data management, addressing key challenges in India's healthcare landscape.

Problem Statement:

India's healthcare system grapples with operational inefficiencies, fragmented electronic health record (EHR) systems, and inadequate data security. Patients struggle with managing medical histories while existing EHR platforms lack seamless data-sharing capabilities.

Solution Overview:

The **"Mediblock"** project proposes a groundbreaking solution by integrating blockchain technology, Ethereum, Ganache, and IPFS (InterPlanetary File System) into a comprehensive Electronic Health Record (EHR) system. The goal is to enhance data security, accessibility, and patient empowerment.

Key Features:

- **Decentralisation: Mediblock** employs blockchain's decentralised architecture to ensure tamper-proof and secure patient records, eliminating unauthorised access and data breaches.

- **Role-Based Access:** Users, including patients and doctors, experience personalised interfaces that ensure data confidentiality and personalised experience.

- IPFS Integration: Medical records are stored securely on the IPFS network, enabling efficient and quick retrieval of data.

- **Smart Contracts:** The EHR system utilises smart contracts for automated processes, improving efficiency and transparency.

- Patient Control: Mediblock empowers patients with control over their medical data, enhancing privacy and enabling data sharing with authorised healthcare providers.

Implementation Timeline:

The **"Mediblock"** project was successfully executed over a span of **two months during the summer break.** The timeline encompassed research, development, testing, and deployment phases, culminating in creation of a functional prototype.

Conclusion:

In conclusion, the **"Mediblock"** project demonstrates the transformative potential of blockchain technology in healthcare data management. By integrating Ethereum, Ganache, and IPFS, the project envisions a future where patients have secure and seamless access to their medical records, and healthcare providers can make informed decisions, ultimately contributing to a more efficient and patient-centric healthcare ecosystem.