DONATION TRACKING APP

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ABSTRACT:

Giving to charities is essential to solving societal issues. This project presents a powerful donation tracking tool that was created utilising a full stack methodology, allowing users to easily contribute and monitor the results of their contributions. This software transforms the management and tracking of donations by utilising dynamic back-end frameworks like MongoDB and contemporary front-end frameworks like Python-Flask. In order to give consumers complete visibility into the use and impact of their contributions, the project places a strong emphasis on user-friendly interfaces, real-time donation tracking, and comprehensive reporting. This Donation Tracking App improves the efficiency, transparency, and reliability of philanthropic contributions by incorporating secure cloud storage and real-time tracking.

Keywords: *Full Stack Development, Python Flask, MongoDB, Real-Time Tracking, Transparency, Safe Cloud Storage, Donation Management, Donation Tracking App.*

INTRODUCTION:

Transparency, donor confidence, and the efficient use of resources in nonprofit organisations and social welfare institutions are all directly impacted by how charitable donations are managed. To guarantee accountability, reliable, fast, and data-driven donation collecting, distribution, and tracking procedures are essential. Nonetheless, a lot of nonprofits continue to use antiquated techniques like spreadsheets, manual record keeping, and dispersed data sources. These methods frequently result in ineffective fund management, delayed donation monitoring, a lack of real-time visibility, and less transparency, all of which

have an adverse effect on donor confidence and the overall impact of charity endeavours.

LITERATURE REVIEW:

Understanding the development, advantages, and limitations of existing donation management and tracking systems both in academic research and real world charitable practices is the primary objective of this literature study. This review provides the necessary background to support the proposed Donation Tracking App highlighting current approaches technologies used and research gaps related to donation collection transparency fund utilization and data driven decision support in charitable organizations.

RELATED WORK:

Donors, administrators, and nonprofit organisations can all benefit greatly from this project's use of a gift Tracking App to assist charitable organisations and gift management procedures. The project's primary goal is to guarantee that donation-related data is handled effectively and that contributions are monitored without interruption or loss of transparency. Through the use of cutting-edge full stack technology and real-time tracking methods, the system assists organisations in efficiently monitoring donations and gives contributors a clear understanding of how their contributions are used and impacted.

PROPOSE SYSTEM:

The suggested Donation Tracking App is a web-based program created with contemporary technologies like MongoDB for data administration and Python Flask for the backend. Donors and organisations can register, manage donation-related data, examine donation history, and track contributions in real time using the system's centralised platform. Additionally, the platform enables administrators to keep an eye on gathered data, produce clear reports, and guarantee that funds are used appropriately. The solution guarantees efficiency, accuracy, transparency, and increased trust throughout the contribution management process by automating processes like data storage, tracking reporting, and gift recording.
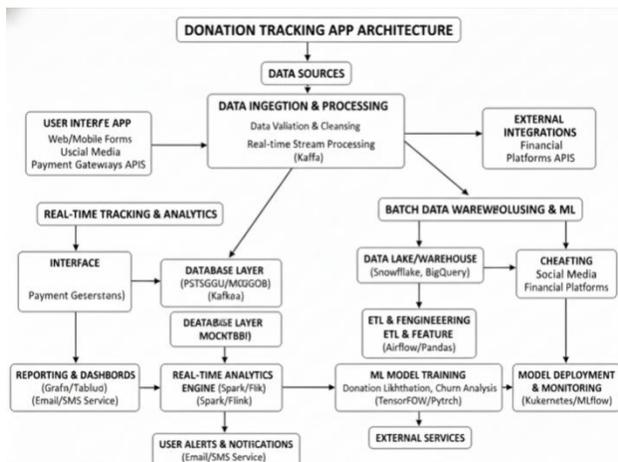
SYSTEM ARCHITECTURE:

Fig1: System architecture of Donation Tracking App

METHODOLOGY DESCRIPTION:

Discovery and Requirements Gathering: During this phase detailed discussions and interviews were conducted with stakeholders such as charitable organization administrators donors and system managers to clearly define the project scope. Key objectives were identified including transparent donation tracking real time monitoring and improved trust in charitable contributions.

System Design and Architecture: In this stage the overall system architecture was designed. This included defining the database schema using MongoDB designing data flow between modules selecting an appropriate

technology stack based on Python Flask full stack development and creating intuitive UI UX wireframes and dashboard mockups.

Agile Development and Implementation: The system was developed using an Agile approach dividing the work into small iterative development cycles. Backend modules were implemented using Python Flask to handle user management donation processing real time tracking and reporting logic.

Testing and Quality Assurance: Comprehensive testing was carried out to ensure system reliability and correctness. Unit testing validated individual modules integration testing ensured smooth interaction between components and system testing verified end to end donation workflows.

Deployment: After successful testing the application was deployed on the server environment. The MongoDB database was configured application files were hosted necessary configurations were completed sample donation data was migrated and basic user training was provided to ensure smooth system adoption.

Post-Launch Monitoring and Maintenance: Post launch monitoring and maintenance ensures the system remains stable and reliable after deployment. System performance donation transactions and user activities are continuously monitored and user feedback is used to enhance features and improve overall functionality.

RESULTS AND DISCUSSION:

Fig2: Power shell to run the application.
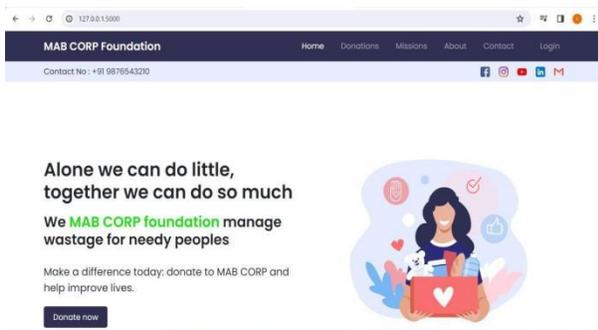
Fig3: Home page
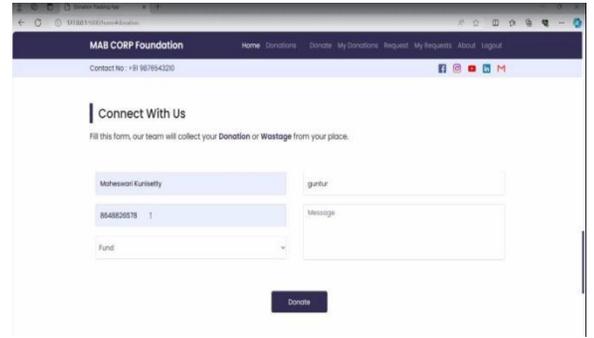
Fig4: User Donations

Fig5: Queued Donations

Fig6: Distributed Donations

CONCLUSION AND FUTURE ENHANCEMENT:

The Donation Tracking App has successfully achieved its objectives by improving the efficiency of managing charitable donations, enhancing coordination among donors, organizations, and administrators, and supporting transparent, timely, and data driven donation tracking and management.

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