GIVEBLOOD: A CROSS-PLATFORM BLOOD DONATION SYSTEM WITH DATA ANALYTICS AND VISUALIZATION IN IMUS CAVITE

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ABSTRACT

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This study aimed to create a Cross-Platform Blood Donation System with Data Analytics and Visualization in Imus Cavite. The purpose of this project was to develop a system that assisted people in need of blood donations by connecting them with active blood donors. The system was designed to enable blood donors to create a personal social profile, which included their blood type and location. This profile facilitated more effective contact between donors and individuals requiring blood donations. Additionally, the system incorporated various techniques, such as Google Account verification, valid ID checks, and OTP (One-Time Password) verification, to ensure the user's identity was verified. To be able to gather the necessary requirements and functionalities for the system, the developers conduct a series of interviews and presented different prototypes to the client and prospective users.

In the development process of the study, a type of an evolutionary model, which is the spiral model is used by the developers to properly plan and execute the project from beginning to end. The spiral model consists of many different iterations, each focusing on improving the last iteration.

The proposed system featured an Account Component with donor and recipient user accounts, allowing users to switch between roles based on their preferences. Donors created labeling profiles, including valid identification and personal information, to assure recipients of their authenticity, while recipients established profiles to maintain transparency with donors. The Communication Feature enabled seamless interaction and discussion among users. The Data Manipulation Capability empowered users to modify their blood type and private details,