

Pathfinders: A Public Commuters' and Parents' Safety and Assistance Application

Tristan Ivan S. Agapito

Gian Matthew M. Sevillano

Erich Ann M. Alfonso

Lindon Chandler R. Lopez

Aragourn Bhoromir G. Sevilla

John Cristian A. Ramos

Basic Education Department - SHS: Technical-Vocational and Livelihood Track- Information and Communications Technology Strand

University of the East, Caloocan Campus

ABSTRACT

The Manila metropolitan area is identified as the world's worst for traffic congestion, compounding challenges faced by commuters. In an effort to contribute to the alleviation of this situation, the Pathfinders app is designed to offer comprehensive guidance and safety features, aiming to improve commuting experiences and safety in Metro Manila. The study aimed to develop an application that educates public commuters on safe travel by providing useful information, suggesting efficient routes, and offering safety measures. The significance of the study lies in its provision of vital commuting information, aiding parental monitoring for safety, ensuring children's well-being during travel, and offering insights for future researchers delving in this field. The project design includes features such as an emergency message button, Global Positioning System (GPS) tracking, budget planning assistance, detailed mapping, and user consent terms. This application was developed following the AGILE methodology. The project emphasizes problem recognition, user-friendly design, iterative development, testing, and review processes for optimal functionality and user experience. Evaluation involves panels of evaluators assessing the app's performance, followed by a final phase utilizing a Likert Scale for interpretation. The program was

found to perform effectively across all evaluated criteria—functional suitability, reliability, portability, usability, performance efficiency, security, compatibility, and maintainability—indicating its overall success in meeting user needs and operational requirements. To ensure comprehensive evaluation and success, it is recommended to involve a more diverse programmer cohort and prioritize these attributes to effectively meet user and operational requirements. Through these endeavors, the Pathfinders app seeks to alleviate traffic-related challenges and enhance safety for commuters and residents of Metro Manila.

Keywords: Commuters, GPS Tracking, Step-by-Step Procedures, Parental Monitoring, Fare Rates