

## ABSTRACT

### DESIGNING A PROTOTYPE FOR KARATE TOURNAMENTS MANAGEMENT SOFTWARE WITH DESIGN THINKING METHODOLOGY

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Karate competitions play a significant role in showcasing the abilities and skills of karate athletes. However, the manual process of managing contestants' data can be time-consuming and prone to errors. This research aims to design a desktop-based software prototype that streamlines the process of athletes and tournaments data management in karate competitions. The design methodology employed is Design Thinking, which emphasizes a deep understanding of user needs throughout the development process. The prototype focuses on a functional Frontend application, allowing users to interact with the application and access information about the participating athletes' statistics. The evaluation of the application will be conducted through moderated testing sessions using Black Box Testing and Usability Testing through System Usability Scale with a purposively sampled group of participants. This research results in a software prototype with 100% success rate in Black Box Testing and SUS score of 76%. This study contributes to the field of karate tournament management by streamlining the process of keeping and tracking athletes and tournaments data.

**Keywords:** *Application evaluation, desktop-based application, Design Thinking, karate competitions, karate tournament management.*