I. Introduction

E-ticketing is an online ticket sales system [1], E-ticketing system includes electronic tickets called e-tickets. The e-ticketing system has been widely used for various events, such as sports and music events [2] [3]. Event promoters often have a significant problem in terms of ticket security, such as scalpers. The cause of ticket duplication leads to unreadable and unregistered tickets in the database. With the problem stated earlier, this study explains the use of fingerprint authentication in electronic ticket sales. The recommended system has 3 stages.

The first stage is when the user chooses the ticket category, the user can only order a maximum of 2 tickets. Then, in the second stage the user does the payment and the users must exchange e-tickets into physical tickets in the form of bracelet at the location determined by the event promoter. In the third stage, users could only enter the show area after showing tickets in the form of a wristband which had previously been exchanged in on the spot exchange process. However in the second stage of exchanging the tickets, electronic tickets to bracelet still have weaknesses in the aspects of authenticity and fabrication, which means the data can be changed separately from the person himself, then the validity of the data will be well maintained [4]. Therefore this study will use biometric fingerprint [5], which can solve weaknesses to purchase the second ticket, specifically in the security aspect. To enter the event, its only access is the person who has bought the ticket and use their fingerprint. Therefore, biometric fingerprint is the best solution.