

ABSTRACT

The rapid advancement of technology has driven changes in transaction patterns within society, including in the micro, small, and medium enterprises (MSMEs) sector. Toko Piala Sahlanaja Temanggung still relies on manual ordering and orders via WhatsApp, which complicates order management—especially for varied custom trophy designs. This study aims to design and develop an Android-based e-commerce application that allows customers to place and customize trophy orders independently. The application development uses the Extreme Programming (XP) method, as it promotes early user involvement and adapts well to dynamic requirements. The development process includes planning, design using UML and wireframes, interface development with Flutter and Dart, and testing using Black-box and User Acceptance Test (UAT) methods. The test results show that all application features function as expected, and the level of user acceptance is considered good. With this application, the ordering process at Toko Piala Sahlanaja becomes more efficient, interactive, and well-managed.

Keywords: e-commerce, application, Flutter, Extreme programming, Black-box testing