

ABSTRACT

In 2020, Bogor Agricultural University (IPB) developed a new method to cultivate crabs more efficiently using an apartment system. This *vertical aquaculture technology*, known as *vertical crab house*, is the third innovation in mud crab farming after the natural method and horizontal system using ponds. Currently, the *vertical crab house* business still operates manually, all processes, from cultivation to crab sales, are done conventionally. Consumers who want to buy crabs must come directly to the location or contact the communicate to contact person, which limits the wider range of consumers. This research aims to develop an *Internet of Things* (IoT)-based dashboard system *frontend* and logistics management for *Vertical Crab House Aquatic*. The main objectives of this research to develop a *website* that can support the crab cultivation ecosystem by connecting cultivators, supply providers of cultivation needs, and consumers in one integrated platform. The development of the *frontend* uses Laravel and Bootstrap as a *framework*, and this research applies the *Extreme Programming* (XP) approach which consists of four main stages: *Planning, Design, Coding*, and *Testing*. The result of this research is a *front-end website* dashboard system that can support logistics management at *Vertical Crab House Aquatic*. The features developed cover various aspects of management for two main types of actors, which are *Super Admin* and *Supply Merchant*. The *Super Admin* has access to manage accounts, registrations, products, *view IoT* data, *orders*, and *blog* content. Meanwhile, *Supply Merchant* can manage products, *orders*, and store profiles. In *Blackbox testing*, all three iterations show 100% supports that no defects occur in a feature. results, indicating that there are no defects that occur in a feature. *Acceptance* testing shows a high level of satisfaction from each test on each actor with an average percentage above 90%, meaning that over 90% of the users' expectations and requirements were successfully met by the system. With this vertical crab house *website*, it is hoped that it can contribute to improving the process of distribution, marketing, and procurement of crab farming needs, as well as supporting the crab farming industry in Indonesia.

Keywords: *Vertical Crab House, Extreme Programming, Frontend, Laravel, Bootstrap*