

ABSTRACT

The Faculty of Science and Mathematics at Diponegoro University still implements a manual scholarship recommendation letter submission system that requires students to visit the faculty in person with physical documents. This manual system creates several problems such as inefficient paper usage, lack of transparency in letter status, and long time wastage since students must periodically check their submission progress. This research aims to develop a web-based application to digitalize the scholarship recommendation letter submission process using the scrum method. The developed application includes features for online letter submission, verification and outgoing letter creation by academic staff, multi-level outgoing letter validation involving academic supervisors up to the vice dean I, letter numbering by UPA, online application status monitoring, and commenting capability for document improvements. Development was conducted through four sprints with a duration of 10 working days per sprint. Each sprint implemented core scrum activities including sprint planning, daily meetings, sprint review, and sprint retrospective. The first sprint focused on building the basic functional flow for submitting scholarship recommendation letters digitally up to outgoing letter creation by academic staff. The second sprint focused on the multi-level approval feature up to the vice dean I's signature, UPA numbering, and students being able to download processed letters. Subsequently, the third sprint was used to build the letter submission status monitoring feature to track letter position. Then the fourth sprint focused on presenting the commenting feature in the scholarship recommendation letter submission process. Testing was conducted using black-box testing to ensure system functionality operated according to requirements based on the definition of done. Results show that the application successfully functions and operates according to established specifications and is expected to meet user needs.

Keywords: Scholarship Recommendation Letter, Scrum, Web App