## **ABSTRACT**

Alumni are important assets that need to be managed and empowered properly by schools. Effective management and empowerment of alumni can be achieved through an alumni management process. Therefore, the design and development of an alumni management system have become an urgent need for SMA Telkom Bandung to enhance interaction and communication with alumni and improve the efficiency of alumni management activities. This research aims to design and build a web and API for an alumni management system application using the Extreme Programming (XP) method. The XP method is chosen to address the challenges of rapidly changing requirements through iterative development. The application development process is divided into three iterative phases. The developed alumni management system application includes features for storing and processing alumni data, creating surveys, providing job vacancy information, and offering a communication space between the school and alumni as well as among alumni. The results of the User Acceptance Test indicate that the developed application functions well and meets the criteria of user needs and expectations. The implementation of this application is expected to improve the efficiency of alumni management at SMA Telkom Bandung, including enhancing the effectiveness of alumni data management and strengthening the interaction between the school and its alumni.

Keywords— alumni management system, API, extreme programming, user acceptance test, web