

## ABSTRACT

# BACKEND DEVELOPMENT OF A WEBSITE-BASED BADMINTON COURT RENTAL SYSTEM USING RAPID APPLICATION DEVELOPMENT METHOD (Case Study: GOR Purwawidjaya Banteran)

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*Badminton is one of the sports widely enjoyed by people from all walks of life. Besides having easily fulfilled playing requirements, it is quite simple to engage in even for recreational purposes. This aspect is leveraged by those interested in business, who create sports facilities providing badminton courts within their premises. The sports facility, known as GOR Purwawidjaya, located in the village of Banteran, is one such facility that offers badminton courts. GOR Purwawidjaya has a single manager responsible for maintaining the facility and handling court rentals. There are two rental systems at GOR Purwawidjaya: customers can either visit the location directly or rent via WhatsApp messages, with both methods requiring them to wait for information on schedule availability. A common issue faced by customers is their lack of knowledge about the latest schedules at GOR Purwawidjaya. Additionally, when they visit the location in person, they often have to endure significant wait times until a court becomes available. Therefore, the purpose of this research is to develop a backend badminton court rental system based on a website using the Rapid Application Development (RAD) methodology to address customer issues. After completing the backend system development, a system test is conducted using the White Box Testing method to examine the overall functionality, with the result indicating that the testing execution was successful at 100%. With this outcome, the backend system of the court rental website is ready to be integrated or implemented with the frontend interface.*

**Keywords:** *Badminton, Website, Rapid Application Development, Backend*