ABSTRACT

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IMPLEMENTATION OF WEB SCRAPING AS A TOOL IN DATA MANAGEMENT AT TELKOM INDONESIA

This report discusses the implementation of web scraping techniques as an automation solution for data management at Telkom Indonesia. The project was conducted in the Internet Product and Traffic Management division, aiming to improve operational efficiency and reduce errors caused by manual processes. In this professional work, the practitioner utilized technologies such as Python, Selenium, and BeautifulSoup to automate data collection from various web sources. The collected data was processed into information for network performance analysis. The results of this professional work show that web scraping can accelerate data collection and improve accuracy, thereby assisting the team in making strategic decisions related to traffic management. However, there were technical challenges, such as changes in website structures and server access restrictions, which were successfully overcome through script updates and the use of additional techniques like OCR. Through this project, the practitioner gained deep insights into the application of automation technology in the workplace, including big data management and the application of web scraping ethics. This experience supports professional development in the fields of information technology and data analytics.

Keywords*: web scraping, data management, automation, Python, data analysis, big data*