

CHAPTER V

RESULTS AND DISCUSSION

5.1 Conclusions

Based on the results of the research conducted, several conclusions can be drawn as follows:

1. A web-based supervision monitoring application has been successfully developed using the Laravel framework. This system facilitates both advisors and students in recording and digitalizing supervision histories systematically within a database, thereby minimizing the risk of physical document loss or damage.
2. The implementation of the Simple Additive Weighting (SAW) method within this system is capable of automatically generating accurate student activity rankings by applying weights to three primary criteria: attendance percentage (40% weight), supervision interval (30% weight), and log input time variance (30% weight). Based on the validation results, the system's computations proved to be 100% precise compared to manual calculations, where a student named Rina Santika achieved the highest rank with a final score of 0.960.
3. The evaluation of system functionality conducted through Black Box Testing across 18 testing scenarios yielded excellent results; all system features function validly and operate as expected without any errors detected across the Administrator, Advisor, or Student access privileges.

5.2 Recommendations

Based on the results of the research and system development, several recommendations can be considered for future enhancement of the application:

1. The system can be further developed by integrating real-time notification capabilities, such as via email or WhatsApp. This feature aims to ensure that advisors and students receive immediate, automated alerts whenever there are new schedule requests, revision notes, or supervision status updates.
2. The application can be refined by incorporating a feature to print or export supervision history reports into standard document formats (such as PDF). This utility will significantly assist students when they need to print their

supervision logbooks as a mandatory administrative requirement for thesis defense registration