

INFORMATION SYSTEM FOR REPORTING, PREVENTION, AND HANDLING OF SEXUAL VIOLENCE AMONG STUDENTS

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Abstract: The PPKS task force at Universitas Amikom Purwokerto has been established and is actively implementing various programs. However, complaints regarding cases of sexual violence are currently managed through WhatsApp, with limited guidance on the complaint procedures. As a result, many students are unaware of the PPKS task force or how to report incidents, creating obstacles for both the task force in identifying cases and for students seeking to file complaints. This study aims to provide students with an effective and accessible way to report incidents of sexual violence on campus. To develop the complaint information system, the Scrum methodology was used, involving team collaboration to easily adapt to changes throughout the development process. The resulting complaint information system for the prevention and handling of sexual violence has been successfully implemented and tested with students at Universitas Amikom Purwokerto. This system enables students to submit complaints seamlessly online. Testing results indicate that the system functions as intended and meets the expected outcomes.

Keywords: information system; PPKS; complaint; student; scrum

Abstrak: Satuan tugas PPKS Universitas Amikom Purwokerto sudah berjalan dan membuat program kerja, namun dalam proses pengaduan kasus kekerasan seksual saat ini hanya menggunakan whatsapp dan kurangnya penjelasan tentang prosedur pengaduan yang ada. Banyak mahasiswa yang belum mengetahui adanya satgas PPKS di kampus dan cara pengaduan kasus. Hal tersebut menjadi kendala bagi satuan tugas PPKS dalam mengetahui kasus yang ada dan mahasiswa saat ingin melakukan pengaduan kasus. Oleh karena itu, dibutuhkan sebuah sarana yang efektif dan mudah diakses bagi mahasiswa untuk melakukan pengaduan kasus apabila mahasiswa mengetahui tentang adanya kekerasan seksual di lingkungan kampus. Tujuan Penelitian adalah untuk membantu memudahkan mahasiswa dalam melakukan aduan tentang adanya kasus kekerasan seksual di lingkungan Universitas Amikom Purwokerto. Metode dalam pengembangan sistem adalah metode Scrum. Metode Scrum melibatkan keseluruhan tim yang ada di organisasi. Dengan adanya keterlibatan ini maka mudah dalam mengantisipasi perubahan yang terjadi selama pengembangan sistem. Sistem informasi pengaduan pencegahan dan penanganan tindak kekerasan seksual berhasil di terapkan dan diujikan kepada Mahasiswa Universitas Amikom Purwokerto. Dengan adanya sistem informasi pengaduan ini mahasiswa dapat dengan mudah dalam membuat aduan berbasis sistem. berdasarkan daftar uji yang dilakukan terhadap sistem yang dibuat maka dapat disimpulkan bahwa skenario yang diujikan sesuai dengan hasil yang diharapkan.

Kata kunci: sistem informasi; PPKS; pengaduan; mahasiswa; scrum



PENDAHULUAN

Sexual violence cases are undeniably occurring within educational institutions[1], with the highest incidence at the university level or on campuses[2]. Sexual violence encompasses behaviors or actions involving sexual activities, coercive practices, or attempts to engage in sexual activities, such as commenting or making unwelcome remarks[3][4]. In response, the Ministry of Education, Culture, Research, and Technology issued Regulation Number 30 of 2021, mandating the formation of Anti-Sexual Violence Task Forces (Satgas PPKS) to address and prevent sexual violence on campuses[5]. These task forces serve as the front line in creating a campus environment free from sexual violence[6].

The establishment of the PPKS Task Force has also been carried out by Universitas Amikom Purwokerto, and it was officially confirmed through a Rector's Decree. The task force has been active and has developed work programs, but the current system for reporting sexual violence cases relies solely on WhatsApp, and there is a lack of clear guidance on the reporting procedures. Many students are still unaware of the existence of the PPKS task force or how to report cases. This creates challenges for the task force in identifying cases and for students when they wish to make a report. Therefore, an effective and easily accessible platform is needed for students to report cases when they become aware of sexual violence on campus. Utilizing technological advancements in information systems would provide an effective means for reporting cases[7]. The information systems accessed are web-based and connected to systems owned by the students. So far, students have used the information system for their ac-

tivities, namely student.amikompurwokerto.ac.id where the scrum method is used in the development of the system.

The Scrum method is an iterative phase with the aim of developing innovative applications or services[8][9]. This method provides a framework for the Scrum methodology to flexibly control, develop, and manage software requirements[10]. The Scrum method involves the entire team of the organization [11]. This incorporation makes it easy to anticipate changes that occur during system development [12]. It also takes less time than other methods [13]. The Scrum model is also a flexible model that can be applied to any industry or project [14]. The aim of this research is to help students to file complaints about cases of sexual violence in the environment of Universitas Amikom Purwokerto.

A similar study was also conducted by [15] titled Sexual Violence Complaint Service System at Surabaya State University Based on Telegram Bot with Webhook Communication. The disadvantages of this system are that not all students have Telegram and the services are limited because it is bot-based. Another similar study was conducted by [16] titled Internet-Based Legal Complaint and Education Information System on Child and Women Abuse. This system is more focused on legal aid and is based on the waterfall method in the system development process. Research has also been conducted by [17] entitled HiCare: Mobile Based Sexual Violence Complaint Application. The disadvantage of this application is that students have to download and install the application, so not all students want to do this. Another study by [18] entitled Information System for Handling Violence Against Women and Children Based on Website. The disadvantage of this system is that

users must first create an account before they can use it. Research by [19] titled Designing Mobile Application "ProtectU" for Sexual Reporting in Andriod Studio Based University Environment. The disadvantage of this application is that students have to download and install the application, which not all students want to do.

METHOD

The methods of data collection in this study are interview method, documentation method and literature review. The interview is a popular method of gathering information in which specific information is elicited through questions and answers [20]. The interviews were conducted with the Prevention and Response to Sexual Violence Task Force (PPKS) team on campus. Literature review is a method of collecting data by studying and understanding theory from various references related to the research being conducted [21]. Documentation method is a method required in the creation of applications such as Standard Operating Procedures (SOP), documents about business processes already in progress, and other regulations [13]. The research phases are shown in Figure 1.

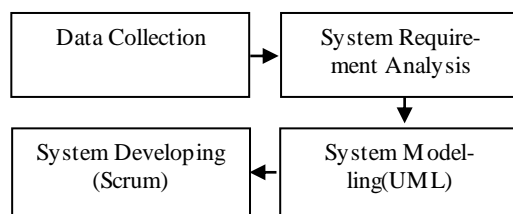


Figure 1. Research Stages

Figure 1 is the research phase with the following explanation.

1. Data Collection

interviews, documentation, and literature reviews

2. System Requirement Analysis

On the basis of the data collected, the next step is the analysis of the system's requirements.

3. System Modelling (UML)

In this phase, the system is modeled using the Unified Modeling Language (UML) with the help of use case diagrams. The use case diagram is shown in Figure 2.

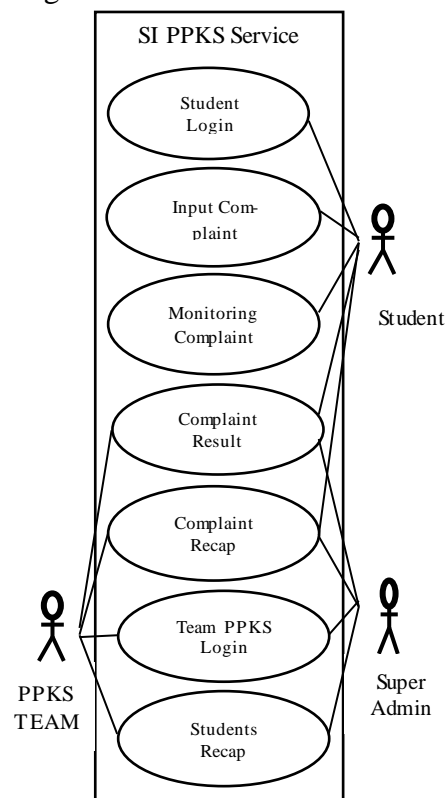


Figure 2. Use Case Diagram

The first step of the research is data collection, which is done through. Figure 2 is this area services information system has 3 categories of stakeholders or users, namely students, the PPKS team and the super admin. Students is system users who can report complaints of sexual violence, either as victims or witnesses. PPKS Team is users of the system

who are responsible for the administration of the PPKS information system. Super admin is responsible for the existing system, can enter Admin data and student data.

System Development (Scrum Model)

The method used in system development is the Scrum method. This method has the advantages of being flexible, easy to control, and thorough in the development process. Product backlog is the definition of the priorities that will be the focus of the sprint. Sprint planning meeting is assignment of tasks to the team in place before the start of the sprint. Daily stand up meeting is performed during the sprint to evaluate the work of the assigned team. Sprint review

is each team member explains the tasks that were completed during the sprint period. Sprint retrospective is each member evaluates his or her performance using the Scrum method [12].

RESULT AND DISCUSSION

System requirements analysis includes functional, an explanation of functional as follows. Functional requirements contain services that must be provided by the software. functional requirements depend on the user of the system, the type of software used, and the type of system used. functional requirements can be seen in Table 1.

Table 1. Functional Requirement

Functional Requirement	Description	Priority
User (Student)	Students report complaints	Must have
Admin	PPKS team that manages the system	Must have
Super Admin	IT department that develops the system	Must have
Report Complaint	Students can input reports of sexual harassment incidents	Required
Submit Suggestions	Students can submit suggestions related to complaints	Required
View Discussion	Students can view discussions related to their report	Required
Discussion Response	Students can ask questions related to their reports	Required
Discussion Outcome	Students can view the outcome of their reports	Required
Complaint Data Summary	PPKS team can generate a summary of complaints	Required
Data Management	IT department can manage the data	Required

Table 1 describes the functional requirements with their descriptions and prioritization.

1. Product backlog

The product backlog stage has four features in creating a sexual violence complaint information system. The product backlog results can be seen in the table

3.

Table 2. Product Backlog

Feature Description	Priority	Estimated Time (hours)
Feature related to system analysis and database design.	Very High Priority	72
Feature related to student complaints with sections for witnesses, victims, and complaint outcomes.	Very High Priority	72
Feature related to PPKS team management, including complaint summaries, outcomes, and data verification.	Very High Priority	96
Feature related to the super admin, including complaint summaries and outcomes.	Very High Priority	120

2. Sprint Planning Meeting

This phase is an elaboration of the product backlog, which consists of 3 existing sprints and must be considered according to the features in the product backlog. The product backlog created in Sprint 1 focuses on data collection, analysis of functional requirements, and creation of database designs. Sprint 2 focuses on the student complaint feature from the victim's and witnesses. Sprint 3 includes functions for managing the PPKS team.

3. Daily Stand Up Meeting

The IT team monitors the complaint information system to ensure that it runs smoothly, and the PPKS team monitors incoming complaints and handles existing complaints. It is ensured that the results of the complaints can be followed up and that the students receive the results according to the existing handling procedures.

4. Sprint Review

This section describes the part of the students and the PPKS team related to the users of the designed system. The stages of the system users are as follows. Students login in system, students log in to the system by entering

the NPM and password provided by Universitas Amikom Purwokerto.

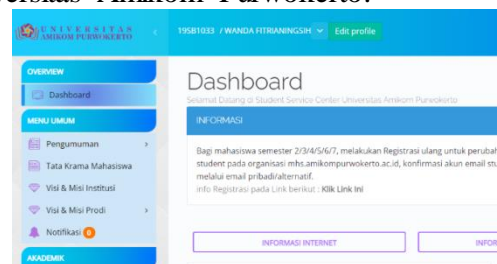


Figure 3. Dashboard Menu

After the student has successfully logged in, the screen as shown above will appear. Next choice complaint menu.

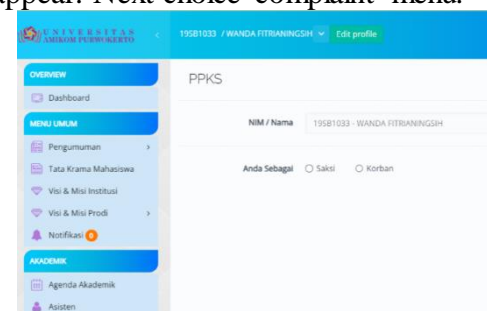


Figure 4. PPKS Complaint menu

Figure 7 is the display after students select the PPKS menu, then students select the "Witness" or "Victim" section. In addition, the PPKS team can manage complaints through the "PPKS Team"

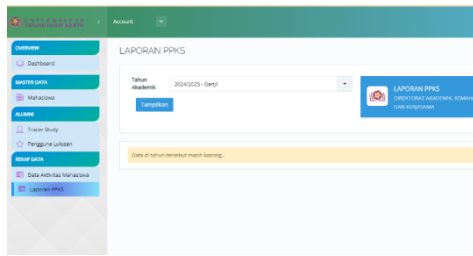


Figure 5. PPKS Menu

Figure 5 shows the PPKS report, where the administrator only needs to

select the academic year to see the sexual violence student complaint report.

1. *Sprint Retrospective*

Once the system is complete, the next step is to test the system, which is done twice. The first test was done by the PPKS team and students on the backend of the system. The test results are shown in Table 3.

Table 3. Testing List

Test List	Test Scenario	Expected Result	Test Result
PPKS Login Test	Click the login	Should log in as a student	Student successfully logged in
PPKS Menu Button Test	Click the PPKS menu button	Should display the PPKS menu	PPKS menu successfully
"Witness" Button Test	Click the "Witness" button	Should display the witness form	Witness form successfully
"Victim" Button Test	Click the "Victim" button	Should display the victim form	Victim form successfully
Save Complaint Button Test	Click the save complaint button	Should save the complaint	Complaint successfully saved
Suggestion Status Test	Click the suggestion status button	Should display the status of the suggestion	Suggestion status visible
Suggestion Outcome Test	Click the suggestion outcome button	Should display the outcome of the suggestion	Suggestion outcome visible
System Login Test (PPKS Team)	Click the admin login button (PPKS team)	Should log in as PPKS team	Admin successfully logged in
PPKS Report Button Test	Click the PPKS report button	Should display the PPKS report menu	PPKS report menu displayed on dashboard
Academic Year Selection Test	Click the select academic year	Should display the academic year	Academic year displayed
Print, Copy, PDF, and Excel Button Test	Click the print, copy, PDF, and Excel buttons	Should allow downloading of complaints	Successfully download and print complaint
Search Button Test	Click the search button	Should search and display complaints by student name	Data searched successfully displayed

CONCLUSION

The complaint information system for the prevention and handling of sexual violence has been successfully implemented and tested among students at Universitas Amikom Purwokerto. With this complaint information system, students can easily submit system-based complaints. From the list of tests conducted with the created system, it can be concluded that the tested scenario is in line with the expected results. Suggestions for further research include the development of a complaint system that allows students to communicate directly via live video, making it easier for the PPKS team to receive information about reported complaints. Complaints in the form of video calls in the system will be clearer and make it easier for the PPKS team to make decisions.

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BIBLIOGRAPHY

- [1] E. G. Simanjuntak and M. F. Isbah, ““The New Oasis’: Implementasi PERMENDIKBUD Tentang Pencegahan dan Penanganan Kekerasan Seksual di Perguruan Tinggi,” *J. Anal. Sociol.*, vol. 11, no. 2, pp. 537–555, 2022.
- [2] P. Saiba and R. Oktaviani, “Urgensi Pencegahan Dan Penanganan Kekerasan Seksual Di Uin Sunan Gunung Djati Bandung,” in *Students Conference of Social Science, Political Science, and Public Administration*, 2023, vol. 27, pp. 116–122.
- [3] E. Simanjuntak, “Restorative Justice dalam Penyelesaian Kasus Kekerasan Seksual Anak: Suatu Kajian Pengambilan Keputusan Etis,” *INTEGRITAS J. Teol.*, vol. 4, no. 1, pp. 116–126, 2022.
- [4] R. S. Sangalang, “Perlindungan Hukum Terhadap Korban Tindak Pidana Kekerasan Seksual dalam Lingkungan Pendidikan,” *J. Ilmu Huk. Tambun Bungai*, vol. 7, no. 2, pp. 176–192, 2022.
- [5] R. A. Gibran, M. A. Primananda, F. H. Syahir, M. B. Firdaus, and H. Prasetyo, “Optimalisasi Satgas PPKS UPN Veteran Jakarta Dalam Menciptakan Lingkungan Perguruan Tinggi yang Aman,” *J. Huk. dan Kewarganegaraan*, vol. 4, no. 12, 2024.
- [6] I. F. Edrisy, N. P. P. Dewi, N. W. E. Sumartini, and E. Cristiana, “Memerangi Kekerasan Seksual Dalam Sudut Pandang Perundang-Undangan,” *Satya Dharma J. Ilmu Huk.*, vol. 6, no. 2, pp. 141–160, 2023.
- [7] M. Syarif, “Melindungi integritas akademik dengan mengembangkan sistem informasi pengaduan pelanggaran di kalangan perguruan tinggi,” *J. Restikom Ris. Tek. Inform. dan Komput.*, vol. 5, no. 2, pp. 137–147, 2023.
- [8] J. Nagaria, L. Sadath, and S. Ahmed, “Agile Implementation- A milestone for Academics using Software Engineering Industry Practices,” in *Advances in Science and Engineering Technology International Conferences (ASET)*, 2019, no. March. doi: 10.1109/ICASET.2019.8714575.
- [9] M. Efniasari, A. Wantoro, and E. R.

- Susanto, “Pengembangan Sistem Informasi Pelayanan Kesehatan Berbasis Web Menggunakan Metode Scrum (Studi Kasus: Puskesmas Kisam Ilir),” *J. Teknol. dan Sist. Inf.*, vol. 3, no. 3, pp. 56–63, 2022.
- [10] F. Hayat, A. U. Rehman, K. S. Arif, K. Wahab, and M. Abbas, “The Influence of Agile Methodology (Scrum) on Software Project Management,” in *IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD)*, 2019, no. December, pp. 145–149. doi: 10.1109/SNPD.2019.8935813.
- [11] W. A. Prabowo and C. Wiguna, “Sistem Informasi UMKM Bengkel Berbasis Web Menggunakan Metode SCRUM,” *J. Media Inform. Budidarma*, vol. 5, no. 1, pp. 149–156, 2021, doi: 10.30865/mib.v5i1.2604.
- [12] A. Mustika, “Permodelan Sistem Informasi Penjualan Barang Menggunakan Metode Scrum,” *J. Data Sci. Inf. Syst.*, vol. 2, no. 1, pp. 1–8, 2024.
- [13] Warkim, M. H. Muslim, F. Harvianto, and S. Utama, “Penerapan Metode SCRUM dalam Pengembangan Sistem Informasi Layanan Kawasan,” *J. Tek. Inform. dan Sist. Inf.*, vol. 6, no. 2, pp. 365–378, 2020.
- [14] M. Rizky and Y. Sugiarti, “Penggunaan Metode Scrum Dalam Pengembangan Perangkat Lunak : Literature Review,” *J. Comput. Sci. an Eng.*, vol. 3, no. 1, pp. 41–48, 2022.
- [15] P. A. Safitri and A. Prapanca, “Sistem Layanan Pengaduan Kekerasan Seksual Berbasis Bot Telegram dengan Webhook Communication di Universitas Negeri Surabaya,” *J. Informatics Comput. Sci.*, vol. 05, no. 3, pp. 272–281, 2023.
- [16] S. Yusuf, M. I. Abas, S. Syahrial, and R. Lamusu, “Penerapan Model Unified Theory of Acceptance and Use of Technology (Utaut) Terhadap Penggunaan Sistem Informasi Akademik Universitas Muhammadiyah Gorontalo,” *J. Ilmu Komput.*, vol. 2, no. 2, p. 31, 2022, doi: 10.31314/juik.v2i2.1714.
- [17] Rizqullah, M. R. Z., & Utami, W. S. (2023). HiCare: Aplikasi Pengaduan Kekerasan Seksual berbasis Mobile. *Edumatic: Jurnal Pendidikan Informatika*, 7(2), 396-405.
- [18] Annisa, R., & Adharani, Y. (2023). Sistem Informasi Penanganan Kekerasan Terhadap Perempuan Dan Anak Berbasis Webstie (Studi Kasus Pimpinan Wilayah ‘Aisyiyah DKI Jakarta). *Just IT: Jurnal Sistem Informasi, Teknologi Informasi dan Komputer*, 14(1).
- [19] Cahyani, R. D., Maklin, M. R. A., Karenina, S. A., Rabbani, S. A., Sumawidjaya, A. I. H., & Setyadinsa, R. (2024). Perancangan Aplikasi Mobile “ProtectU” untuk Pelaporan Kekerasan Seksual di Lingkungan Universitas Berbasis Android Studio. *Informatik: Jurnal Ilmu Komputer*, 20(1), 16-27.
- [20] S. Hansen, “Investigasi Teknik Wawancara dalam Penelitian Kualitatif Manajemen Konstruksi,” *J. Teor. dan Terap. Bid. Rekayasa Sipil*, vol. 27, no. 3, pp. 283–294, 2020, doi: 10.5614/jts.2020.27.3.10.
- [21] M. N. Adlini, A. H. Dinda, S. Yulinda, O. Chotimah, and S. J. Merliyana, “Metode Penelitian Kualitatif Studi Pustaka,” *J. Pendidik. EDUMASPUL*, vol. 6, no. 1, pp. 974–980, 2022.