

Design of Tartibtar System In Pmmk Unit Department of Maritime

Nur Rahmani¹⁾, Zulyani²⁾, and Handro Okta Prianus³⁾

¹⁾Politeknik Negeri Bengkalis, Bengkalis, Indonesia

²⁾Politeknik Negeri Bengkalis, Bengkalis, Indonesia

³⁾Politeknik Negeri Bengkalis, Bengkalis, Indonesia

Abstract: The cadets of the Maritime Department of the State Polytechnic of Bengkalis as prospective shipping professional officers who are expected to have personality competencies that need to have good physical and mental conditions, so that all cadets are obliged to obey and comply the rules of maritime cadets. Currently the recording of cadet indiscipline points is still done manually by recording cadets' violation points and monitoring cadet data note in the violation book, therefore supervisors and PMMK members are often confused in finding cadets' personal and historical data, in addition to personal data reports and activity reports. cadets that should be submitted to Academic advisors and cadets' families are often reported late because it takes a long time. To assist the performance of the cadet moral and discipline building unit in handling problematic students, therefore we need an application that functions as an information system and decision support system that aims to facilitate the performance of PMMK in order to document data, monitor, and provide appropriate further action. The purpose of this research is to design a computerized system in the Tartibtar application for checking application that can accommodate information and present quickly, precisely, and accurately about the state of the cadet point record. This application is implemented properly and correctly and is expected to minimize the human error factor. Make it easy to control input and output data in presenting information about the credit status of cadet points so that it can be done quickly and can be accessed by cadets, parents, and campus parties in the maritime department. The application is a decision support system can assist related parties in the results of the implementation of the task of supervision and enforcement of student discipline quickly and precisely.

Keywords: e-taruna application, cadets, discipline

1. Introduction

Maritime cadets majoring in the State Polytechnic of Bengkalis as prospective shipping professional officers who are expected to have personality competencies need to have good physical and mental conditions, so that all cadets are obliged to obey and adhere to the rules of maritime cadets. The Taruna Rules, hereinafter referred to as TATIBTAR, is a written regulation governing the life of cadets both inside and outside the campus of the Maritime Department of State Polytechnic of Bengkalis.

TATIBTAR was created to provide guidance for cadets in behaving in and out of campus. and the purpose of establishing TATIBTAR is to instill a sense of discipline so that the maritime cadets of State Polytechnic of Bengkalis have loyalty, dedication and responsibility with the aim of producing shipping officers who have competence, personality, professional and managerial skills. The foundations of this TATIBTAR are: Religion, Pancasila, the 1945 Constitution, the State Polytechnic of Bengkalis Academic Regulations, and the Pledge of the Corps of Taruna. In addition to these values, other technical regulations are needed which serve as additional foundations, namely: Marching Line Regulations (PBB), Respect Regulations, Ceremonial Procedures, and Youth Ethics.

The current conditions that occur in the maritime department, most of the activities of recording indiscipline points are still done manually in the form of recording cadet violation points and at the same time monitoring cadet data stored in the violation pocket book of each cadet. PMMK and members of the cadet supervisor are confused in finding the personal and historical data of cadets, in addition to personal data reports and cadet activity reports that should be submitted to the guardian lecturer to report monthly reports to the academic section, the head of the study program and to the head of the department as well as to parents and guardians cadets are often late because it takes a long time. In order to support the performance of the PMMK unit in handling problematic cadets, an information system and decision support system is needed that aims to facilitate the performance of the PMMK in order to document data, monitor, and provide appropriate further actions.

So that the made that will be designed in this application as a decision supporter to produce a recommendation that helps related parties in carrying out the task of monitoring and enforcing cadet discipline quickly and accurately. Accelerate data processing processes, report generation, so that the shortcomings of the old system can be resolved. With a computerized system, it can avoid duplicate data. The information presented will be accurate and will be very helpful in terms of decision making. A computerized system can reduce errors that often occur due to human error or negligence.

The implementation of TATIBTAR through the E-Taruna application can later be felt the benefits and carried out by both parties, both from the user side, namely cadets and parents as well as the organizers, namely the maritime department of State Polytechnic of Bengkalis as a means of communication so that all those in the maritime department can be together. -Together build and create cadets to become prospective professional shipping officers who are expected to have personality competencies and need to have good physical and mental conditions.

2. Methods

2.1 Research Stages

The design of this cadet application was made to fulfill and complete the shortcomings that occurred in the field by PMMK implementers in regulating the discipline of cadets/cadets and was made to design a computerized system that was well and efficiently in processing cadet points credit recording data. Produce the Tatibtar. Application check that can add weight to the information presented quickly, precisely, and accurately in presenting information about the state of cadet points credit. Produce a data processing process in recording cadet points credit, with a computerized system that is implemented properly and correctly, it is expected to increase the weight of the information presented quickly, precisely, and accurately and be able to reduce the human error factor and make it easier to control input and output data in presentation. information about the credit status of the cadet points so that it can be done quickly.

The steps for making the e-cadet application to make it easier to understand it can be made a flow chart as shown in Figure 1



Figure 1. Research Flowchart

The study consisted of five stages starting at stage (1) Analysis of data and needs, this was carried out using observation methods and literature studies. Observations were made by following directly the activities of recording the points of non-discipline for each cadet who violated and made mistakes based on the TATIBTAR points table still manually and written on paper and then the PMMK coaches recapitulated in the TATIBTAR points book. In stage (2) Program system and design, this step is carried out starting with designing use case diagrams and system flow diagrams (3) System development, software architecture refers to the method of making software Prototype models and carrying out software construction using the PHP programming language in Laravel frameworks. (4) Performing system testing, it is hoped that the application will be built according to the needs of PMMK officers and majors. and lastly (5) Reports, reports are made as outputs of research funded by PNPB State Polytechnic of Bengkalis.

2.2 Research Model and Research Design

This study uses a prototype software architecture model for software development. To test the

effectiveness of the data that has been collected, it is then analyzed using a quantitative approach using SPSS tools. The following is the design of the e-cadet application that will be built:

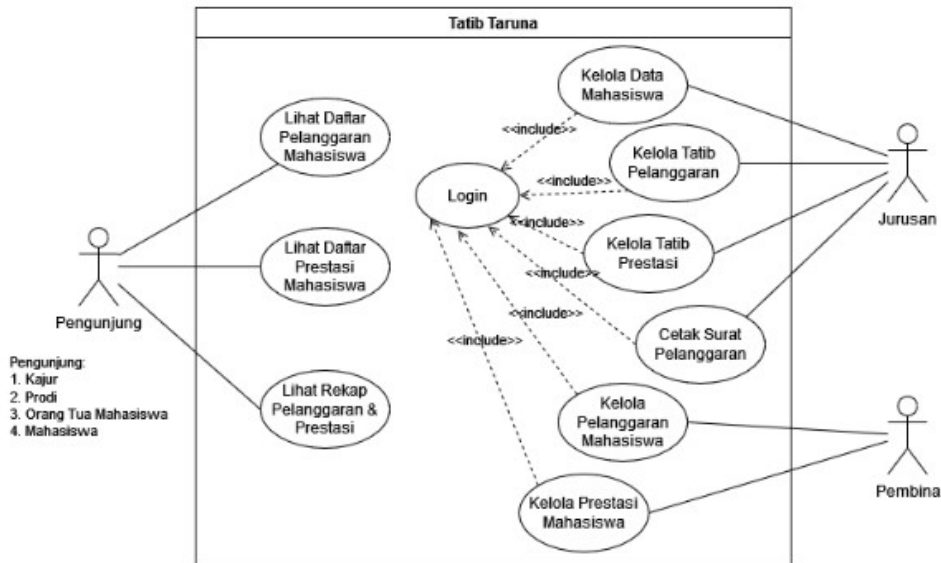


Figure 2. Diagram Use Case

Based on Figure 2, the use case diagram for this e-cadet application shows that there are 3 parties who have access to use this e-cadet application are the department, the PMMK supervisor and the visitor. The department through the admin can manage cadet data, manage violation rules, manage achievement rules, and manage violation letter prints. Then the PMMK supervisor can also manage cadet violations, and manage cadet achievements. And finally, visitors consisting of the head of the maritime department, the head of the study program, parents of cadets and cadets of the maritime department can use or access the e-cadets to see a list of cadet violations and achievements and a recap of cadets' violations and achievements.

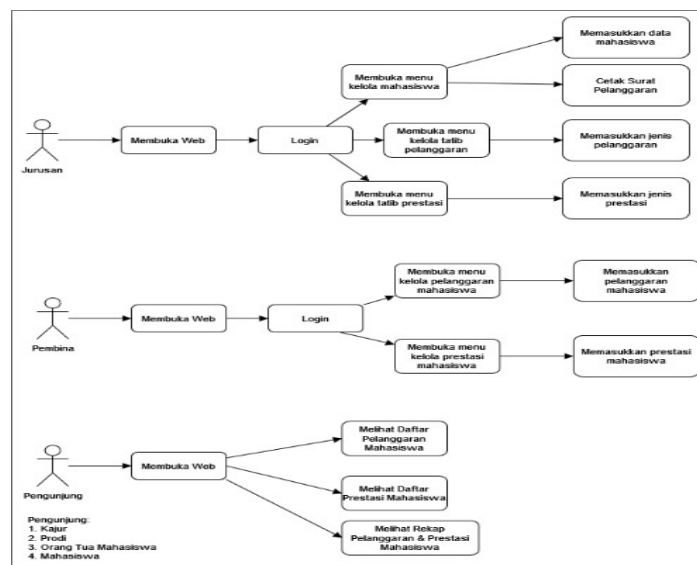


Figure 3. Diagram System Flow E-Taruna

In Figure 3, it is illustrated in more detail the flow diagram of the system flow in the e-cadet application. The department opens the website via google chrome at the link tatibtaruna.org then logs in that has been provided and can access and open the cadet management menu which contains a menu to enter cadet data,

print a violation letter, then the violation statute management menu contains to enter the type of violation , and the menu for managing achievement procedures which contains the types of achievements obtained by maritime cadets.

The PMMK parties, which is occupied by the cadet coaches opens the website via google chrome at the tatibtaruna.org link then logs in that has been provided and can access and open the cadets violation management menu which is used to input violations committed by cadets and can also open the management menu cadets' achievements to be able to input the achievements of cadets while being active cadets in the maritime department.

Finally, the visitors consist of the head of the maritime department, the head of the study program, parents of cadets and cadets of the maritime department who can see a list of cadet violations and achievements and a recap of cadets' violations and achievements.

3. Result and Discussion

The design of the e-cadet application is implemented in the PMMK Unit of the Maritime Department with the aim of (1) designing a computerized system that is good and efficient in processing cadet points credit recording data, (2) producing an e-cadet application that can increase the weight of the information presented quickly, precise, and accurate in presenting information about the condition of cadet points credit, (3) resulting in a data processing process in recording cadet points credit, with a computerized system that is implemented properly and correctly is expected to increase the weight of the information presented quickly, precisely, and accurately. accurate and able to minimize the human error factor and (4) make it easier to control input and output data in presenting information about the state of cadet point credit so that it can be done quickly. The contribution to this research is to help the effectiveness of recording violations and achievements of all cadets in the maritime department to support the discipline of the cadets.

Here are some views of the results of the implementation of the web-based e-cadet application.

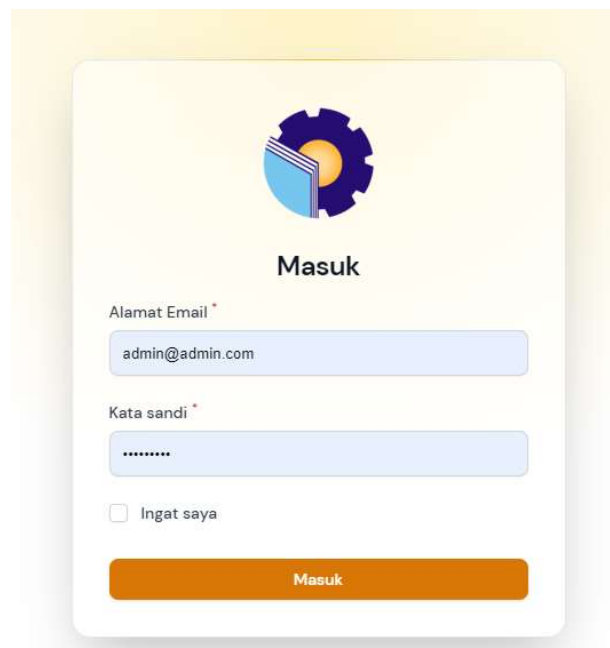


Figure 4. Homepage Display

Figure 4 shows the homepage that can be accessed by the department admin and PMMK to manage the entry of achievement and violation data in e-cadets by using the username and password access that the admin has.

NIM	NAMA	PELANGGARAN
5264037103	Gatra Vega Hutapea	Membuat kegaduhan saat inspeksi
9431175670	Nurul Laksita	Mengikuti, menjadi anggota organisasi terlarang di luar resimen tanpa izin Ketua Jurusan Kemaritiman Politeknik Negeri Bengkalis.
6171675713	Warji Wira Jailani S.Sos	Bersikap tidak hormat terhadap Dosen, Karyawan, Instruktur dan atasan
8815813779	Gangsa Prasetya	Hamil selama masa pendidikan.
6222318907	Gitang Naradi Pradana M.Pd	Bersikap tidak hormat terhadap Dosen, Karyawan, Instruktur dan atasan
2485719368	Zamira Suartini	Membuat kegaduhan saat inspeksi
1587616333	Uchita Gasti Namaga M.Pd	Meninggalkan kegiatan akademik tanpa izin.
5721221213	Galih Maman Ardianto S.Ked	Mengikuti, menjadi anggota organisasi terlarang di luar resimen tanpa izin Ketua Jurusan Kemaritiman Politeknik Negeri Bengkalis.

Figure 5. First Page Display

The first page display in figure 5 is a form of display on e-cadets that can be seen by visitors, including the head of the maritime department, the head of the study program, parents of the cadets and the cadets of the maritime department. The pointing party can only see this summary as information for them and as a correction material if there is incorrect data input.

Tambah data Pelanggaran

Mahasiswa * Pelanggaran

Pilih salah satu opsi Jenis Pelanggaran

Tambah data Simpan & tambah data lainnya Batal

Figure 6. Display of Addition of Violation / Achievement Data

Poin	Tanggal	Ubah	Hapus
30	06 Okt 2022 16:07	Ubah	Hapus
5	20 Sep 2022 14:48	Ubah	Hapus
10	20 Sep 2022 14:48	Ubah	Hapus
50	20 Sep 2022 14:48	Ubah	Hapus
10	20 Sep 2022 14:48	Ubah	Hapus
30	20 Sep 2022 14:48	Ubah	Hapus
20	20 Sep 2022 14:48	Ubah	Hapus
100	20 Sep 2022 14:48	Ubah	Hapus

Figure 7. Display of the Edit Menu Changes to Data that have been Inputted Violations/Achievements*

In figure 6 the admin of the department can carry out activities on this dashboard to add data on violations committed by each cadet with problems, add achievement data obtained by cadets in every academic and extracurricular activity.

Whereas in figure 7 the department admin can also correct the data that has been inputted with new correction notes if there are changes in the field.

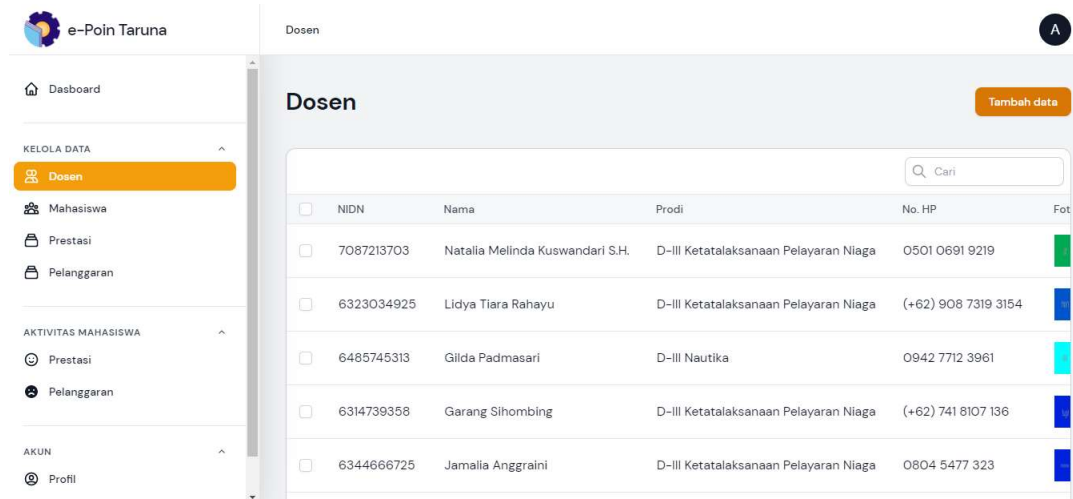


Figure 8. Menu Manage Data for Academic Advisor

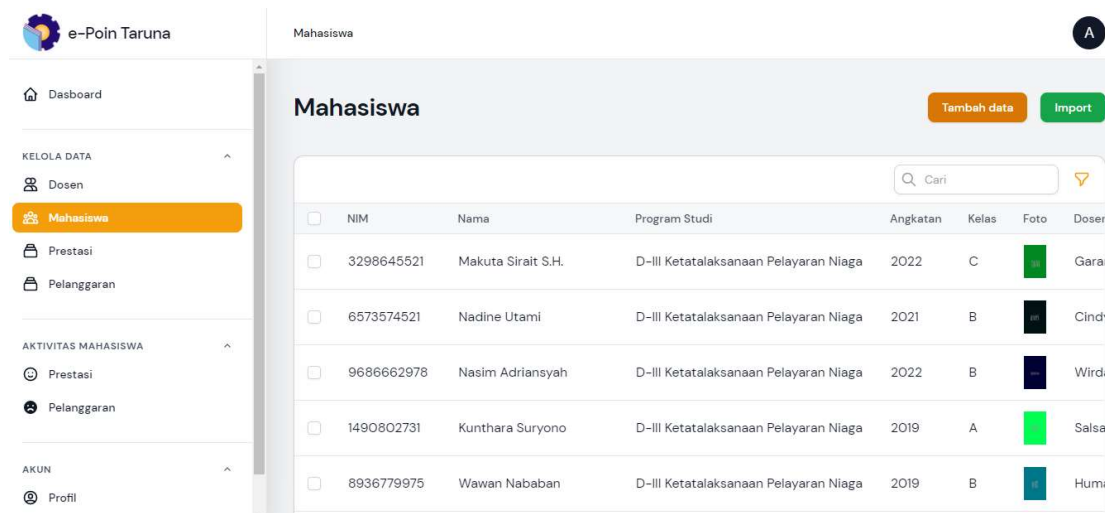


Figure 9. Menu Manage Data for Cadets

Figures 8 and 9 present the management menu that can be accessed adding data for academic advisor and data for all active cadets in the maritime department to be used to register cadets and apply discipline both in campus and out campus while being active cadets in the maritime department. The results of the recap will be submitted to all cadets for bleaching activities in accordance with the results of the recap obtained. Here the PMMK has the authority to provide lessons and sanctions in accordance with the statute book that has been compiled.

4. Conclusions

From the results of implementing the e-cadet application in the PMMK unit in the maritime department was recording cadets indiscipline points still done manually in the form of recording cadet violation points and simultaneously monitoring cadet data stored in the violation note book, therefore it is not uncommon for

coaches and PMMK members are confused in finding personal and historical data for cadets, besides personal data reports and reports on cadet activities that should be submitted to the academic advisor and head of the study program to the head of the department and parents / academic advisor of cadets are often late because it takes a long time. Currently, there are many changes that are felt, namely the implementation of the task of supervising and enforcing student discipline quickly and precisely. As well as the benefits felt from the users, namely cadets and parents as well as the organizers, namely the Maritime Department State Polytechnic of Bengkalis as a means of communication so that all those in the maritime department can jointly build and create cadets to become prospective shipping professional officers who are expected to have personality competencies that need to be in good physical and mental condition.

Acknowledgement

1. This study was supported and for financial support of this research under Contract No: 100/KT-PN/P3M-PB/2022, by a Research and Community Service the State Polytechnic of Bengkalis, Indonesia
2. The authors thank for Mr Fajri lecturer Information Technology for advice in writing and to design of this e-taruna application
3. The authors would like to thank the cadets and supervisors of the Maritime Department of the State Polytechnic of Bengkalis

Reference

- [1] Anita Diana dan Adityo Pambudi., "Rancang Bangun Sistem Informasi Kredit Poin Siswa Dengan Metodologi Berorientasi Obyek Studi Kasus : SMK Negeri 18 Jakarta", Jurnal TICOM, Vol.2 No.1 September, 2003.
- [2] Fatta, H. Al., 2007. Analisis & Perancangan Sistem Informasi. (Agnes Heni Triyuliana, Ed.) (1st ed.). Yogyakarta: Penerbit ANDI.
- [3] Huda, M., & Komputer, B., 2005. Membuat Aplikasi Database Dengan Java, MySQL, dan NetBeans. Jakarta: Elex Media Komputindo
- [4] Kadir, Abdul., 2003. Pengenalan Sistem Informasi. Yogyakarta: Andi.
- [5] Muhammad Saidi Rahman, Hoiriyah dan Lilis Anggraini, "Perancangan Aplikasi Kredit Poin Peserta Didik Terhadap Pelanggaran Peraturan Sekolah Menggunakan Sms Gateway", *Technologia*, Vol 11, No. 4, Oktober, 2020
- [6] Muliasih, Sri Inayah, 2004. Efektivitas sistem akumulasi kredit poin bukti pelanggaran terhadap kedisiplinan mematuhi tata tertib di kelas IV MI Nurul Salam. Other thesis, STAIN PEKALONGAN
- [7] Napitu, RCS, Ramadhani Indri A dan Firman, "Perancangan Sistem Absensi Berbasis Web pada Program Studi PTI UNIMUDA Sorong", *Jurnal Petisi*, Vol 1, No. 2, 2020.
- [8] Parlindungan Johannes, 2021. Sistem Monitoring Kredit Point Pelanggaran Siswa Berbasis Mobile (Studi Kasus: SMKS Yapim Taruna Mandau). Universitas Islam Riau
- [9] Patmi Kasih dan Yuni Lestari. Aplikasi Penghitung Point Pelanggaran Siswa Sebagai Sistem Pendukung Keputusan Bagi Badan Konseling Sekolah Dengan Simple Additive Weighting (Studi Kasus: SMK N 1 Tanah Grogot-Kaltim). *Nusantara of Engineering/Vol. 2/ No. 1/ISSN: 2355-6684*
- [10] Sibero, Alexander F.K. 2010. Dasar-dasar Visual Basic.NET. Yogyakarta. Mediakom
- [11] Tim Penyusun, 2016. Tata Tertib Taruna Jurusan Kemaritiman. Politeknik Negeri Bengkalis
- [12] Turban Efraim, R. Kelly Rainer Jr, Richard E. Potter, 2006. Introduction Information Technology 3 th Jakarta : Penerbit Salemba Infotek
- [13] Whitten, Jeffery L., Lonnie D. Bentley, Kevin C. Dittman, 2004. System Analysis and Design Methods. 6th ed. New York :McGraw – Hill