

PRACTICE WORK INFORMATION SYSTEM WEB-BASED INDRAGIRI ISLAMIC UNIVERSITY

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Abstract

Job Training (KP) is a student activity that is carried out in a related institution, to apply the knowledge gained and see first hand what the world of work is like and to gain experience and knowledge development from agencies or companies. The purpose of practical work is so that students have the ability professionally and are able to solve

problems in any field in the world of work, with the knowledge gained during college and in accordance with the major. The registration process for Job Training (KP) in civil engineering, industrial engineering, agribusiness, food technology, agro-technology and aquaculture study programs is still manual. Based on this, the authors made a Website-Based Job Training Information System at the Islamic University of Indragiri. To create a website application, it is built using the PHP programming language and the MySQL database. For system design using UML (Unified Modeling Language). From the results of the manufacture, it is hoped that this practical work information system can help students of civil engineering, industrial engineering, agribusiness, food technology, agro-technology and aquaculture study programs in carrying out practical work.

Keywords: Information Systems, Job Training, Website, UML

Introduction

From time to time, education has become an important sector that plays a role in the awakening of a nation and country. Education is a conscious and planned effort in realizing the learning process and learning atmosphere so that students actively develop their potential to have spiritual strength, religion, self-control, intelligence, personality, noble character, and have the skills needed by students, society, the nation and country (Suhery, Putra, & Jasmalinda, 2020; Abrahams & Reiss, 2012; Koirala, 2019). Education in the era of the industrial revolution 4.0 indeed requires students and lecturers to be proficient in using this information technology or commonly known as a cyber system, which can make learning no longer limited by space and time. It's just that the current problem is the lack of knowledge and skills possessed by students and the lecturers or teaching staff at the university are no exception (Rianto, Irfan, Syah, & Anwar, 2020; Rianto & Yunita, 2020; Sari, 2017). Indragiri Islamic University (UNISI) is a tertiary institution in the city of Tembilahan, Kab. Indragiri Hilir, which consists of 6 faculties and 15 study programs. The faculties are Faculty of Engineering and Computer Science (FTIK), Agriculture (FAPERTA), Faculty of Law, Faculty of Economics (FEKON), Faculty of Teacher Training and Science (FKIP), and Faculty of Islamic Studies (FIAI). Each faculty consists of 15 study programs, namely; Civil Engineering, Industrial Engineering, Information Systems, Agribusiness, Food Technology, Aquaculture, Agrotechnology, Law, Management, Accounting, English Education, Penjaskesrek, Science of Al-Quran and Tafsir, Sharia Economics, Management of Islamic Education.

Job Training (KP) is a student activity that is carried out in a related institution, to apply the knowledge gained and see first hand what the world of work is like and to gain experience and knowledge development from agencies or companies (Sani, 2014; Needham, 2014; Abrahams & Millar, 2008). With increasing technological advances today, it can affect change and competition in the workplace is getting higher (Jalinus, *et al.*, 2017; Yunita & Rianto, 2018). The purpose of practical work is so that students have the ability professionally and are able to solve problems in any field in the world of work, with the knowledge gained during college and in accordance with the college

major. This system is designed for or in order to facilitate students in every process carried out in this practical work activity (Chan & Shin, 2006; Ahmad *et al.*, 2021; Apriyanto, *et al.*, 2021).

Method

In this study using the PIECES method is a framework used to classify existing problems based on several categories to see how the level of effectiveness of this designed application which is a practical work system at the Islamic University of Indragiri, this method includes: Performance, Information, Economic, Control, Efficiency, Service (Widiyanto, 2018; Hendini, 2016). The Waterfall method is one of the software development models in the SDLC (System Development Life Cycle) model. UML (Unified Modeling Language) is a standard specification language used for documenting, specifying and building software. The system design using UML is as follows:

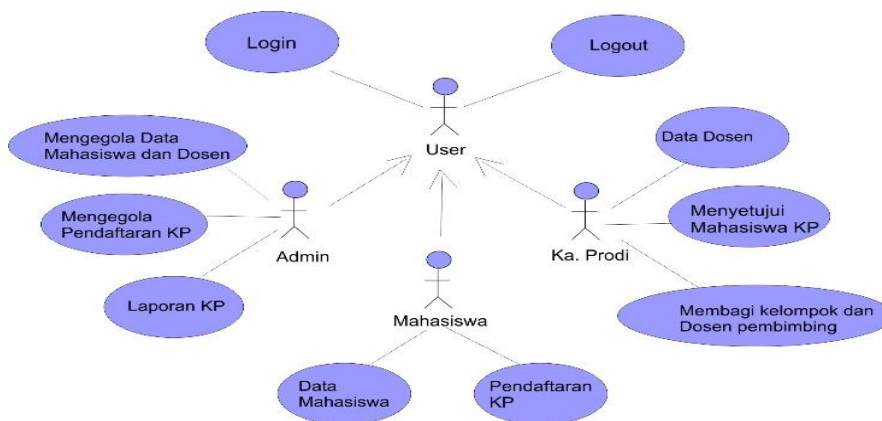


Figure 1. Use case diagram absensi

The use case diagram (UC) is one of the important diagrams used in providing an overview of the system requirements between actor and system interaction (Haviluddin, 2011; Fahmi, 2018). Use cases are used to find out what functions are in a system and who is entitled to use these functions.

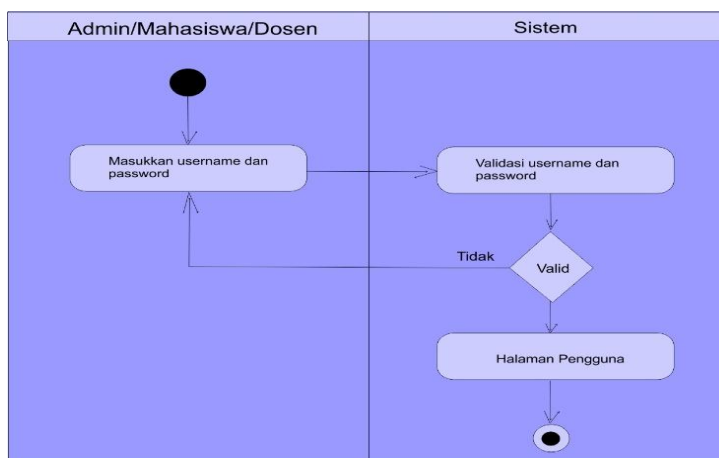


Figure 2. Activity Diagram Login User

Figure 2 shows the User Activity Diagram depicting the activities of the user / user on a system in carrying out the login process.

Results And Discussion

After analyzing the system using PIECES analysis and designing the system using UML, the results of the design of the information system for practical work at the Islamic University of Indragiri can be seen as shown below.



Figure 3. KP Login Page

Figure 3 is an initial display of this practice working system where before entering the main menu you must first enter this menu.



Figure 4. KP List page

Figure 4 is a display of the student registration form who will carry out practical work on this system which will fill in the personal data of the student.



Sistem Informasi Kerja Praktek UNIVERSITAS ISLAM INDRAGIRI	
Data Mahasiswa	
Nama	: Abay
Nim	: 123456789
Tempat Lahir	: Bandung
Tanggal Lahir	: 17 Agustus 1997
Jenis Kelamin	: Laki-laki
Alamat	: Bandung
Angkatan	: 2017
Program Studi	: Teknik Sipil
Perusahaan/Instansi	: PT. INDONESIA
Alamat	: Surabaya
Bidang Kajian/Judul	: Kontruksi Jembatan
Waktu Pelaksanaan	: 07 April 2020/sd

Figure 5. KP Student Data Display

Figure 5 above is the result of displaying student data who has filled out the registration form related to practical work activities.

Conclusion

Based on the research results, it can be concluded that with the practical work information system at the Islamic University of Indragiri, students can apply for practical work through the online practical work information system. The information system can manage data and practical work documents submitted by students.

References

- Abrahams, I., & Millar, R. (2008). Does practical work really work? A study of the effectiveness of practical work as a teaching and learning method in school science. *Int. J. Sci. Educ.*, 30(14), 1945–1969. doi: 10.1080/09500690701749305.
- Abrahams, I., & Reiss, M. J. (2012). Practical work: Its effectiveness in primary and secondary schools in England. *J. Res. Sci. Teach.*, 49(8), 1035–1055. doi: 10.1002/tea.21036.
- Ahmad *et al.*, (2021). Student Responses During Online Learning in the Covid-19 Pandemic Period Student Responses During Online Learning in the Covid - 19 Pandemic Period. *J. Phys. Conf. Ser.*, 1764(1), 012125. doi: 10.1088/1742-6596/1764/1/012125.
- Apriyanto, M., Partini., Mardesci, H., Syahrantau, G., & Yulianti. (2021). The Role of Farmers Readiness in the Sustainable Palm Oil Industry The Role of Farmers Readiness in t he Sustainable Palm Oil Industry. *J. Phys. Conf. Ser.*, 1764(1), 012211. doi: 10.1088/1742-6596/1764/1/012211.

- Chan, J. K. Y., & Shin, N. (2006). Students Perspective of Practical Work in Learning Sciences Via Distance Education. *Asian Assoc. Open Univ. J.*, 2(1), 1–10. doi: 10.1108/aaouj-02-01-2006-b001.
- Fahmi, H. (2018). Aplikasi Pembelajaran Unified Modeling Language Berbasis Computer Assisted Instruction. *Query*, 5341, 21–29.
- Haviluddin. (2011). Memahami Penggunaan UML (Unified Modelling Language). *Memahami Pengguna. UML (Unified Model. Lang.)*, 6(1), 1–15. [Online]. Available: <https://informatikamulawarman.files.wordpress.com/2011/10/01-jurnal-informatika-mulawarman-feb-2011.pdf>.
- Hendini, A. (2016). Pemodelan uml sistem informasi monitoring penjualan dan stok barang (Studi Kasus: Distro Zhezha Pontianak). *J. Khatulistiwa Inform.*, 4(2), 107–116. doi: 10.2135/cropsci1983.0011183x002300020002x.
- Jalinus, N., Arwizet., Nabawi, R. A., & Ambiyar. (2017). Improve Learning Outcomes of Students Through Implementation of The Collaborative Project-Based Learning Model in Thermodynamics. *Proceeding 1st Int. Conf. Educ. Innov.*, 559–564.
- Koirala, K. P. (2019). Effectiveness of Practical Work on Students' Achievement in Science at Secondary Level in Gorkha District Nepal. *J. Adv. Educ. Res.*, 4(4), 139–147. doi: 10.22606/jaer.2019.44001.
- Needham, R. (2014). The contribution of practical work to the science curriculum, *Sch. Sci. Rev.*, 95(352), 63–69.
- Rianto, B., Irfan, D., Syah, N., & Anwar, S. (2020). Development Of Interactive Multimedia Interactive Information Technology Learning Applications. *Solid State Technol.*, 63(5), 4172–4177.
- Rianto, B., & Yunita, F. (2020). Perkebunan kelapa (Studi Kasus : Parit 7 Sungai Raya Kecamatan Batang Tuaka Kabupaten Indragiri Hilir). *J. Intra Tech*, 4(1), 1–6.
- Sani, S. S. (2014). Teachers' Purposes and Practices in Implementing Practical Work at The Lower Secondary School Level. *Procedia - Social and Behavioral Sciences*, 116, 1016-1020.
- Sari, I. P. (2017). Implementasi Pembelajaran Berbasis E-Learning Menggunakan Claroline. *Res. Dev. J. Educ.*, 4(1), 75–87. doi: 10.30998/rdje.v4i1.2070.
- Suhery, S., Putra, T. J., & Jasmalinda, J. (2020). Sosialisasi Penggunaan Aplikasi Zoom Meeting Dan Google Classroom Pada Guru Di Sdn 17 Mata Air Padang Selatan. *J. Inov. Penelit.*, 1(3), 129–132. doi: 10.47492/jip.v1i3.90.
- Widiyanto, W. W. (2018). Analisa Metodologi Pengembangan Sistem Dengan Perbandingan Model Perangkat Lunak Sistem Informasi Kepegawaian Menggunakan Waterfall Development Model, Model Prototype, Dan Model Rapid Application Development (Rad). *J. Inf. Politek. Indonusa Surakarta ISSN*, 4(1), 34–40. [Online]. Available: <http://www.informa.poltekindonusa.ac.id/index.php/informa/article/view/34>.
- Yunita, F., & Rianto, B. (2018). Aplikasi Susun Gambar Pada TK Pertiwi Tembilahan. *J. Technopreneursh. Inf. Syst.*, 1(1), 39–43. doi: 10.36085/jtis.v1i2.29.