**WEB-BASED INTERNSHIP RECORDS**

**MONITORING SYSTEM**

An Undergraduate Thesis

Presented to the Faculty of the

College of Information and Communications Technology

**Sorsogon State University**

Bulan Campus

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Chapter 1

**INTRODUCTION**

This chapter introduces the context of the project together with the presentation of its purpose, main objectives, scope and delimitations that explains the importance and essentiality of the project.

**1.1 Project Context**

**The global emergence into the 21st century technological advancement truly made an impact to the security and data management of industrial training programs or internships. From the traditional tools made to monitor different data stored in massive educational institutions, the phenomenal growth happened in websites and internet-based services brought convenience to the implementation of internship (Green, 2022; Hasti, 2019). The convergence happened between the technology and academic institution should be progressive and be utilized with effectivity and efficiency to provide students the internship that establishes transparency and precision on the program’s mission.**

**In accordance to the Sorsogon State University Student’s Handbook that was comprehensively prepared by Dr. Pablito V. Marbella, the SSC Vice President for Academic Affairs, 1998-2000, the On-the-Job Training (OJT) Program is a series of planned activities in which students are sent to companies/industrial firms and other training agencies for actual job training as part of their course requirement. This program is undertaken to acquaint the students with the real work setting and prepare them for work in industry. It also stated the required number of hour that a student should finish each day which is eight hours per day until finishing the whole time allotted for the program depending on the curriculum being pursued by the student. The compliance of requisite is also explicitly discussed. Student Information Sheet, Parent’s Permit, Certificate of Registration, Medical Certificates, Police Clearance and etc. are some of the requirements that a student should comply to acquire an internship program.**

**The Industry Linkages and Development Office is responsible for the coordination and implementation of the On-The-Job Training program of the Sorsogon State University-Bulan Campus. To successfully apply the students for the program, the office requires the students to submit the prerequisites for the internship. The office is in charge of recommending companies and employers that comply with the requirements and operate in line with the students’ best interests. In most cases, students suggest their preferred companies and employers. After the students comply the requirements, the ILDO will now process the application of the interns and when approved, the students may now start their internship and they are required to submit narrative reports, daily time records and accomplishment reports.**

**The current practice of the Sorsogon State University- Bulan Campus in handling the internship of the students is quite effective but not efficient enough as the office practices semi-computerized system. Due to lack of required system features to mitigate the possible problems, the office may encounter uncontrollable delays on students’ requisites, manual managing of records and unaccompanied monitoring on students’ performances during the compulsory industrial attachment. Since accurate data is essential for each student's academic record, educational institutions must have a data management system in place for it to work properly (Nur, 2017).**

**It can be difficult and time-consuming for academic institutions and companies to manage and monitor internship records. It might be difficult to keep track of interns' progress, evaluate their work, and make sure they finish their degree programs on time, especially in large firms with lots of interns.** I**t was proven that the traditional paper-based system sets limitations on the capabilities that the management may exert** (He and Zhu, 2018). **Therefore, t**he **study suggests that an Internship Records Monitoring System (IRMS) could provide a more efficient and accurate means of managing internship records.**

**The existing manual system used to monitor OJT attendance and progress is vulnerable to fraud and tampering, which results in inconsistencies in the records. A hardware and software solution based on the internet of things (IOT) that monitors attendance and views data in real-time is required. By doing this, because the attendance system is secure, the frauds on attendances and records were also eradicated. Following a thorough evaluation of the system by stakeholders and developers, as well as a pilot test of the prototype, the system received 100% positive feedback and was found to function as intended.**

**The system created by Amora et al. [??] proved that integrating technology in manual monitoring system drastically improves the efficiency and security of the manual OJT monitoring system. That is why it is crucial to be receptive to developments that might help complete daily tasks more effectively.**

**This project, Web-based Internship Records Monitoring System, was created in an effort to address the aforementioned issues and enhance internship management. It is an online application system that aims to address issues with monitoring effectiveness, record-keeping and interactive web-based platform efficiency between students and office management. This project centralizes its purpose on monitoring students’ internship schedules and on-time submission of reports. Furthermore, the project will establish record-keeping feature for requirements to have a secured database to look onto.**

**The particular features will provide partitions on accessibility depending on the type of user who will be accessing the system. The system recognizes its users as students and the admin, where in students are permitted to view status, submit before, during and after internship requirements, and customize schedules. As for the access of the admin, they will have the full access of the system such as viewing, editing, making feedbacks, as well as evaluating student’s performance.**

**1.2 Purpose and Descriptions**

The purpose of this study is to create a web-based application system that has record-keeping, monitoring, and viewing features of internship evaluation. Through this, the students involved and the Industry Linkages and Development Office (ILDO) of Sorsogon State University-Bulan Campus will have the platform where they can ensure that the progress in the internship will be secured and monitored accordingly.

The System will provide accounts for both admin and interns to identify user accessing system's feature. Intern users will have limited access to the features in the system like viewing, calendar editing and system’s DTR login. When the system identifies the user as admin, then it will give the full access to the system. The project will provide monitoring feature that allows admin to monitor trainee progress, including training real-time logs, precise attendance, and performance evaluation. The system will provide feedback system, a feature that enables the admin to provide feedback and ratings on trainee’s performance and communicate with trainees in real time. Also, the system will provide document management, a feature that allows trainees to upload and store their requisites and supervisors have the access to them.

Unlike the current semi-computerized and manual monitoring method, the system offers new methods of monitoring to mitigate the possibilities for the interns to submit summarized, outdated, and unauthentic reports. The system will be a user-friendly platform that will make them active, productive, and monitored during training.

There has been an attempt similar to the present study but the project establishes innovated features to be more accessible, convenient, and interactive.

The study “Web-based Internship Records Monitoring System” are being developed to establish more convenient way of securing internship data, monitoring interns effectively and evaluating the result of their internship. This study is deemed significant to the following:

**Industry Linkages and Development Office (ILDO).** The Study will provide a system that will carry out an objective in thoroughly monitor the trainee’s qualification by providing features that will secure and track their data, monitor their training, and store their reports throughout the duration of the internship.

**Interns.** The study will provide user-friendly platform for processing their data required for the internship and other paper works for it. The system may also challenge their discipline and authenticity on their internship as the system utilizes features that make these challenges happen.

**Proponents**. The study will significantly contribute to their knowledge and skills in developing beneficial systems.

**Future Researchers**. The study will serve as their guide for future innovation of studies related to this project.

**1.3 Objectives of the Study**

**This study delved into the development of Web-based Internship Records Monitoring System as a tool to keep and track the requirements and aid the inefficient monitoring system throughout the internship of the trainees, with the following specific objectives:**

1. **Determine the needed information and system requirement related to monitoring and evaluation system that addresses its development and management to acquire the efficient record-keeping and monitoring of the trainees’ internship.**

**1.1. Interns Pre-requisite Requirements**

**1.2. User Requirements**

**1.3. Enrollment Module**

**1.4. Interns’ Schedule**

**1.5. Daily Time Record**

**1.6. Interns’ Activity Reports**

**1.7. Evaluation Results**

1. **Develop and design the system solution based on the identified requirements not limited to the following features:**

**2.1 Internship Records Repository Management**

**2.1.1 Intern’s Report Submission Bin**

**2.2 Internship Monitoring Management**

**2.2.1 Internship Calendar System**

**2.2.2 Time-in and Time-out Feature**

**2.2.3 Progress Monitoring**

**2.2.4 Feedback System**

**2.3 Announcement Section**

**2.4 Evaluation Portal**

**2.4.1 Interns’ Assessment Viewing**

1. The Software Product Quality Model (ISO/IEC 25010) will be utilized to test and evaluate the proposed project, in terms of:

3.1. Functional Suitability;

3.2. Performance Efficiency;

3.3. Compatibility;

3.4. Usability;

3.5. Reliability;

3.6. Security;

3.7. Maintainability; and

3.8. Portability of the System

**Scope and Limitations of the Study**

This study focuses on assisting the Industry Linkages and Development Office and Sorsogon State University - Bulan Campus's interns to efficiently execute profiling and effectively monitor intern's performance and provide features for evaluation. The system will serve as a daily time recorder for the interns, data storing and checking day-to-day narrative reports, month-end, and terminal reports which will be monitored by the Industry Linkages and Development Office (ILDO). The system will also serve as a portfolio for keeping intern's files, like application requirements, time records, reports, and documentations. The system will also provide evaluation features in order to be a medium of transparency on the results of the program involved by the interns.

To protect and preserve intern’s data, the system will act as a data storage for the information that the interns will submit. By this, the data will be kept and can be easily track if needed to be disclosed for purposes and will secures it integrity. Both students and admin will be having an account to be used in the system and to start the storing of the requirements, the interns are required to submit the all the requirements for internship to determine their eligibility for the program.

The monitoring feature that the system offers will establish functions such as daily time record. Specifically, introducing the time-in and time-out feature for the system and the monitoring on the required documents that are required to be submitted daily, weekly, and after the completion of the program.

For an organized and neat monitoring interface, the system would like to utilize a calendar-based interface for the monitoring of daily logs and submission of the reports needed in different dates. Through this system interface, the daily logs will be organized, resulting to a quick identification of time records. The submission of the reports can easily be determined as the calendar organizes its bin per calendar cells. Moreover, tracking this submitted documents will be neat and simple.

As for the evaluation feature, the systems will act as a portal to the interns where they can view the result of their performance in the internship that they had.

The system will only be known as a web application that has these additional particulars such as feedback feature. This feature will only be available on the users that can access the system, specifically the interns and the office.

The system delimits the interns from accessing certain features of the system which are intended only to be accessed by the admin like in **changing the applied schedules in the system without prior notice and accessing other intern’s profile.** The linked companies or agencies will have no access to the system as they have their own methods on monitoring the interns. The system will only be utilized in Sorsogon State University-Bulan Campus but delimit its use from non-interns and not involved faculties. That being said, the other University branches will also have no access to the system.

Chapter 2

**REVIEW OF RELATED SYSTEMS**

The papers provided in this chapter are both related systems and literatures that are correlated on the presented objectives of the study. The review on information requirements, features of the system and usability are also being addressed.

The design and implementation of web-based internship information system at vocational school made by Yannuar et al. [1] where in a web-based internship information system— the website’s content, medical data, student personal data, participation data, user data, competencies, identities, viewing charts, and database backups may all be managed by administrators by logging in. Students participating in placements can enter daily or weekly activities into the portal, view guidance, view placement status, view information, and view placement scores by logging in first. University faculty, known as supervisors in this system, has functions to manage and monitor placements, manage instructions and values, and view information about placements after logging in.

The system of [1] which has the management of gathered data is related to the current study which will require logging in to determine the user and assign proposed access. The proposed study will require the same data in order to provide precise and accurate information that may help the internship program to attain high effectivity on information transparency.

The study of Moeinzadeh et al. [2] states that one of the methods for evaluation that helps instructors in departments and students in self-regulated learning demonstrate their skills and progress through time is the ePortfolio. Video, audio, artwork, or photography are all acceptable forms of strong evidence for learning and success. While some ePortfolio are as straightforward as a logbook, others provide a broad, in-depth perspective over a considerable amount of time. The ePortfolio can be used to choose and validate competencies, increase thinking skills and learning techniques, assess (with the goal of formative and summative assessment), highlight the current successes and academic advancement of learners, and develop self-evaluation abilities.

The study [2] provides significant feature to the current study that strengthens the effectivity of data gathering and storing of the gathered data needed in the internship program. The system will provide a record-keeping function for documentation, reports, daily logs, and data backups of each intern for retrieval if needed. Though, the system will not be accepting video and audio type of documentation.

The Student Internship Portal (SIP) of Alsolais, et al. [3] is a web-based solution for managing and arranging internship programs in educational institutions involving students and staff. It features a web-based placement information system, so students can monitor the institution's evaluations of their growth. Also, it was created to give students, teachers, and the institution a means of interactive communication whenever and wherever it is required.

The relevance of the system [3] in the current study is its purpose to give interactive means of communication to address the required information needed to eligibly start the internship programs. Through notification and feedback features that the current system will develop, it is expected that the purpose will be fulfilled.

To ensure the information and data stored are protected, the system Student Industrial Internship Web Portal (SIIU) [4] emphasizes security features before users can access the system. Users are required to change the password during their first time login. Furthermore, each type of user only can access the restricted system functions and at certain period of time in order to ensure security of the data and the system itself. Coordinator will grant the access for each user according to the UiTM academic calendar.

The study [4] is relevant to the present study given that both involve setting up an account, signing in, and updating the password to make sure that only authorized users may access the system's data. Furthermore, restrictions on the accessibility of interns to certain features will be established to recognize the user’s role.

In 2019, A study entitled “Web-Based Internship Information System” [5] was established by Hasti, Lesari, and Gustiana. The aim of this study is to provide solutions for all issues that arise at each stage of the internship process, including registration, choosing an internship location, selecting a supervisor, submitting an internship report, and evaluation of internship reports through creating a web-based internship system. It compose of processes on internship registering, activating logins, group share of internship, and supervisor share of internship, uploading internship reports and internship assessments.

The study [5] is similar to the current study as it shows identical processing features and similarities in the purpose of the development of the system. The studies are both web-based system intended to minimize the current errors on the internship processes.

The Framework of University Internship Information System with Web-Based Design Analysis that was developed by Pratama, Jou, and Silitonga [6], contains different primary functions depending on the user’s roles, namely, Internship Coordinator, Lecturer, and the Students. Approving internship registration and exam scheduling are the primary function of Internship Coordinator. Students have the function of submitting internship counseling book, and uploading reports and registration for internship exam. Lastly, the lecturer publishes announcements and responsible for grading students. The function’s main goal is to provide role-oriented features that leads to an organized and neat flow of information in the system.

The features of the proposed system have similarities to the system [6]. The proposed system will be utilizing same features such in uploading of reports, control over announcements, and internship approval. Due to the fact that interns may have various working schedules, the system intends to develop a working time scheduling feature to be edited in the internship calendar in which the students have the authority to this function but should have supervision from the internship coordinator. This feature may be similar to the exam scheduling mentioned in the related system but has different purpose. The proposed system differs on the number of user’s roles and the system will just establish student and internship coordinator user roles only. Furthermore, exam related features that was developed in the related system will not be covered in the current system.

According to a study conducted by Del Rosario and Dela Cruz [7] to determine if the developed system is efficient and functional, trials were conducted utilizing test scenarios, test cases, and comparison tables. The developed system was evaluated using a survey questionnaire based on ISO 25010 software quality model for Product Quality. It obtained an overall mean of 4.32 with a standard deviation value of 0.666. This validates that the objectives of the study were met and achieved. Moreover, the system was able to reduce the cost and time spent on the previous process, which proves that it successfully integrated lean management principles into its design.

The study [7] is relevant to the present study because of the model used which is the ISO software quality model for product quality. As part of the present study’s evaluation tool, ISO model was also used to further explain a specific functions quality making it an additional asset to the system. The above study also states that there were trials conducted to an efficient and functional system which is crucial to further development of the system.

The Development of Internship Monitoring and Supervising Web-Based System by Afiza et.al [8] states that before online monitoring system is developed, a full understanding of the current workflow is required. Roles of the coordinator and students are identified based on the previous practice which has been conducted manually. Hence from this information, the flow of the activity is outlined to make sure all the procedures are covered by this system. System Development Life Cycle (SDLC) is used in the development of this system. Phase (1) Planning, (2) Analysis, (3) Design, (4) Implementation, and (5) Support and Maintenance measures through Waterfall model as a system development methodology. XAMPapplication is used to setup local-host server and HeidiSQL is used for database applications. Meanwhile, the programming tools used are Adobe Dreamweaver and PHP language.

The study [8] relates to the current study in terms of the system’s phases as well as the programming tools which will be applied in fully developing the system. The difference of the current study to the study [8] is the programming language that will be utilized in developing the current system. Python programming language will be used by the proponents.

In the study of Mia, Nath, Zahid, and Hoque (2020), internship industrial placement has been addressed as the company’s availability is one of the problem that the interns encounters. They designed a feature that allows a company to customize their requirements that may fit or compatible to the intern’s aptitude. The students have now the previlege to choose the company that they desire based on their interest while maintaining the standard that a certain company requires. Through these functions, it lessens the inconviniency selecting preferred companies without knowing the desired internship program under the institution.

The system of [??] shown similarities in this feature as the current system is working on developing section for announcement pages which will contain Company Recommendation. The only difference between the two system is that the current system will not include the privilege of the company’s customization of requirement. The system will just provide company information given by the adminitrator or internship coordinator.

The paper of Kusumawardhani (2022) presented an intervention for the Human Resource (HR) Department in PT Petrokimia Gresik’s decreasing quality of On-the-Job Training due to Work From Home Regulation during the COVID-19 era. After identifying the root causes of the problem, they designed digital-based OJT management applications that has these three main features, namely, lesson plan, daily activities monitoring system, and periodic competency achievement evaluation. Features like, user roles were defined and concepts on employee scheduling, lesson plan, daily report, placement, quiz, employee assessment and activity, as well as stories was prepared. An increase of 47.7% in user satisfaction was reached after the implementation of the system with zero complaints.

The system of Kusumawardhani is similar to the current project in terms of features of daily activities monitoring system and periodic competency achievement evaluation. The current system will be utilizing daily monitoring system with specific submissions bin properties for more convenient record-keeping and easy searching for specific inputs. Both systems have evaluation function to the performance of the interns throughout the internship. However, the current system does not include a feature on the development of lesson plan.

Due to the traditional methods of email and phone conversations being used for the supervision process of the School of Computing, College of Arts and Science, Universiti Utara Malaysia (UUM), the practicum program suffers from insufficient communication and poor administration. In the system devoloped by Hui and Yusof (2022) in their study “Design and Development of UUM Internship Monitoring System: A Web-based Application for Monitoring Practicum Students,” they presented an intervention to the aformentioned problem. The functions exhibited in this system are similar to the other related studies sited in the current study but some of the features that the system presented is the setting up of task due dates under supervisor control and uses Gantt Chart as the presentation of tasks that the students should accomplish.

Similarly, the current study also have this feature but the system offers automation in formulating task due dates which will depend on the student’s working hour that will affect the attributes of its own internship calendar. The current system will not be utilizing the Gantt Chart to monitor the interns. Instead, the system will provide a Daily Time Record-like function.

On 2017, Almarinez conducted a study about the Assessment of Online OJT Performance Monitoring which the results of the system’s evaluation are based on the ISO 9126 standard. It showed that the efficiency criteria had the highest ranking, followed by portability and dependability, functionality, and finally, maintainability and usability of the system. The online OJT performance website met its functionality needs by employing a contemporary method of operation and efficient use of the time of the students, advisers, and supervisors (Almarinez J., 2017).

The study above is similar to the present study in terms of the concept used to show the efficiency of the criteria ranking. However, the present study variables like portability, dependability, and maintainability delimits this scope.

Hamutoğlu, N. B., Güngören, Ö. C., Duman, İ., Horzum, M. B., Kıyıcı, M., and Akgün, Ö. E. (2019) states in their study that the Usability Scale will provide significant findings on usability in terms of access and the interface of the system. Moreover, satisfaction is also related to internal constructs, and measuring this construct would emerge some hints for system developers, trainers, administrators, teachers, and teacher educators. Scales developed for measuring those variables all have different scopes and structures, but they can be used together as parts of a measurement model for considering obtained results with a holistic perspective about students, teachers, system developers, and administrators. Based on this, measuring the acceptance of students toward systems could contribute to teachers and system developers, and identifying the usability of systems may give a chance to improve the interface of the systems as well.

The above study is relevant to the present study in terms of the evaluation tool utilization, the USE Questionnaire or the Usefulness, Satisfaction, and Ease of use of the study that is beneficial to the client and the students as it gives a user-friendly approach and interface. Since this study will focus on the usefulness, satisfaction, and ease of use of the system in the interns and the Industry Linkages and Development Office in terms of their process, monitoring, and tracking of trainees, the above study proves relevance as it focuses on the scope of the satisfaction as it gives a holistic perspective of students, teachers, system developers, and administrators that will be valuable to the development of the study.

A study conducted by Sutikno, Baedhowi, Siswandari, Siswandari, and Roemintoyo, (2020) mentioned that the USE questionnaire consists of aspects of Usefulness, Ease of Use, Ease of Learning, and Satisfaction in the result of the study was beneficial as it indicates that user satisfaction in using the system which is in a good category and for assisting in terms of observing empirical data in the field and aiming to be more convincing in making judgments about the process of the policy used to complement survey methods. User satisfaction in using the proposed system has met the standards of effectiveness, monitoring management, and following the needs of the industrial revolution in the use of innovative technology.

In the study above, it is mentioned that the use of the USE Questionnaire is a crucial part of determining a large-scale user perspective and judgments about the process of the system. The study shows how it focuses on the standards of effectiveness, monitoring management, and the use of innovative technology which is relevant to the goal of this study.

In the study entited “User-Centered Software Design: User Interface Redesign for Blockly-Electron, Artificial Intelligence Educational Software for Primary and Secondary Schools,” the usability of the system will be evaluated using the USE scale. In the linear relationship between ease of learning, ease of use, usefulness, and satisfaction, with ease of use as a mediator variable, five design deliverables and an attribution model were developed. This is significantly different from the findings of previous regression analyses for the USE scale (Chenghong & Luo, Guang & Li, Lujia & Liang, Yilin & Li, Kang & Jiang, Tan & Xiong, Qiang, 2023).

The above-mentioned study is relevant to the current study because it mainly focuses on the relationship between variables as the USE scale being the primary method. This is because findings will be efficient and will provide enough approaches as it is separated into different variables and will be easier to filter out.

Chapter 3

**TECHNICAL BACKGROUND**

This chapter contains a discussion of the project’s components. The specifications of both hardware and software requirements for the developer and for the users are being introduced, as well as the technical terms are comprehensively presented.

**3.1 System’s Development Specification**

The specifications for the system's hardware, software, and services are presented in this section. The proponents will utilize these components to develop the project.

**3.1.1 Hardware Specification**

**This section exhibits the hardware requirement’s specifications and its underlying functionalities that will be used by the proponents in developing the project.**

Table 3.1.1

Hardware Specification (Developer Side)

|  |  |
| --- | --- |
| **PARTICULAR** | **RECOMMENDED SPECIFICATION** |
| **Processor** | **Intel(R) Core(TM) i3-7100U 2.40 GHZ** |
| **Memory** | **16 GB RAM** |
| **Graphics Card** | **Intel(R) HD Graphics 620** |

Table 3.1.1 conveys the hardware requirements used by the project's proponents in constructing the project. The proponents used Intel(R) Core(TM) i3-7100U with 2.40 Gigahertz clock speed with 16 GB RAM and built-in Intel(R) HD Graphics 620. The hardware used in developing the system should be sufficient enough to handle varied tasks and can be loaded with different software. For the system's proponents to have a smooth development, it must be able to function effectively, with high performance and good quality. To provide the greatest and most effective performance required in creating the web-based internship records monitoring and evaluation system, the aforementioned parameters were more than adequate.

**3.1.2 Software Specification**

**This section provides the software requirements that the proponents will be utilized in developing the system. This section covers its underlying functionality and purposes in the study.**

**Table 3.1.2**

**System Software Requirements**

|  |  |
| --- | --- |
| **Particular** | **Recommended Specifications** |
| **Operating System** | **Windows 10 Pro 64-bit (10.0, Build 19045)** |
| **Browser** | **Google Chrome** |
| **Integrated Development Environment** | **PyCharm Community Edition 2022.3.3** |
| **Database** | **MySQL** |
| **Wireframe Design** | **Figma 116.7.6.0** |
|  |  |

**Table 3.1.2 outlines the software and its requirements to be used to create the suggested project. The system will be created using the Google Chrome web browser and the Windows 10 operating system. The Integrated Development Environment (IDE) and database that will be utilized in the system's backend, respectively, were PyCharm and MySQL. Figma will be used by the proponents to create wireframes. The proponents will employ various apps that they are accustomed to, which will allow them to enhance their expertise. It will make the project's development simpler, more effective, and quicker. To experience the updated features of the program and to ensure that there is a large enough user base to support them, the proponents will also make sure to utilize the current versions of the software.**

**3.2 User’s System Specification Requirements**

This section provided the users' systems’ approximate minimum and recommended hardware and software specifications. It is essential to identify their requirements so that the system can be used in the appropriate setting.

Table 3.2.1

Hardware and Software Specification Requirements

|  |  |  |
| --- | --- | --- |
| **COMPONENT** | **MINIMUM** | **RECOMMENDED** |
| **Processor** | **Dual Core** | **Intel core i3 or higher**  **AMD a4 or higher** |
| **Memory** | **2.00 GB RAM** | **4.00 GB RAM or higher** |
| **Hard Disk**  **Internet Connection**  **Peripherals** | **120GB**  **1 Mbps**  **Monitor, Mouse, Keyboard** | **120 GB or higher**  **2 Mbps or higher**  **Monitor, Mouse, Keyboard** |
| **Operating Systems**  **Browser** | **Windows 10**  **Google Chrome** | **Windows 7 or newer**  **Google Chrome** |

Table 3.2.1 shows the minimal and recommended user hardware and software requirements. The user of the system requires a computer with at least a dual-core processor, 2.00 gigabytes of RAM, a 120GB hard drive, a 1 Mbps internet connection, and all required accessories. To utilize the system with excellent quality and performance, it was necessary to have at least the listed requirements. The users, on the other hand, merely required an operating system and a browser. To use the system, the proponents mandated that users have at least a Google Chrome browser and a Windows 10 operating system.

**3.3 Technical Terms (Definition of Terms)**

Information Requirements**.** Information requirements refer to the inputs needed for the proposed system. It includes the data that are needed to be collected to further identify and understand the system operations. The system will be needing a list of internship requirements, data of linked companies needed in the system, and ILDO’s suggestions and preferred features that they want the system to utilize.

System Features**.** System features refer to the components of the proposed system that performs a specific task for record-keeping, monitoring, and evaluating interns’ performance. It includes the operational transactions of the proposed system which includes account creation, requirements compliance, customization of the internship calendar, daily time record monitoring, submission of requisites during an internship, and evaluation of the performance in the internship.

Level of Usability. Level of Usability refers to the measurement of how effectively, efficiently, and successfully a certain user can utilize a product or design in a specific situation. It also refers to a group of assessments that rate the usability of a system in terms of its utility, satisfaction, and usability—aspects that will need to be taken into account as the system is developed further. It relates to the assessment that monitors the degree of usability in terms of its utility, contentment, and simplicity of use—factors that will need to be taken into account as the system is developed further. To accurately assess the system's capability in the model's numerous various elements, the system additionally integrated the standards from the ISO/IEC 25010 Software Product Quality Model.

Monitoring System. A monitoring System is software that aids system administrators to keep track of their system. In this study, the monitoring system is utilized as a response to data security, data gathering, and the overall health of the system.

ILDO. The Industry Linkages and Development Office is an organization that supports on-the-job training, monitors and evaluates students as necessary for their field of specialization, and helps students develop their skills by managing and assisting them with various employment opportunities. In this study, ILDO will take part as the respondent for a clear understanding of this research.

Interns. Interns can be referred to as students or a trainee working at an establishment. In this study, interns were one of the sources of data that would be beneficial to the research.

Software Product Quality Model. Software Quality Models are a common method of evaluating software products. This eventually results in the requirement for assurance that the product so constructed at least satisfies the anticipated criteria. In this study, this model was used to determine which quality factors will be used when assessing a software product's qualities.

Web-based. Web-based refers to an external application that is accessed via a web browser over the internet. In this study, web-based is used as software specifically designed to let users communicate with a remote server using a web browser interface.

Web-based Internship Records Monitoring System. A proposed web application that provides record-keeping and monitoring features for internship programs of Sorsogon State University-Bulan Campus.

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