

E-Logbook Application System to Support the Guidance Process Final Assignment for Semarang Maritime Science Polytechnic Cadets

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Abstract. A website-based application system that is one of the Internet media that is often used to do various things by providing services ease, speed especially in the recording process. The Polytechnic of Navigation Sciences (PIP) Semarang, previously still used manual methods in the process of guiding the Final Tasks (scripts) of its taruna. Given the current advances in information technology, the manual can be improved to anticipate problems in the guidance process, for example, the missing or missing guidance records can be minimized by using an application system. For this, it is necessary to build an e-logbook application system that can input data from a manual system to a website-based application system aimed at managing data and storing data as well as building a system which can facilitate the performance of the lecturer and the study program performance at the Polytechnic of Shipping Science (PIP) Semarang. The objective of this research is to develop a website based application system such as e-logbook to make the process of recording the final guidance activities of the cadets easier. This research uses the type of qualitative data with data collection in the form of interviews with tutoring lecturers and cadets in PIP Semarang, observation and literature studies. The utilities used in the development of this system are PHP and MySQL. The research resulted in an e-logbook system that is easily accessible to various stakeholders in the Semarang Polytechnic of Shipping Sciences (PIP) environment that includes structured recording, storage, and reporting.

Keywords: Application system, e-logbook, website, system development, final task guide

INTRODUCTION

Within the current time of data innovation, numerous suppositions suggest that one of the most causes of the time of globalization which is arriving quicker than everybody anticipated is the fast advancement of data innovation. The usage of the web, electronic commerce, electronic information compatibility, virtual office, telemedicine, intranet, and so on has entered physical boundaries between nations. The combination of computer technology and broadcast communications has come about in a transformation within the field of data frameworks. (Beam Hendarshah P, 2011). Information or data that within the past would have

taken days to be prepared some time recently being sent to the other side of the world, can presently be wiped out a matter of seconds.

Broadly talking, there are four periods or periods of data frameworks improvement, beginning from the primary disclosure of computers until nowadays. The four times happened not as it were since they were activated by the fast advancement of computer innovation, but were moreover bolstered by unused hypotheses with respect to present day corporate administration. Administration and organizational specialists such as Diminish Drucker, Michael Pound, Watchman, have enormously colored management's views on data innovation within the present day time.

Hence, it is justifiable that there are still numerous companies, particularly in creating nations (third world), which still discover it troublesome to adjust unused speculations with respect to administration, organization and data innovation since neighborhood or nearby social components are still joined to them which impact asset behavior. the human. So it isn't shocking that we still frequently find companies with the foremost advanced computer hardware, but it is still utilized as authoritative apparatuses, which in reality was the period of the world's to begin with utilize of computers within the early 1960s.

One shape of advanced change is moving trade exercises and recording exercises that were already carried out physically, such as composing on paper and writing in word handling programs, to online stages that can be gotten to anytime, anyplace. This will make it simpler for all clients included in an action to carry out their obligations and duties (Azizah et al., 2022). Carrying out exercises online moreover has a few other points of interest. By moving work to an online-based stage, the framework is not stuck in one put, such as as it were being able to be gotten to in certain rooms or by means of certain gadgets (Wong et al., 2022a). At that point, the framework too tends to be more secure and steady since the handling is done on a extraordinary computer. In the event that harm happens in, for illustration, an office range, the nearby framework is likely to be harmed, but an online-based framework is less likely to be harmed (Febriani & Wahyuni, 2017). This can be since the physical area of the framework is exterior the most area (offsite).

Within the Semarang Sea Science Polytechnic (PIP) environment, the cadet Last Project/Thesis Direction framework is still done physically and is less proficient. Usually since direction cadets still utilize direction books/consultation books in their direction handle. The administrator will give notes on the direction handle utilizing the cadets' direction book/consultation book. Indeed in spite of the fact that this manual recording movement can be said to be very satisfactory, it would be superior if all Last Task / Proposition Direction

exercises were exchanged to employing a website-based Logbook system. The plan of this website-based logbook information system will be overseen in a way that's more adaptable in agreement with the requirements of bosses and cadets. In arrange to preserve the precision and greatest execution of this website-based logbook, the inquire about group will plan a few limitations which include that the framework can as it were be gotten to by administrators, college admins and cadets. The framework can as it were input information, oversee information, and store information which is able afterward be utilized for information recording. And most critically, this framework can as it were be gotten to by clients who have get to rights.

Within the investigation and plan of data systems, system investigation is the method of breaking down a framework into parts to form it simpler to consider how these parts work and associated with each other (Andry & Wijaya, 2020). In carrying out investigation and plan on a framework, a more essential strategy of portraying the concepts and capacities of the framework is required. In creating a framework, it requires the association of 4 (four) components, namely input, handling, yield and control. Concurring to Kristanto (2018) a framework may be a collection of components that are interrelated and work together to prepare input tended to to the framework and prepare this input to deliver yield. Yield exchanges data that has been handled so that clients can utilize it for different purposes. The framework too requires criticism to deliver the correct yield for its clients by assessing the handled input (Nugroho et al., 2016).

Web servers may be a frame of server that handles demands from running website . In common, websites have the taking after capacities :

1. Communication Function : provides communication functions, such as chat, video, telephone and other features.
2. Information Function : displays data and information such as news, libraries, references and others.
3. Entertainment Function : provides online entertainment facilities such as music, games, videos and others.
4. Transaction Function : become a means for carrying out transactions and so on.

In this investigate, the application framework that will be made is the Ultimate Task / Proposition Direction application framework for PIP Semarang cadets. Where PHP could be a programming dialect utilized to construct energetic and intuitively websites (Prasetya et al., 2021a). Energetic implies that the site can alter its appearance and substance to suit certain

conditions.

MySQL, encompasses a database server definition with the SQL database dialect. MySQL could be a subordinate of one of the most concepts in databases, to be specific SQL (Organized Inquiry Dialect). SQL can carry out database operations in terms of data selection and section. SQL database operations can be utilized naturally for handling effectively, quickly and successfully. MySQL may be a database framework (DBMS) that can be utilized by both clients and servers within the database of a computer code.

Within the Semarang Oceanic Science Polytechnic (PIP) environment, the Ultimate Project/Thesis Guidance process for cadets still employments manual media within the shape of direction books/consultation books. Where the overseeing speaker still must carry out the movement of recording the comes about of his adjustments within the direction book/consultation book for his cadets. Not to specify the exercises of the teachers who still ought to implement the Tri Dharma of Higher Instruction, making a direction plan must be balanced to the action plan of the teachers and the scholarly plan of the cadets who will be directed. Typically clearly less productive and compelling. So the guidance process cannot be adaptable and takes very a part of time in deciding the assembly schedule between speakers and the cadets they supervise. In arrange to expect the over issue, the investigate group attempted to unravel it by employing a website-based Logbook framework. This website-based logbook application framework will be overseen in a way that's more adaptable in agreement with the requirements of administrators and cadets.

LITERATURE REVIEW

1. Development of Information Technology

Progresses in advanced innovation combined with broadcast communications have brought computers into a period of "transformation". Within the early 1970s, PC or Individual Computer innovation was presented as an elective to scaled down computers. With a set of computers that can be put on a work work area (desktop), a director or specialist can get information or data that has been handled by the computer (at a speed nearly the same as the speed of a smaller than expected computer, indeed a centralized computer). The utilize of computers in companies isn't as it were to extend efficiency, but moreover to back more viable work forms. Not at all like within the period of computerization where computers were as it were "private property" of the EDP (Electronic Information Preparing) Division in a company, in this moment time each person within the organization can take advantage of the modernity of computers, such as for preparing databases, spreadsheets, and information preparing

(conclusion -client computing). The utilize of computers among companies is progressively far reaching, particularly bolstered by the nature of competition which has changed from restraining infrastructure to free advertise. By implication, companies that have utilized computer innovation are exceptionally proficient and compelling compared to companies where a few of their forms are still overseen physically.

It was in this time that computers entered a modern stage, specifically as a office that seem give competitive preferences for companies, particularly those working within the administrations division. Present day organizational administration theories were goal presented within the early 1980s. One of the foremost broadly considered and connected speculations is alter administration. Nearly all alter management theoretical systems emphasize the significance of data innovation as one of the most components that must be considered by companies that need to win in commerce competition. Not at all like within the two past times which emphasized more on innovative components, in this time of alter administration the accentuation is more on data frameworks, where computers and data innovation are components of the framework.

The key to company victory within the 1980s was the creation and control of data rapidly and precisely. Data inside a company is analogous to blood within the human circulation which must continuously stream frequently, rapidly, persistently, to places that require it (vital). It is emphasized by a few administration specialists that companies that control data have a competitive advantage within the "directed free showcase" large scale environment. In this period, the philosophical alter from conventional companies to advanced companies lies in how administration views the key to company execution. Conventional organizations see company structure as the most key to measuring execution, so that everything is measured progressively based on divisions or offices.

In cutting edge organizational hypothesis, where free competition has caused clients to be intelligent in choosing different items on the advertise, the method of making items or administrations (giving services) to clients is the most key to company execution. This circumstance is regularly related with administration terms such as "advertise driven" or "client base company" which are basically the same, specifically that the company's execution will be evaluated by the fulfillment of its clients. It is exceptionally clear in this unused competition arrange, the part of computers and data innovation, combined with other components such as forms, strategies, organizational structure, human assets, corporate culture, administration and other related components, in shaping a great data framework, is one the key to the company's key victory. It cannot be denied that client fulfillment lies in benefit quality. Essentially, a

client, in choosing the item or benefit he needs, will hunt for a company that offers that item or service:

cheaper, superior, and quicker. Typically where the part of data frameworks as the most component in giving a company's competitive advantage. Subsequently, the key to company execution is the forms that happen both inside the company (back office) and in coordinate contact with clients (front office). By centering on making effective, viable and well-controlled commerce forms, a company will have dependable performance.

It isn't surprising that within the 1980s to the early 1990s there were numerous companies carrying out BPR (Commerce Handle Reengineering), re-structuring, actualizing ISO-9000, actualizing TQM, introducing and utilizing corporate data frameworks (SAP, Prophet , BAAN), and so on. The utilization of data innovation appears to overwhelm each alter administration program carried out by companies.

a. Information Globalization Era

There are not numerous books that unequivocally incorporate this final period within the history of the advancement of data innovation. The marvel that can be seen is that since the mid-1980s, advancements within the field of data innovation (computers and broadcast communications) have been so quick that in the event that delineated graphically, the advance that has happened can be seen exponentially.

When an worldwide class on the web was held in San Francisco in 1996, data innovation specialists who had already worked together on inquire about to present the web to the mechanical world truly conceded that they had never anticipated the improvement of the web to be like this. It was as in the event that they saw that what was planted was a mysterious tree seed, which abruptly part into a monster, towering tree. It is troublesome to discover a hypothesis that can clarify all the marvels that have happened since the early 1990s, but the truths that have happened can be summarized as takes after :

Nothing can halt the fast advancement of data innovation. Its presence has disposed of the boundaries between nations in terms of stream of data. No nation is able to avoid the stream of data from or exterior other nations, since the boundaries between nations are obscure within the virtual world of computers. The application of innovation such as LAN, Pale, GlobalNet, Intranet, Web, Extranet, is getting to be more predominant and settled in in society day by day. It has demonstrated to be exceptionally troublesome to decide suitable legitimate rebellious that are demonstrated to be viable in avoiding everything related to the creation and stream of information. Companies are now not bound by physical boundaries. Through the virtual world of computers, somebody can explore for clients in

all levels of world society who are associated to the web organize. It is troublesome to calculate the sum of cash or speculation that streams openly through the web organize. Exchange exchanges can effortlessly be carried out in the internet through electronic exchanges utilizing electronic cash.

It isn't exceptional for companies to conclusion up having to rethink their commerce vision and mission, especially those included within the field of benefit conveyance. The comforts advertised by advanced data innovation gadgets have changed the mindset of company administration so that it isn't unprecedented for companies to alter gears to seek after other areas. For third world or creating nations, the predicament with respect to the utilize of data innovation is exceptionally articulated. On the one hand, numerous companies are not prepared since of their social structure or human assets, whereas on the other hand, expansive ventures must be went through to buy data innovation hardware. Not having data innovation means they cannot compete with other multi-national companies, meaning they have to be go out of trade. The final thing that's most confounding to administration is the truth that the current trade environment is changing so regularly and powerfully. The changes that happen are not as it were the result of strongly competition, but too due to other outside components such as legislative issues (vote based system), financial matters (emergency), social culture (change), which in a roundabout way deliver modern arrangements and controls. which the company must comply with.

Operationally, of course, this marvel makes it exceptionally troublesome for data innovation specialists to create their frameworks. It isn't uncommon that within the middle of data framework development, necessities alter so that a re-analysis of the framework to be built must be carried out. By looking closely at this circumstance, it is evident that there's a modern require for data innovation that's reasonable for companies, specifically innovation that's able to adjust to alter. Specialists from created nations reply this challenge by creating object-based application items, such as OOP (Question Situated Programming), OODBMS (Question Arranged Database Administration Framework), Question Innovation, Conveyed Objects, and so on.

b. Change in Mindset as a Requirement

From the four periods over, it can be seen how the nature of competition and propels in data innovation since the utilize of computers in industry until presently are closely related to one another. Entering the data age implies entering a world with unused innovation, data

innovation. Utilizing data innovation as ideally as conceivable implies having to alter your mentality. Changing your mentality may be an exceptionally troublesome thing to do, since essentially "individuals do not like to alter".

2. Thesis

Agreeing to the Proposal Manual by Farid Hamid and A. Rachman, proposal could be a term utilized in Indonesia to demonstrate a logical paper within the frame of a composed introduction of the comes about of undergrad (S1) inquire about which talks about a problem/phenomenon in a specific field of science utilizing the same rules. The terms proposition and last venture apply as it were contrast in terms of educational level. The proposition is taken as a necessity to get undergrad status (S1) and the ultimate task is taken as a necessity to get confirmation status (D3). Theses and last assignments are carried out at each college, both State Colleges (PTN) and private colleges (PTS).

When composing a proposal, understudies are ordinarily guided by one or two administrators. The method and stages that must be taken for each college are diverse, but in common the stages that must be carried out are enrollment of proposition members, proposition enrollment, direction handle, class enrollment and trial enrollment to present the research comes about before the inspectors. There are a few considers that too talk about proposal data frameworks.

Siti Patimah conducted investigate related to website-based online e-thesis administration applications. This inquire about employments the PIECE (Execution Data Economy Control Proficiency) investigation strategy. The inquire about comes about concluded that by utilizing the PIECE investigation strategy for the e-thesis administration framework, students' proposal titles will more effortlessly and rapidly distinguish the pertinence of the title to already existing titles (Fatimah, 2018).

Separated from that, there's other inquire about related to the advancement of data frameworks for understudy classes and theses. This investigate employments the Investigate & Improvement investigate strategy. The comes about of the investigate conclude that this information system is within the exceptionally great category, and appears a great reaction among framework clients. (Sabirin, Sulistiyarini, & Zulkarnain et al., 2020).

Advance investigate is related to web-based last project/thesis coordinates data frameworks. The strategy utilized for this inquire about is the Organized Framework Examination and Plan (SSAD) strategy. The comes about of this inquire about conclude that by utilizing this data framework the spread of planning data gets to be more computerized and

enlightening. And by utilizing this data framework you'll be able too be more intelligently with continuous exercises such as the direction and enlistment prepare. (Kurniawan & Bondowoso, 2019).

The final related inquire about is planning a proposal store application. This inquire about employments inquire about and improvement technique. This strategy is utilized to deliver certain items and test the adequacy of these items. The comes about of this investigate concluded that this application was endorsed with as it were 92% endorsement from the comes about of the survey disseminated. (Nur'Ainun et al., 2017).

3. Analysis and Design of Information Systems

Frameworks examination is the method of breaking down a system into parts to create it less demanding to think about how these parts work and connected with each other. In carrying out examination and plan on a framework, a more essential strategy of portraying the concepts and capacities of the framework is required. In creating a framework, it requires the inclusion of four (4) components, specifically input, handling, yield and control. These four components are combined in system improvement (Framework Improvement Life Cycle) which may be a arrange for analyzing and planning a framework that's more particular to the exercises carried out by clients.

Concurring to Andri Kristanto (2018), a framework may be a collection of components that are interrelated and work together to prepare input tended to to the framework and prepare the input to deliver yield. Yield exchanges data that has been prepared so that clients can utilize it for different purposes. The framework moreover requires input to deliver suitable yield for its clients by assessing the prepared input.

a. Internet

Concurring to Prakoso (2007) the Web may be a collection of neighborhood computer systems that utilize web software and TCP/IP or HTTP conventions. In this manner, an online organize has all the offices that the web has, such as e-mail, File Exchange Protocol (FTP), and so on. An intranet arrange is a web arrange that's as it were possessed by the company and cannot be gotten to from exterior. An intranet comprises of numerous neighborhood computer systems that are associated to each other. At that point, an intranet moreover incorporates a association by means of one or more computer doors to the web world. The most reason of an intranet is to share company data and computer assets. Intranets are also used by companies to oversee substance, coordinate, distribute and file

archives. Besides, intranets can be utilized to back gather work and teleconferences. TCP/IP could be a connection-oriented error-free communication convention (overlooking switch media) which comprises of two conventions, to be specific TCP and IP. The IP convention executes a association between two gadgets in a computer arrange based on 4 byte (32-bit) tending to. Tending to like this causes the TCP/IP convention to have free switches. A strategy of sending bundles in TCP/IP where each time a association happens between two machines on a arrange that has been indicated by the OP address and subnet cover, TCP makes a single IP parcel of the information to be transferred. Each parcel contains a header that holds the taking after data:

- 1) PortId, identifies the application that will run on the machine whose data is being transferred.
- 2) CheckSum, used to check whether the transferred packet contains errors or not. If there is an error, the data will be sent again (resend),
- 3) Other control information related to data types and applications.

Some time recently all the information is sent, TCP will to begin with break the information into datagrams (bunches of information) at that point one by one these datagrams are transmitted to the goal IP address. This transmission handle is carried out in an free course, which implies that each datagram in one information framework can be transmitted in a distinctive course. In case one of the datagrams encounters an mistake in sending information, TCP on the goal machine demands the datagram once more. In case all datagrams can be gotten accurately, TCP will at that point sort them back into one bunch of information as they came from the source.

b. Website

Concurring to Agung (2000) website may be a collection of web pages that are connected to each other and whose records are related to each other. The internet comprises of pages or pages and a collection of pages called homepages. The homepage is within the best position, with related pages underneath it. More often than not each other page on the net. The site was initially an data introduction benefit that used the hyperlink concept, which made it simpler for surfers or web clients to rummage around for data on the web. The data displayed with

The internet employments the interactive media concept, data can be displayed utilizing numerous media, such as content, pictures, activity, sound, or movies.

c. Design

Plan is as a rule interpreted as connected craftsmanship, engineering and different other imaginative accomplishments. In a sentence, the word “design” can be utilized as either a thing or a verb. As a thing "plan" is utilized to allude to the ultimate result of a creative prepare, whether within the shape of a arrange, proposition, or within the shape of a genuine protest.

d. *E-Logbook*

Agreeing to the Enormous Indonesian Lexicon (KBBI), the meaning of the word logbook may be a book of recording occasions. A logbook could be a scratch pad or archive that understudies got to archive in detail all exercises within the learning prepare which contains individual personality, competency data, daily notes, learning action notes, understudy reflections, appraisal sheets, inquire about sheets, surveys, instructor and administrator supervision sheets. industry if it is within the form of work hones within the mechanical division. (Wijaya & Fernandes et al., 2020). There are a few ponders that too talk about e-logbooks. The primary inquire about is approximately planning an e-logbook application within the case consider of the Faculty of Pharmaceutical, College of Indonesia. This inquire about was conducted by Andy Wijaya and Johannes Fernandes in 2020. The comes about of this investigate are that the E-logbook application is anticipated to assist numerous FKUI PPDS to overcome a few issues that happen amid the method of diagnosing patients with the E-logbook framework which is all computerized, so that PPDS scholarly checking exercises and collecting report information from PPDS can all be done more effectively and more viably since nearly all exercises are input into the computer. (Wijaya & Fernandes et al., 2020).

The moment past inquire about was the plan of a web-based electronic angling logbook data framework. This investigate was conducted by Hadhi Nugroho, Adi Darmawan, and Agus Sufyan in 2016. The comes about of this inquire about are a web-based electronic angling logbook data framework which was actualized in 2013 and can give data rapidly and accurately approximately angling information, cost data. angle, and water climate data, with ensured information privacy (Nugroho et al., 2016). The third past investigate was the plan of an e-document framework for investigate logbook organization at benefit units in Bandar Lampung. This inquire about was conducted by Ochi Marshella Febriani and Tri Wahyuni in 2017. The result of this inquire about is that the framework plan that has been made makes it less demanding to look and store information, so that the utilize of online computing as a implies of data can be maximized. (Febriani & Wahyuni, 2017).

e. **PHP (Hypertext Preprocessor)**

Concurring to Abdul Kadir (2008) PHP, which is an truncation of PHP (Hypertext Preprocessor), may be a programming dialect in which records and all forms are carried out on the server, at that point the comes about are sent to the client, where the client employments a browser (way better known as server-side scripting). PHP works in an HTML (Hypertext Markup Dialect) report to be able to deliver the substance of a web page on ask.

With PHP able to turn our location into a web-based application, not fair a collection of inactive pages that are seldom overhauled. Why PHP? Since PHP isn't subordinate on different stages, PHP can be run on any stage, be it Unix, Windows or Mac. Another advantage of PHP is the ease of coding, since PHP commands are comparable to C commands. Separated from that, the comfort of PHP is that it can be effectively associated to database applications (performing inquiries), such as MySQL and PostgreSQL.

PHP is free (free to utilize). We do not have to be pay anything to utilize this program. Able to download PHP by means of the official site, specifically www.php.net. For the Windows adaptation, able to get the parallel code, and for the Linux form, we get the total source code. The birth of PHP started when Rasmus Lerdorf in 1994 made a number of Perl scripts that seem screen anybody who looked at his educational modules vitae. These scripts were at that point bundled into a instrument called "Individual Domestic Page". This collection of devices afterward got to be the herald of PHP. In 1995, Rasmus made PHP/FI form 2. In this adaptation, software engineers might glue organized code in HTML labels. Interests, PHP code can too communicate with the database and perform complex calculations on the fly. At first, PHP was outlined to be coordinates with the Apache web server. But as of late, PHP can moreover work with web servers such as PWS (Individual Web Server), IIS (Web Data Server) and Xitami. What separates PHP from other programming dialects is the nearness of a characterizing tag, which starts with "

So we are free to put the PHP script anyplace within the HTML record that we have made. Another advantage of PHP is that it is able to communicate with different well-known databases. Hence, showing energetic information, taken from a database, is easy to execute. That's why it is regularly said that PHP is exceptionally reasonable for building energetic web pages.

f. Databases

Concurring to Marlinda (2004) a database is an arrangement/collection of total operational information from an organization/company which is organized/managed and put away in an coordinates way utilizing certain strategies utilizing computers so that it is able to supply ideal data required by its clients. The planning of a database is utilized to overcome issues in information planning, specifically information repetition and irregularity, information challenges, information segregation for standardization, numerous clients (numerous clients), security issues, integration issues (solidarity), and information autonomy issues (information opportunity).

g. MySQL

Concurring to Didik Dwi Prasetyo (2004) MySQL could be a database server that created in an open source environment and is conveyed openly beneath the GPL permit. MySQL is an RDBMS (Relational Database Administration Framework) server. RDBMS could be a program that permits database users to form, oversee, and utilize information in a social show. Hence, the tables within the database have a relationship between one table and other tables.

RESEARCH METHODOLOGY

The system development method used is the SDLC (System Development Life Cycle) model which has several stages including:

1. Requirements Analysis

The primary thing that should be done after you need to design a framework of any kind is to distinguish what prerequisites are wanted within the system. For case, does a college require a framework that can store information or does it as it were got to be shown? When planning the cadet Logbook site, recognizable proof of these needs was carried out utilizing an meet strategy with related parties, such as professionals, chief technicians, and speakers who were dependable for the Ultimate Assignment / Thesis Direction exercises for PIP Semarang cadets. The comes about of distinguishing these needs are at that point planned within the frame of diagrams, namely utilize case graphs and movement graphs. Typically worn out arrange to be able to decipher needs in story shape into a shape that can be depicted in a framework, such as portraying the required capacities.

2. Design

After depicting the University's needs for the framework you need to plan, the another organize is to plan the framework based on the depiction that was made already. These graphs ended up the essential premise for making any capacities that can be performed on the framework. For illustration, does the location have an alternative to log in or make an account. This plan arrange is isolated into two parts, specifically interface plan and framework system plan. Interface plan is the arrange for making the appearance of a framework and can be a mockup so you'll be able envision what capacities will be performed on the framework. The moment arrange is the arrange of planning the framework system, specifically making vital modules such as making a database and other programming forms to bolster the capacities that have been portrayed within the chart and interface plan.

3. Implementation

Once the framework has been completed, the another arrange is to plan the framework within the wanted environment. This implies that the framework will be sent on the computer gadget that will be the have. This prepare includes joining a location framework that has been planned into a computer so that it can afterward be gotten to by all interested individuals.

4. Testing

In case the framework has been introduced, the framework will go through a trial stage to begin with. This is often done to ensure whether the framework can run within the modern environment, whether the integration has gone well, and most imperatively, to guarantee whether the capacities that have been identified at the starting organize can be utilized and create the specified yield. On the off chance that there are certain blunders, whether beginning from plan blunders, incongruence of necessities with the framework that has been planned, or other issues, they will be quickly found at this organize. This testing stage will moreover utilize fake information which capacities to mimic the commerce forms of the office where the framework will run. Of course, there will be a few parameters that must be accomplished, such as execution, steadiness and framework security.

5. Evolution

In case the framework that has been planned effectively passes all the past stages, it can be said that the framework is nearly prepared to function. The last thing that should be done is to settle any issues that emerged amid the testing stage. These changes will moreover be made as the framework is running at an early stage so that upgrades can be given in the event that usually wanted by the office where the framework is running.

DATA COLLECTION TECHNIQUES

Meanwhile, data collection techniques for carrying out this research activity use several methods:

1. Interview (interview)

In an meet there are two parties, to be specific the questioner and the interviewee. It depends on who will rule the meet movement, whether it is overwhelmed by the questioner or by the interviewee(Arikunto, S., 2013). In this perception, the analyst conducted interviews with PIP Semarang teachers and cadets who experienced firsthand the Ultimate Task / Thesis Direction framework that's right now being actualized.

2. Observation (observation)

Perception is additionally a strategy of collecting primary information, specifically the method of recording efficient behavior designs of subjects, objects or occasions without any communication with the people being studied.(Arikunto, S., 2013). Analysts made perceptions at PIP Semarang.

3. Study of literature

Isefforts to memorize unused data (hypothesis, logical discoveries) related to the factors within the inquire about in arrange to bolster and reinforce the contentions that the analyst is making (Sugiyono, 2013).In this case, analysts collected references with respect to application frameworks, programming dialects and scholastic back frameworks for higher instruction teach.

DISCUSSION

This last assignment/thesis direction application was built utilizing the PHP programming dialect with the assistance of the Scratch pad++ application for the coding prepare. The application plan is still being built on a nearby server utilizing the XAMPP v.3.2.2 application. as localhost. The database server utilized is phpMyAdmin. For the database, it employments the MySQL programming dialect and particularly for Fullcalendar.js it

employments the Mysqli dialect. The taking after are the details for planning the direction application for this last task, specifically the Windows/Linux/Mac working framework, Mozilla Firefox/Google Chrome browser to open web pages with the PHP programming dialect, XAMPP v.3.2.2, and PHP MyAdmin.

The ultimate task direction handle, which is as of now still running physically, has started when the scholarly field has declared the list of administrators for the cadets. After knowing the names of the bosses who have been doled out, the cadets quickly meet the administrator who has been relegated to begin the direction prepare.

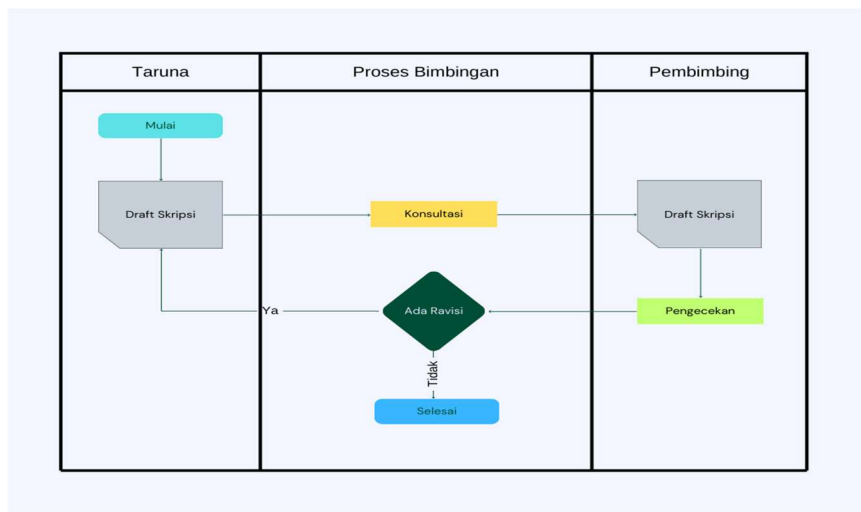


Figure 1.Flowchart of the Final Assignment Guidance process system

Cadets start meeting or direction with their administrator, in this case the boss can comprise of one to two individuals. Interview or direction is carried out concurring to the plan concurred upon by both parties, specifically the cadets and the administrator. Within the direction prepare, cadets can inquire questions related to their last task and the administrator makes a difference to coordinate and assess the comes about of the direction student's last task composing. Cadets have a Thesis Direction Sheet which can be filled in and marked by the boss each time the ultimate assignment direction assembly is held. The direction prepare is total when the composing of the ultimate task has been completed and the boss gives endorsement to require the exam within the closest period. The plan of this last task direction e-logbook application was made for three clients with diverse get to rights, to be specific the Higher Instruction admin client, in this case PIP Semarang, the boss client, and the Taruna client.

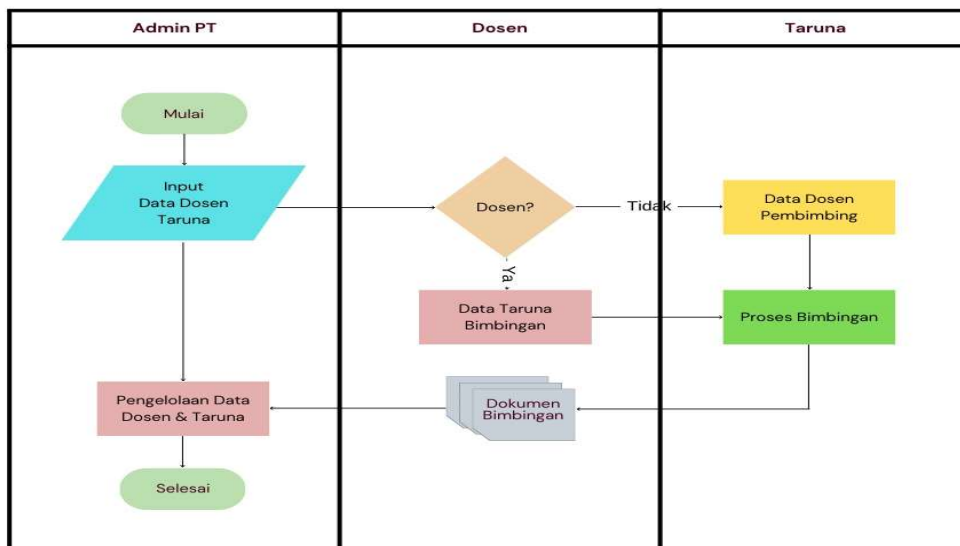


Figure 2.E-logbook application system Guidance for cadet final assignments

In common, all three clients, counting college admins, teachers and cadets, have get to rights to log in, alter and see their individual information profiles, alter passwords and log out. College admins have the foremost get to rights, to be specific they can manage master information contained within the framework. College admins can see speaker information, include speaker information, alter teacher information, and erase speaker information. College Admins can moreover include cadet information, see cadet information, alter cadet information, and erase cadet information. Seeing last assignment/thesis information, changing last assignment/thesis information, including last assignment/thesis information, and erasing last assignment/thesis information can too be done by the College admin. College admin get to is as it were restricted when it comes to direction plans and cadet yield information, that's , admins can as it were see these information. College admin who gives usernames and passwords to other clients to be able to get to this e-logbook application. The following client may be a speaker. Speakers have get to rights to alter individual profiles, see last assignment/thesis information, see cadet information, and see last assignment/thesis information. Teachers have full get to rights to the direction planning handle. Speakers can see direction plans, include plans, alter plans, and erase plans. College admins and cadets, in overseeing planning, are as it were given get to rights to see the plan set by the administrator. Cadets as third clients have get to rights to see boss profiles, see direction plans, alter individual profile information, as well as full get to rights to oversee last task yield data. Cadets can not as it were see last task yield information, but can too include information by uploading yield

information, changing yield information, and erasing yield information. Both admins, teachers and cadets can trade messages within the message / comments column.

The results of developing a website-based e-logbook application system which aims to support the final assignment/thesis guidance process for PIP Semarang cadets, can be seen in the following displays:

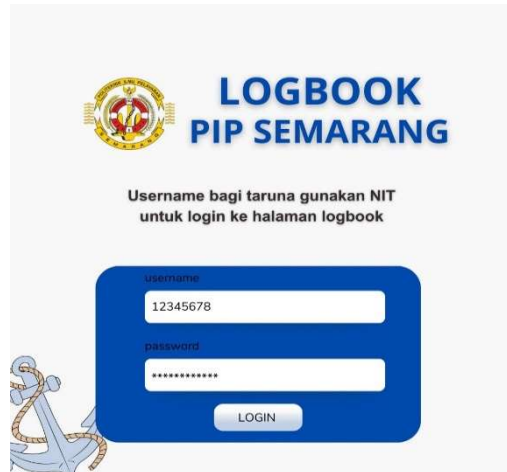


Figure 3.Display user interface for users

The show in Figure 3 appears the method for clients to access/enter the e-logbook framework. For cadets, the username and secret word utilize the Cadet Recognizable proof Number (NIT) when at first entering the logbook application framework. For the another login prepare, cadets can alter the secret word utilizing the alter watchword menu. In the interim, for administrators, usernames and passwords are gotten from the college admin.

The next view is depicted in the figure4. Where the College admin adds data on the names of supervisors for cadets in all study programs, both supervisor lecturer 1 and supervisor lecturer 2.



Figure 4.College Admin management display

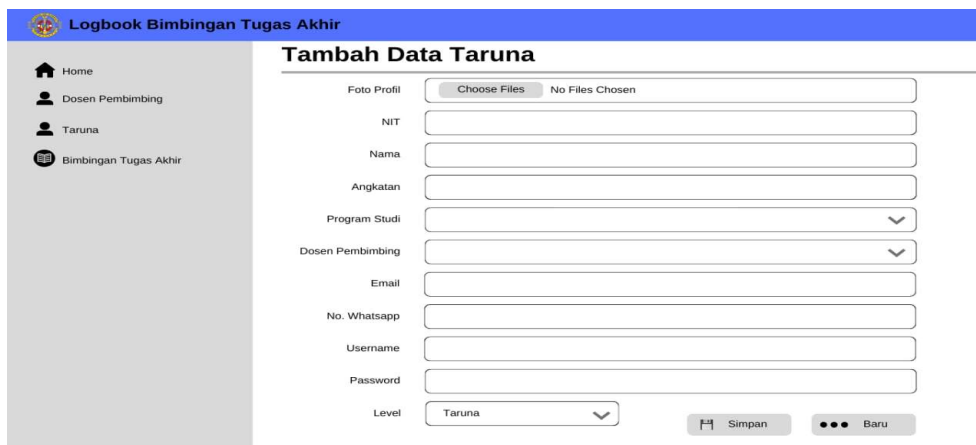
The display in Figure 5 depicts the management process for the supervising lecturer's account, where when the lecturer enters the e-logbook application system, all data on the supervising cadets who will complete their final assignment will appear.



The screenshot shows a web application interface with a blue header and a grey sidebar. The main content area is titled 'Daftar Bimbingan Tugas Akhir'. Below the title, there is a table with the following columns: NIT, Nama Taruna, Prodi, Judul Tugas Akhir, Bimbingan ke, and Aksi. The table contains 15 rows of data, each with placeholder text (xxxxxxx) for most fields and '0' for the 'Bimbingan ke' field. The 'Aksi' column contains the text 'Tanggapi'. At the bottom of the table, there is a pagination control showing '1 2 3 4'.

Figure 5. Page display for supervisor

If the supervising lecturer meets a cadet whose guidance is not on the list of cadets supervising him, the supervising lecturer can independently add data to the cadets he is supervising. Additional guidance cadet data is shown in Figure 6 below.



The screenshot shows a web application interface with a blue header and a grey sidebar. The main content area is titled 'Tambah Data Taruna'. Below the title, there is a form with the following fields: Foto Profil (with a 'Choose Files' button and 'No Files Chosen' text), NIT, Nama, Angkatan, Program Studi (with a dropdown arrow), Dosen Pembimbing (with a dropdown arrow), Email, No. Whatsapp, Username, Password, and Level (with a dropdown arrow showing 'Taruna'). At the bottom right of the form, there are two buttons: 'Simpan' and 'Baru'.

Figure 6. Display of added cadet data

The following prepare is the direction handle which is portrayed on the screen in Figure 7. Where the administrator can carry out the direction handle with the cadets. The direction prepare can be carried out both offline and online. When direction cadets carry out online direction, cadets can transfer direction records into the framework, and teachers can give remedial notes for records that have been transferred. For offline direction, the administrator as it were promptly gives change notes at each assembly.

Figure 7.Guidance Process View

CONCLUSION

Advancement of the e-LogBook application framework which points to back the ultimate assignment/thesis direction handle for PIP Semarang cadets can offer assistance rearrange the direction prepare. Separated from making the direction prepare simpler, think about programs can too utilize e-logbooks to file direction records online which can be gotten to at any time. This makes it simpler for think about programs when it comes to the think about program accreditation prepare or consider program execution appraisal with respect to the cadet direction handle. The e-Logbook application framework is more successful and productive than the current direction framework. Where cadets still utilize last assignment/thesis direction sheets. The e-Logbook certainly truly makes a difference last task cadets to total their last task composing more rapidly. This application also really makes a difference teachers within the handle of assessing graduate information by looking at the direction prepare. By looking at the history of yield information transferred by pre-cadets, administrators can too utilize this information as a advance report for the cadets they administer. Speakers can too utilize the yield information collection transferred by cadets as a reference for suggesting cadets to carry out their last assignment/thesis exams within the closest period.

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