

The Use of Database Management Systems Using the Financial Accounting Cycle

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Abstract: Accelerated technological progress has profoundly altered our lifestyles. The younger generation, as future leaders of the nation, must acquire digital skills to keep pace with technological progress. Adolescents of school age require essential instruction on digital literacy, especially with personal data management and academic requirements. Effective data management will enhance lifestyle efficiency and efficacy. This community service initiative sought to impart database administration proficiency through the financial accounting cycle framework to students at SMK Raudlatul Husna in Central Lombok Regency, West Nusa Tenggara. Thirty-two students engaged in the seminar and simulation activities. The activity was conducted through lectures and class tutorials on data storage methodologies in digital technologies, including Google Drive, Wordpress Web and Instagram. At the conclusion of the session, participants were queried regarding the activity summary, and the majority responded accurately and effectively. This activity is anticipated to be sustained continuously, enabling high school students to acquire both theoretical and practical information applicable to their daily lives.

1. BACKGROUND

Document administration has become exceedingly sophisticated as a result of rapid technological advancements. This necessitates that the younger generation acknowledge the significance of database administration. The swift progression of information technology, particularly with the advent of artificial intelligence, must be harnessed effectively for implementation across many sectors, including business, social domains, and even fundamental self-management (Zulfina Adila et al., 2024). High school students, as the nation's future, must promptly adapt to technological advancements to leverage this sophistication for educational and future requirements.

A plethora of internet apps exists for students, including Google Drive, several websites, and social media platforms such as Instagram. Numerous prior community service initiatives have illustrated the efficacy of utilising Google Drive for online document management. Andi Bulkis Magfirah Mannong (2024) asserted that the utilisation of Google

Drive in SMEs profoundly influences corporate governance, hence enhancing business quality. Taqi et al., (2024) conducted community service and observed substantial improvements in the digital literacy of seminar participants before and after the seminar, which focused on database utilisation in small and medium businesses. Rifdah & Hindun (2024) asserted that small and medium-sized enterprises might enhance their business quality through website utilisation, hence augmenting their return on sales (RoS). This illustrates the efficacy of websites as a branding platform, promotional tool, and data repository.

This Community Service project addressed the same subject as the prior project, but incorporated an additional element, specifically the Instagram social media platform, into the database. Maulana, (2024) asserts that Instagram's Highlights feature is highly efficient for archiving user-uploaded content. Utilising Instagram as a personal data storage platform will serve as the most straightforward educational resource for effective personal document management. This community service will emphasise students' utilisation of database administration for personal and educational applications. Moreover, the database management instructed to participants employs the financial accounting cycle, which commences with identification, recording, classification, and reporting. This cycle will recur as database management requires ongoing implementation to yield sustained advantages. Bozorgian et al., (2024) confirm that effective community service is an initiative crafted with both immediate and enduring objectives, ensuring that its advantages can be perpetually leveraged and stably employed.

This community service initiative seeks to enhance digital literacy by imparting knowledge of database management, thereby equipping students to utilise this technology judiciously for daily requirements and to organise and administer personal databases more efficiently. The outcomes of this community service initiative are anticipated to yield both immediate and enduring, sustainable effects. The effects of this activity extend beyond the participants, potentially influencing their peers and so exerting a wider societal impact.

2. COMMUNITY PROBLEM

This community service activity was conducted in the Kepok district of Mertak Tombok Village, Central Lombok Regency, West Nusa Tenggara. This site was selected due to the school's relative remoteness from urban centres, leading to restricted access to technology. Consequently, the issue of database management was chosen to address the requirements of the partners.



Figure 1. Location

In certain rural regions, technology that is rapidly evolving is not always widely available. Consequently, the requirements analysis revealed multiple difficulties at the community service sites.

1. Comprehension of database management literacy is exceedingly limited. Students continue to lack understanding of the concept and utility of database administration. This was apparent in the first interviews carried out by the community service team.
2. Internet connection is easily available; yet, its utilisation remains inefficient, yielding minimal outcomes.
3. Digital literacy concerning Google Drive and WordPress websites is widely recognised; yet, students lack experience, resulting in this literacy being confined to theoretical understanding.
4. Instagram enjoys considerable popularity among students; nonetheless, its application as a database platform remains notably restricted. Consequently, enhanced outreach is essential to empower students to utilise Instagram more proficiently, particularly for branding and self-promotion.

The issues highlighted in the needs analysis were subsequently deliberated by the community service team members and prioritised accordingly. A flowchart of the content was subsequently developed to enhance the team's outreach efforts.

3. METHOD

The community service method is a methodical approach that academics or practitioners employ to disseminate knowledge, technology, and skills to the broader community as a tangible contribution to the social and economic growth of the community (Mulyati et al., 2018). This approach may encompass socialisation, counselling, mentoring, consulting, and other activities customised to address the specific issues of each partner (Alpiansah et al., 2024). This service employs a participatory qualitative methodology. This community service consists of socialisation and counselling designed to impart knowledge to vocational high school students. This service activity is executed through multiple processes to attain its aims. The process flow is illustrated in Figure 2.

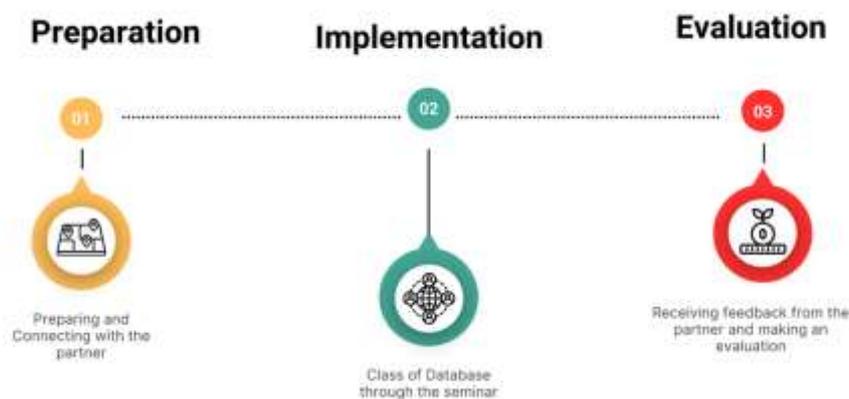


Figure 1. Process

Preparation

The planning phase is an essential component of the community service procedure. Each action must possess a well-devised plan to guarantee seamless execution in alignment with the program's vision and objective (Wijaya & Subekti, 2021). At this juncture, the community service team visited the partner's site and performed a needs assessment. A variety of challenges were recorded in a problem table and subsequently analysed concerning the problems and their remedies. The community service partner, SMK Raudlatul Husna, represented by the principal, articulated several academic obstacles encountered by students. Upon completion of this procedure, the team convened to devise the program required by the partner. Subsequent to consultations with the team, we resolved to deliver content about database management using Google Drive, WordPress websites, and Instagram.

Implementation

Implementation is the execution of the program designed by the team. Meticulous preparation will provide a more concentrated program execution (Mahadika et al., 2023). This section addresses outreach concerning database administration, emphasising Google Drive,

WordPress websites, and Instagram as platforms for database archiving. Alongside outreach efforts, tutorial classes are available that offer examples of database utilisation to students, facilitating a more profound comprehension of the subject offered.

Evaluation

An activity that consistently incorporates an evaluation phase is considered to be beneficial (Sentosa, 2018). Activity evaluation is crucial for identifying deficiencies in implemented activities and ensuring ongoing enhancement for future initiatives. At this juncture, the team collects critiques, recommendations, and feedback from partners concerning aspects for enhancement and incorporation in the subsequent program. Farikha, (2024) states that with positive feedback from partners, it is anticipated that future community service initiatives will operate more efficiently and exert a significantly greater social and economic influence.

4. RESULT AND DISCUSSION

A total of 32 participants from grades 10 and 11 of a vocational high school specialising in Visual Communication Design (DKV) attended this community service activity. Two educators also accompanied the group. The event commenced at 9:00 a.m. and concluded at 12:00 p.m., featuring an opening prayer, statements from the principal, a main session presenting the topic, and concluding with a question-and-answer segment followed by documentation.



Figure 2. Socialisation and Tutorial

The content addressed digital literacy concerning database management. Technological advancements, together with progress in artificial intelligence, necessitate that students become more proficient in technology, particularly in managing personal papers via Google Drive. Sitanggang & Syafariani, (2025) explain that Google Drive is a complimentary 15 GB storage

solution connected with Google services such as Gmail, enabling anybody with a Gmail account to synchronise and share data. The advantages of utilising Google Drive encompass:

1. Enhancing the quality of personal or organisational archives.
2. It is complimentary, thus incurring no expense for utilisation.
3. Files can be viewed conveniently at any time and from any location, provided the device is linked to the internet.
4. A comprehensive security system is assured by Google's infrastructure.
5. Automatic synchronisation maintains interconnected data, facilitating data sharing with external entities.

The subsequent topic concentrated on websites. The presentation had illustrations. The presenter offered a graphic representation of a WordPress website and elucidated its information. WordPress is a content management system that enables users to develop and maintain websites without the necessity of extensive coding proficiency. The benefits of utilising WordPress are as follows:

1. It is complimentary yet offers an extensive menu presentation.
2. It is appropriate for blogs or electronic portfolio storage.
3. It provides a diverse array of appealing themes tailored to Gen Z interests.

Introducing WordPress to young students is rational, as it remains user-friendly and does not necessitate much coding expertise for comprehension. Moreover, the straightforward design facilitates learning as the material is accessible from multiple devices, including computers, laptops, and mobile phones. WordPress is appropriate for archiving or maintaining students' databases, encompassing course data, daily journals, or other materials that may evolve into digital archives.

The final topic provided to the attendees was a discussion about the social media site Instagram. This issue is essential as it pertains directly to the daily experiences of high school pupils. Instagram serves not only as a public platform for sharing photos and videos but has also transformed into a prevalent personal archive storage system. Notable functionalities such as Stories Archive, Saved Posts, and Close Friends enable users to securely retain significant events. Users can revisit previous posts or stories privately, rendering Instagram a convenient digital album accessible at any time on any device.

Additionally, the highlights function enables users to select and preserve significant stories on their accounts, either for private reading or for dissemination to their followers. In Instagram's cloud database storage, users need not be concerned about data loss due to device damage, provided their account remains accessible. Consequently, Instagram serves as a

pertinent database management system for organising personal data in a tidy and aesthetically pleasing format. Upon presenting this subject, pupils comprehended that database administration is intricately connected to their daily lives.



Figure 3. Financial Accounting Cycle

The utilisation of Google Drive, websites, and Instagram is intricately linked to the financial accounting cycle, encompassing identification, recording, classification, and reporting. Each procedure must be executed to guarantee appropriate and systematic database storage.

1. Identification

During this phase, an individual will commence the identification of files, papers, or photographs designated for upload to the database. The identification process is crucial to guarantee that each file possesses a distinct identity and narrative.

2. Documentation

This section pertains to the data entry for the central database. All meticulously catalogued data will then be archived for future utilisation as required.

3. Classification

After the data is saved, users are required to organise the documents and allocate them into their designated folders. Each folder must be systematically labelled by date and event sequence to facilitate efficient retrieval.

4. Reporting

Reporting resembles the process of uploading documents or files and storing them in an established database. The upload procedure on Google Drive is inputting the material into the designated link. To save a database on a website, one must create a new post. On Instagram, one can upload photos to the feed, story, or reels, subsequently putting these images or videos in highlights or the narrative archive.

A cycle is an activity performed repeatedly and continuously. The same principle applies to the data storage process in a database. Students must be capable of executing this cycle for continual application.

The concluding phase of our community service activities entailed an evaluative session to gauge the students' comprehension through verbal enquiries. Participants were randomly allocated questions pertaining to the material presented on database administration through the lens of the accounting cycle idea. Four of the seven participants provided satisfactory responses, whilst the remaining individuals failed to offer sufficient reasons. However, this does not imply that they failed to comprehend the topic. Anxiety and timidity may have hindered their ability to articulate their arguments properly and fluently. The subsequent phase involved a group photograph with the instructor and other colleagues from the community service initiative. The activity unfolded seamlessly and enjoyably.



Figure 4. Photo After Session

This initiative exemplifies a robust dedication to preserving the continuity of the community service program, with the subsequent step being the formulation of a Memorandum of Understanding (MoU) to enable additional activities. The involvement of students from all universities is essential, as they are immediately engaged in the domain of digital literacy instruction. Continuous digital literacy education will reduce the prevalence of technology illiteracy. This will certainly enhance the competitiveness of human resources in Lombok, especially in Central Lombok Regency, West Nusa Tenggara.

Collaboration among many stakeholders is crucial (Paul et al., 2025). Universities, students, and other stakeholders, including banks and local governments, are essential, particularly in the provision of internet access and textbooks pertaining to database management technologies. This community service program can act as a first step towards facilitating additional opportunities, allowing more young individuals to actively participate in the domain of database management technology education.

This community service project proceeded seamlessly from beginning to end. Participants exhibited enthusiasm and anticipated forthcoming programs. This initiative will persist continuously with the backing of multiple stakeholders, enabling the broader community to reap its concrete advantages.

5. CONCLUSION

The community service activity proceeded as intended. Students who attended a seminar and a basic lesson on databases demonstrated considerable enthusiasm for participation. At the outset of the discussion, it was evident that the attendees lacked familiarity with databases, specifically with Google Drive, websites, and utilising Instagram as a personal repository. Upon obtaining the material, the participants exhibited considerable interest, as seen by the majority responding to the asked questions.

We will persist in monitoring the participants' progress. We anticipate that further young individuals will engage in this activity, concentrating on database administration via the lens of the financial accounting cycle, so enabling a greater number of youths to reap the benefits of swift technical advancements.

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