

Database System Development for Student Learning Planning Program

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Abstract: - Developing a database system for universities is very important. Databases are useful for universities, one of which is data that involves students. The database is also useful for the students themselves. When students carry out the learning process, it will help them monitor the progress of their studies. Apart from that, the university monitors students in taking study programs, especially in the era of independent campus learning which is a program from the government. Apart from that, the database will also identify students who excel so that this can be done to develop learning. More than that, all student academic activities will be captured and become an information center for the university. The research was carried out using the observation method on students who input data for student learning plans, which is carried out every semester. With the government program in the form of independent learning, a system was created that can identify students taking part in the program activities. This database then becomes information for lecturers and universities to be able to determine learning targets and see program results. The development of this database system can also enable students to know their course progress.

Key-Words: Database system, development system, planning program, learning, student, university.

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1 Introduction

The learning system at universities requires the integration of student data and the lecture system. System development for students is needed to achieve learning targets and evaluation. The learning plan system will help institutions carry out supervisory functions. Therefore a data base is very necessary.

At the show, colleges are confronting a basic time of move from advanced campus to keen campus. Since cloud benefit information has the characteristics of differences, in expansion to organized information, there is too much unstructured information, which plays an imperative part in the consideration and life of the larger part of understudies. In this manner, it is exceptionally imperative to progress the development level of the savvy campus cloud benefit stage. At this organization, there are awesome contrasts between the benefit stage beneath the conventional demonstration and the savvy campus stage beneath

the huge information computer framework. Beneath the conventional mode, the development strategy of the keen campus cloud benefit stage within the city has a few inadequacies. Subsequently, it is pressing to construct a savvy campus cloud benefit stage, [1].

Database refers to the development of learning programs. Therefore, the database will be used to facilitate the learning process to make it easier for students, lecturers, and staff involved to work. Apart from that, the database will make the control system better, more transparent, and monitored. Students will be monitored for their academic activities so that the university can identify achievements and follow up on learning development.

In January 2020, the Indonesia Ministry of Education and Culture already launched an independent campus learning program. Therefore, students can explore learning activities outside the campus. For this reason, students must have a study program plan. With this policy, universities need to have a student database. Therefore, database

development needs to be carried out to identify student learning programs.

Colleges are energized to convert higher instruction based on the free campus approach through the arrangement of the eight fundamental markers. There are 1) graduates get not too bad occupations; 2) understudies pick up off-campus involvement; 3) speakers have exercises exterior the campus; 4) educating hone on campus; 5) lecturer's work can be utilized by the community and get worldwide acknowledgment; 6) ponder programs in collaboration with world-class accomplices; 7) collaborative and participatory course.

This agreement was advanced to create a plan for students. Considering the rapid movement of society, society changes in the world of work, and innovation, students' skills must be designed to better meet the needs of the times. In other words, we are networking and coordinating not only with industry and the world of labor, but above all with a rapidly changing future. Particularly in the case of internship programs, students were too far removed from the real industry/professional world and unprepared for the job.

Supervisors at work were expected to be responsible for creating an environment in which students were part of a group. Underclassmen were expected to feel that they had a place and to accept that they could contribute to the activities of the group, [2]. In addition, internship preparation is necessary so that students are aware of positive behavior and the stresses that can dominate relationships and that they may face.

Campus emergency administration frameworks vary from commercial ones concerning particular partners to serve, highlights to actualize, techniques to create and actualize, laws and controls to comply with, limitations and challenges to go up against, and different assets to distribute. It is foremost to define emergency methodologies and arrangements for colleges, given that colleges may encounter more extreme challenges than commercial partners that have points of interest in assets and capabilities, [3]. So that, the database needed to help the entities. Based on the database, we have conducted investigation and examination on enormous information preparation and investigation, and given a great arrangement for huge information. Be that as it may, due to the huge information capacity prerequisites within the nearby record framework may not be completely met. Hence, the capacity and

administration of enormous information, unwavering quality, availability, and scalability are increasingly embraced by dispersed record framework, [4].

The purpose of this research is to identify the learning program of students entering the database into the system university. The students explore the needs of learning planning in one semester and also along their studies until graduation.

2 Literature Review

2.1 Database System

Two themes emerged from the data classification process: 1) Learning Resource Accessibility; and 2) Timely and Effective Communication. At the point of care, convenient and simple access to learning resources increased students' self-assurance and competency in performing clinical skills, which decreased anxiety and raised satisfaction levels. Having educational and skill-based tools easily accessible also helped to improve patient safety at the point of care. Between students, clinical facilitators, and academics, effective and timely communication increased engagement and collaboration. This created a more encouraging environment that increased student autonomy and motivation for self-directed learning. It has been discovered that timely and effective communication of evaluation and progress strategies to students increases their motivation to learn independently and increases their level of engagement, [5].

A database may be a collection of interrelated information, ordinarily put away agreeing to an information demonstrate. Ordinarily, the information is utilized by one or a few program applications through a Data Base Management System (DBMS). The division of the database and the DBMS, particularly within the domain of social databases, is regularly incomprehensible without trading the database in another organization. In these circumstances, the database is frequently unusable by the DBMS, unless the database is imported back to an arrange caught on by the DBMS. Conceivably due to this inseparability, both the DBMS and the basic database are regularly colloquially alluded to essentially as database. It is worth noticing, even though, that the previous could be a piece of program that does, whereas the other could be a collection of information that is, [6].

Scholastic library websites ought to bolster an assortment of clients (understudy, workforce, staff, chairman, graduated class, etc.) with mental interests related to inquiring about, educating, and learning, in expansion to being user-friendly, important, and enlightening. Taking a user-centered approach, particularly the user-centered plan (UCD) technique, this study explores clients of an urban scholarly library site within the utilize of triangulation, a mixed-methods approach that incorporates client overview, user interviews, and site investigation. The discoveries uncover that the larger part of clients just like the site and discover the substance profitable for educating and inquiring about, but clients moreover thought the site plan was dated (not a present-day plan), a few of the substances was conflicting, and get to of all sorts risen as a major topic. They comes about give proposals for the library site update and are critical in making a difference custodians of comparative libraries utilize triangulation of information to pick up a multidimensional understanding of their clients in arrange to educate the plan and advancement of library websites, [7].

2.2 Basic Structure of Information Systems

The advancement of this framework is carried out with the point of making a difference in analysing the decision-making prepare. The plan of the data framework comprises of utilizing case charts, and information stream charts. Cloud computing may be a show for empowering helpful on-demand arrange to get to a shared pool of configurable computing assets (such as systems, servers, capacity, applications, and administrations). The framework must be able to take after occasions created by overhauling to screen changes, [8].

Hone programming is received, [9]. A few steps can be taken:

- a. Arranging (Necessities). At this arrangement, an investigation is carried out to discover all data concerning program prerequisites, such as the ease of use of the program wanted by the client and the confinements of the program.
- b. Framework Plan (Plan). The plan gives a total picture of the stream and the appearance of the required data framework.
- c. Execution (Usage). All designs are changed over into program codes. The coming about program

code is still within the shape of modules that will be coordinated into a complete system.

- d. Confirmation (Confirmation). Testing is to discover whether the computer program is taking after the required plan and see in case there are still inadequacies.
- e. Support (Support). The wrapped-up computer program will be worked by the client. So, it needs upkeep which incorporates blunder adjustment, advancement of framework unit usage, and enhancement of framework services according to modern needs.

3 Research Methodology

The research used several stages. The first stage is to observe the student's learning program in one semester. Next, identify the learning process that must be taken while taking the study program of interest. Next is the process of inputting data into the database system at the university.

4 Results and Discussion

The development of the arranged society as a unused social shape has incredibly affected how individuals get to and devour data. With the Web being more dynamic than ever, an expanding number of individuals are learning, working, and living within the organized society, [10]. Students' activities within the classroom play a key part in their considering execution of course. This thinks about centres on the programmed acknowledgment of students' unconstrained activities in a genuine classroom environment. A database of students' unconstrained activities is, to begin with set up in this think about. In arrange to construct a keen campus instructing framework with great educating effectiveness, this paper moves forward the conventional ZigBee calculation and builds a savvy campus instructing framework based on ZigBee remote sensors, [11].

It is the unavoidable result of higher instruction change to carry out office and departmental target duty framework, in which measurable preparing of student's data is a critical portion of student's execution survey. On the premise of the examination of the student's assessment, the understudy data administration database application framework is planned by utilizing the social database

administration framework computer program in this paper. In arrange to actualize the work of understudy data administration, the utilitarian prerequisite, general structure, information sheets, and areas, information sheet Affiliation, and computer program codes are outlined in subtle elements, [12].

The discoveries a few investigate and investigation of the overviews and interviews have been coordinated and centre on the taking after topics: Having a place in the work environment group; the effect on the working environment group, the effect on personal behaviours within the working environment, understudy behaviors that effect on the work environment, [13]. Work coordinates learning encounters give openings for understudies to get to be a portion of a community of hone.

The Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia launched a new education program called Independent Learning – Independent Campus, by Ministerial Regulation No. 3 of 2020 about National Higher Education Standards 2020. The program encourages students to learn about topics both inside and outside of their on- and off-campus study plans. School-based teaching, internships, rural initiatives, student exchanges, research, entrepreneurship, independent activities, and humanitarian projects are some of the ways that the program is implemented, [14]. Examining community service projects carried out by faculty members and CE-ITI students in conjunction with students, family welfare development members, and small and medium-sized businesses was the goal of this study. Thus that, the database had to be prepared to identify. Given that most modern programs and systems are too complicated and lengthy for a single programmer to finish, it appears that programming has evolved into a shared intellectual endeavor, [15].

These come about got to be the premise for the improvement of an information framework that was made to encourage administration offices to create databases. Database advancement is carried out by making web site to be able to reach the student's individual data needs and the internship program that's taken after.

A conceptual database plan is the method of building a demonstration from the data utilized in an organization and does not depend on physical contemplations. The ultimate result of this arrangement could be an information lexicon that contains all the attributes and their keys (essential

key, substitute key, and remote key) and a substance social chart, [16].

Physical Database Plan A physical database plan creates a representation of a database implementation with supporting functions that represent the basic relationships, record organization, lists, and all associated evaluation requirements and security measures used for proper access to information, [17]. The most important goals for this social demonstration incorporate:

- a. Make social tables and imperatives on these tables and the data gotten within the coherent information show.
- b. Distinguish capacity structures and strategies of getting to information to attain the ideal execution of the database framework.
- c. Planning security for the framework.

The steps taken for the improvement of this demonstration are based on needs and comfort. Wants of students and education are expressed within the form of required recognizable proof which is carried out with focus group discourses to reveal issues and decide elective steps to be taken.

From the comes about of the FGD conducted by educate spoken to by teachers and understudy agents of independent learning programs. Given the small number of members in a center gather talk and the common plan as a one-off experience, one cannot thoroughly examine a subject fair by conducting a single gather discourse, for almost six or eight understudies are permitted, [18].

5 Conclusion and Suggestion

5.1 Conclusion

Database system development is very important.

Database systems help educational institutions manage their internship programs properly. By developing this system, the program will enable a simpler data system for students and institutions. By using this database system, all internship activities from the initial process to the final process are recorded.

5.2 Suggestion

The resulting design can be maximized through application and data collection regularity.

This ensures data compatibility and provides other benefits to users.

5.3 Future Research

Next research, the system can have more menu for more learning programs. Also, the application for the mobile application.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

- Intan Shaferi carried out the research framework.
- Alisa Tri Nawarini has organized the data from faculty.
- Rio Dhani Laksana was responsible for the website and executed the program.
- Refius Pradipta Setyanto was responsible for the references.
- Dian Purnomojati has organized the students data and information.

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Conflict of Interest

The authors have no conflicts of interest to declare.

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