

# Planning information systems Kuliah Kerja Nyata (KKN) Institut Pendidikan Indonesia Garut

P Sidiq<sup>1,\*</sup>, D D Bhakti<sup>1</sup>, A M Reynaldi<sup>1</sup> and N A Hamdani<sup>2</sup>

<sup>1</sup> Institut Pendidikan Indonesia Garut, Indonesia

<sup>2</sup> Universitas Garut, Indonesia

\*purnomosidiq@institutpendidikan.ac.id

**Abstract.** Kuliah Kerja Nyata (KKN) is an intraculicular education activity multidisciplinary is carried out at outside campus including the practice of Higher Education Tri Dharma namely community service and carried out routinely every year. With the complex problem of KKN it is necessary to design a governing information system kuliah kerja nyata activities so that it runs well and smoothly, starting from planning activities, surveys, registration, grouping, monitoring, evaluation and reporting. Lembaga Pengabdian kepada Masyarakat (LPM) as a manager of KKN experiencing many problems, by making an analysis of system design system design real job lecture information is a solution to the problem the implementation of Kuliah Kerja Nyata runs effectively and efficiently, because with a real job lecture information system all activities can well organized, although at present there is an information system Kuliah Kerja Nyata running for registration and finance, but it is not yet comprehensive for other activities and is still conventional in nature. The focus of the objectives of this study is to produce a design planning analysis information system in the form of information needs with the required entity making it easier to develop KKN information systems with an approach Geographic Information System (GIS) with the application of progressive Web App for easier implementation. The purpose of this study to make the analysis of real working class information system to improve administrative services better.

## 1. Introduction

Kuliah Kerja Nyata (KKN) is a form of education by giving students to be able to live in the community outside the campus, as well as charity to Tri Dharma College, which is community service in an effort to improve the quality of education for students.

KKN are held off campus with the intention of increasing the relevance of higher education to the development and needs of the community for science, technology, religion, and art in carrying out real development [1]. The implementation of a KKN at the Garut Institut Pendidikan Indonesia (IPI) is managed by Lembaga Pengabdian Masyarakat (LPM) which reports directly to the rector, in the current information system. The kuliah kerja nyata has an online student registration and grouping information system and has been connected to student finances and portals, so that students are very easy in registering and selecting KKN village locations. With the existence of an information system the real working lectures that are running provide excellent service so that all activities can run effectively and efficiently, even though the current information system cannot yet run properly, so that other administrative activities are still carried out manually.

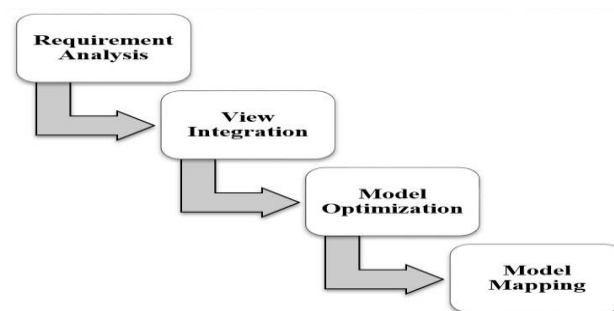


Many problems that often occur in the initial period of the KKN with the problems of reporting and evaluating KKN are also a monitoring of internal evaluation and reporting of program activities to the final report carried out at the village location by the Students and Field preceptor teacher.

Analysis of system planning made focus on research information system planning work lectures in real in reducing the problems of monitoring internal evaluation, so that the analysis of this system can illustrate the potential and progress of KKN programs, so that information systems can map the potential of the village and the sustainability of KKN programs by implementing Geographic Information Systems using a progressive Web approach.

## 2. Methods

Research on application in many studies conducted in KKN research [2-5] and all have used Geographic Information Systems [6]. So that the mapping of real work site locations visually [2]. The division of teams or groups of real life students in the form of web-based system design [3]. Publish information relating to the work activities of through information systems [4], in function to expand the function of Management Information Systems Kuliah Kerja Nyata to the scope of monitoring and evaluation, with the implementation of the Geographic Information System and Progressive Web, in research [5] there is a similarity of the proposed research methods with analysis on [7] information system planning. The methodology for analyzing this information requirement can be illustrated in figure 1.



**Figure 1.** Methodology analyst requirement information [5].

## 3. Results and discussion

### 3.1. Current system

A description of the current KKN information system can be illustrated in table 1.

**Table 1.** Current system.

Function	System
Registration	Yes
Financial	Yes
Placement location	Yes
Placement Lecturer Field Supervisor	Yes
Placement Coordinator Lecturer Field Supervisor	Yes
Profile Location	No
Mapping The Location Of	No
Workshop	No
Final report activities	No
Coaching	No
Monitoring And Evaluation Internal	No
Value exam	Yes
Certificate	Yes

From the results of the analysis of the current system, it was found several systems that were already running on KKN activities and there were also found some functions that did not yet have a system and did not yet exist in the current KKN Information System.

### 3.2. Alternative solution function

To solve the problems in table 1, including making the functions needed by the system to run optimally and be able to support all activities that run from beginning to end. The main functional solutions include (1) making the functions needed to complete the KKN information system in a structured manner, (2) in making the function of the village system, Geographical Information System and progressive web features are added so that services can be accessed easily.

### 3.3. User requirement

In identifying user requirement, it can be adjusted to the function needs of the system summarized in the user story.

**Table 2.** User story.

Function	Description
Profile Location	Identify the location of village activities by loading the basic profile data of the sub-district and village containing information (1) name of institution, (2) area, (3) limits, (4) the number of people, (5) education, (6) health, (7) tourism, (8) post plan.
Mapping Location	Complete village identification according to the sub-district and village profiles, among (1) population data, birth, death date, (2) the amount of earth's production, agriculture, livestock, sea, the data is depicted in numbers and visual graphs.
Workshop	Conduct comprehensive reporting of all activities carried out in accordance with the program carried out by the village during the KKN in the form of presentations.
Last Activity Report	Comprehensive reporting of documentation and reporting activities from begin until end.
Guiding DPL	Field preceptor teacher carry out assessments and assist activities, provide individual assessments directly in an online application system.
Monitoring Internal Evaluation	LPM as a manager can control, update activities in the field by checking the assessment system as an evaluation of the DPL and the program of activities run by students in the village.

### 3.4. Identify entity

According to table 2 it can be described that based on user stories, the identified entities involved can be identified as follows (1) period, (2) schedule, (3) activities, (4) theme, (5) lecturer, (6) coordinator lecturer field supervisor (7) lecturer field supervisor, (8) employees, (9) students, (10) group students, (11) training, (12) workshop, (13) coaching, (14) final report, (15) district, (16) potential, (17) village, (18) city, (19) province, (20) login (21) level.

### 3.5. Identification attribute

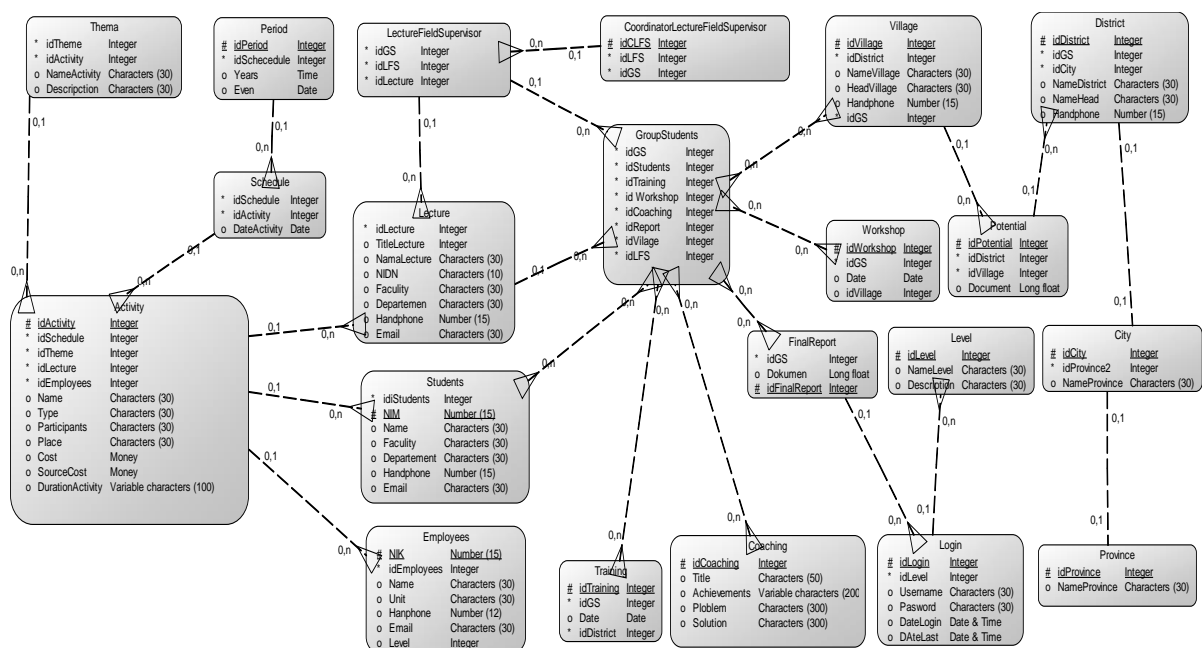
Table 3 below illustrates the attributes related to entities involved in the planning of KKN information system analyst.

**Table 3.** Identity attribute.

Entity	Attribute
Period	idPeriod, Years, OddEven
Schedule	idSchedule, idActivity, DateActivity
Activity	idActivity, idSchedule, IdThema, Name, Type, Participants, Place, Cost, SourceCost, DurationActivity, Description
Theme	idTheme, idActivity, NameActivity, Description
Lecture	idLecture, TitleLecture, Name, NIDN, Faculty, Department, Handphone, Email
CoordinatorLectureFieldSupervisor	idCLFS, idLFS, idGS
LectureFieldSupervisor	idLFS, idGS,
Employees	idEmployees, NIK, Name, Unit, Handphone, Email
Students	idStudents, NIM, Name, Faculty, Department. Handphone, Email
GroupStudents	idGS, idStudents, idScedule
Training	idTraining, idWorkshop, idCoaching, Final Report, idDesa
Workshop	id Training, idGS, Date
Coaching	idWorkshop, idGS, Date
Final Report	idCoaching, idSG, Title, Achievements, Problem, Solution
District	idFinalReport, idSG
Potential	idDistrict, idGS, idCity, NameDistrict, NameHead, Hanphone
Village	idVillage, idDistrict, NameVillage, HeadVillage, Hanphone
City	idCity, idProvince, NameCity
Province	idProvince, NamaProvince,
Login	idUser, idLevel, idLFS, idEmployees, Username, Password, DateCreatLogin, lastLogin
Level	idLevel, NameLevel, Description

3.6. Relation between entity

Relation between Entity conceptual database.



**Figure 2.** Relation between Entity conceptual database.

#### 4. Conclusion

Based on the results of the information system plan that will be implemented it can be concluded as follows (1) the current system has not been able to solve the problem as a whole so it needs to be made added from the shortcomings so that the real-life lecture information system will run effectively and well, (2) from the above system plan requires the creation of 21 new entities.

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