

Job Vacancy Information Systems Planning Using Rational Unified Process

Rina Kurniawati, Leni Fitriani, Adam Kurnia

Abstract: The rapid development of the internet brought many changes for humans to exchange information. In looking for job information in Garut, Indonesia, applicants usually use the manual method, namely by going to the company to see the bulletin board that contains job vacancies, search print media such as newspapers, magazines, and brochures. The process has a disadvantage because the applicant must go to the company in question by bringing the required documents such as curriculum vitae or curriculum vitae that still uses paper. This research aims to create a web-based job information system. The methodology used is a Rational Unified Process with the stages of Inception, Elaboration, Construction, and Transition. Using Unified Modelling Language diagrams, in the form of use case, activity, sequence, and class diagram diagrams. The existence of this Job Vacancy Information System, then job seekers, can minimize the cost and time needed to find information on suitable job openings, including to minimize costs and time required and file delivery via the internet. The utilization of web-based job information system technology is expected to increase in the future in line with the development of information technology at this time.

Index Terms: Information; Job Vacancy; Rational Unified Process; System; Unified Modelling Language

1. INTRODUCTION

Job vacancy information is one of the needs of the community [1]. One of the media that can be used is the internet, especially websites. Web applications are no longer limited to providing static information but are also able to provide information that changes dynamically by connecting to a database. The website is a collection of web pages that are interconnected and can be accessed via the front page (home page) using a browser and internet network [2] [3]. Information systems are a combination of people, facilities, or technological tools, media, procedures, and controls that aim to organize important communication networks, process certain and routine transactions, help management and internal and external users and provide the basis for making appropriate decisions [4] [5]. In finding information on job vacancies, especially in Garut, applicants usually use the manual method, namely by visiting relevant agencies or companies to see the announcement board that contains job vacancies, doing searches in print media such as newspapers, magazines, and brochures. The process has a disadvantage because applicants must go to the company they want to bring with the file requirements such as Curriculum Vitae (CV) or curriculum vitae that still uses paper and the possibility that the requirements brought will be easily torn, wet or lost when it reaches the company. In this case, the creation of web-based job information systems can be done by utilizing the internet [6] [7]. A web-based job information system aims to make it easier for job seekers to find suitable job vacancy information, including to minimize costs and time needed. The utilization of web-based job information system technology is expected to increase in the future in line with the development of information technology at this time.

Previously there have been several studies, namely, the Transportation Department's Enterprise Architecture Information

System specifically designed to meet the needs of the Government who want computerized public services to improve the performance of the implementation of government tasks both in terms of operations, supervision and development can be easier and more efficient [8]. The second research is discussing the development of career development center job application applications for alumni at the arrowroot technology high school [9]. The third research is about developing student applications using the rational unified process methodology [10]. The fourth research concerning Information system UML-model development by OMG RUP technology for Food industry enterprises [11], the fifth study of Networking as an information behavior during job search [12], The sixth study concerning Development of Web-based Information System for Universities Negeri Jakarta [13], Seventh research concerning Integrated Information System to Revitalize The Cooperatives in Banyumas [14]. Based on the research, the gap analysis is obtained where there is no job information system available in Garut Regency.

2 METHOD

The stages in the research used are described by Work Breakdown Structure (WBS), which is a scheme that describes the achievement of objectives in research that are reduced to several stages of work for the achievement of research that each stage is reduced to activity [15]. The stages are limited to the construction stage, namely the design of the interface. Following the steps in the RUP (Rational Unified Process) methodology, the work breakdown structure in the following figure:

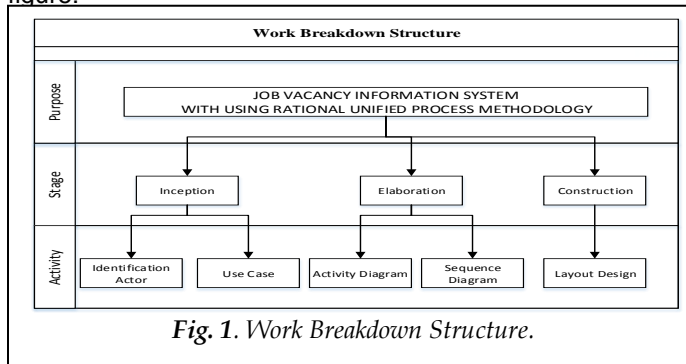


Fig. 1. Work Breakdown Structure.

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Stages of software development into three stages, namely:

1. Inception
At this stage the author defines the boundaries of activities, analyzing user needs, starting from the initial design, modeling UML diagrams (use case diagrams)
2. Elaboration
Stage to complete the design based on the results of the initial analysis at the inception stage. Activities carried out at this stage include the creation of subsystem architecture design, system component design, data format design, interface design, display flow map design, determination of subsystem design used, UML diagram modeling (class diagram),
3. Construction
The stage for implementing the results and testing the implementation results. In the early stages of construction, a re-examination of the results of the analysis and design is carried out, if the design made is following the system analysis, the implementation with a programming language can be done.

Actor	Job Seekers	
Purpose	For user list	
Scenario	Job Seekers	System
	1. enter menu register	2. System view register page
	3. fill form register	4. save form

3 RESULTS AND DISCUSSION

3.1 Inception

In this stage is the ongoing business process activities obtained from the reference book documentation or previous research journals. The activity problem statement also determines the requirements by determining the needs of the application to be built, as well as designing the system to be developed. At this stage, the use case diagram is illustrated [16]. Actor identification is carried out with anyone who will use this application. There are several actors involved:

1. Job Seekers
2. Company Admin
3. Admin Service

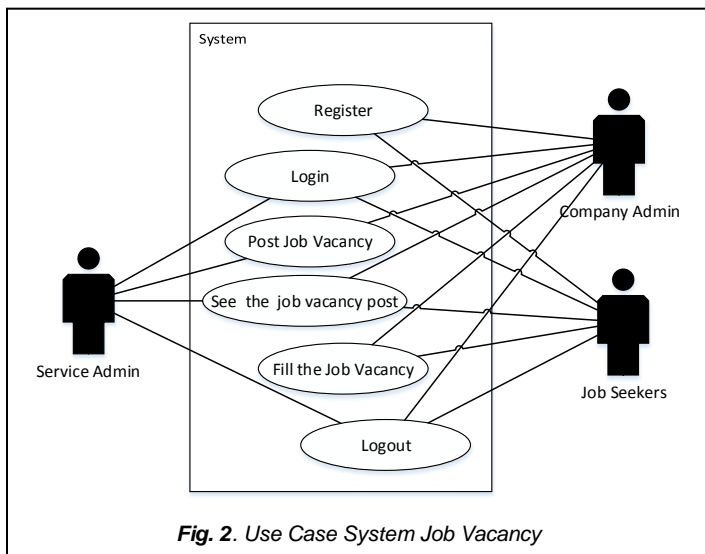


Fig. 2. Use Case System Job Vacancy

case as in the table 1 below :

TABLE 1
Use case Narrative for register

Use Case Name	Register
No UC	1

3.2 Elaboration

The activity diagram illustrates the work of the user of a system. This diagram is based on the use case scenario that has been created. The following is a general description of activity flow based on use cases.

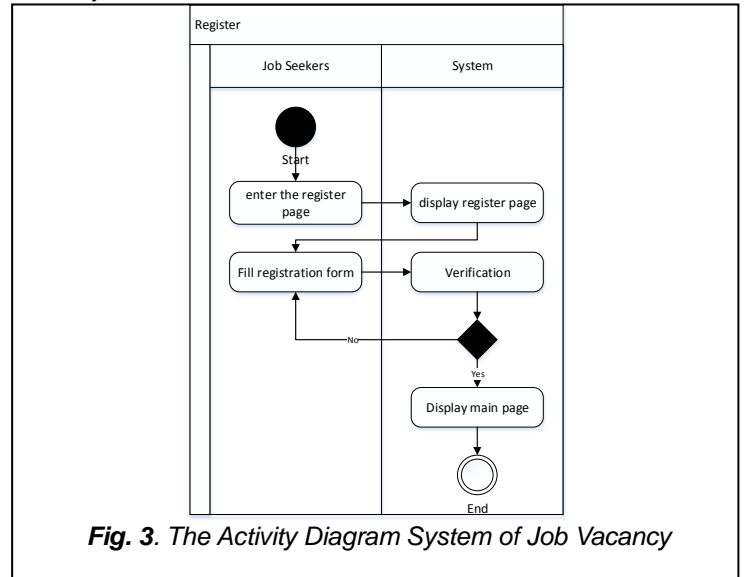


Fig. 3. The Activity Diagram System of Job Vacancy

Sequence diagrams illustrate the interaction between systems and actors. Following is the sequence diagram for the job information system[17]. The following is a sequence diagram of job information systems.

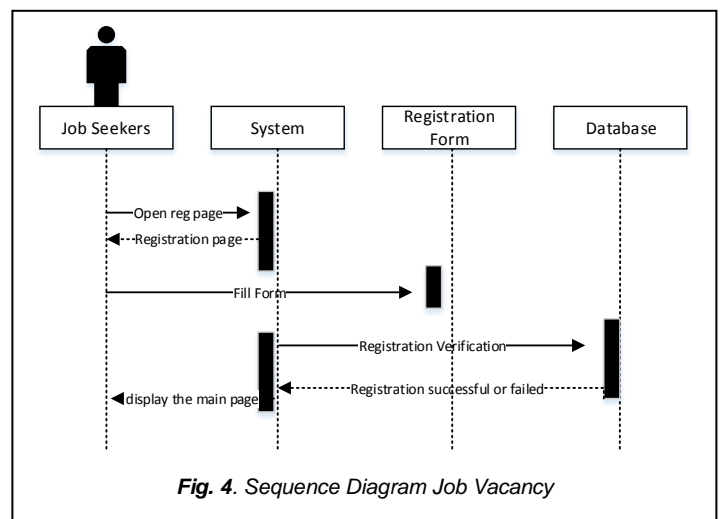


Fig. 4. Sequence Diagram Job Vacancy

3.3 Construction

At this stage, the implementation of interface design, the image below Here is the initial page interface design :

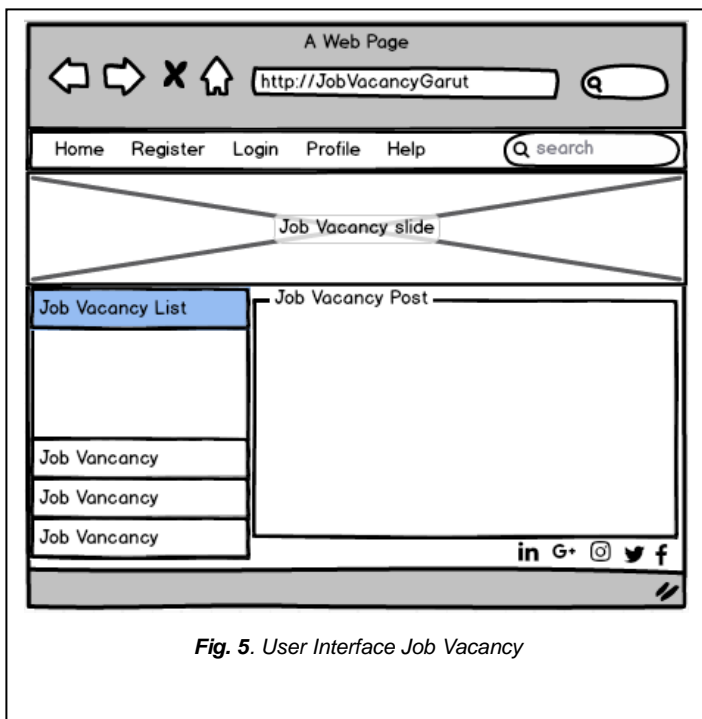


Fig. 5. User Interface Job Vacancy

3.4 Implications of Research Results

The results of this study in the form of a web-based job information system in Garut regency, which can make it easier for job seekers to find suitable job information including to minimize costs and time needed to submit job application applications via the internet, without having to come to the relevant department.

4 CONCLUSIONS

This research is a model of job information systems in Garut regency that suits the needs of job seekers to find job information that is following their expertise, and job seekers do not need to search in print media such as newspapers, magazines, and brochures and job seekers do not have to go to the company the destination is to bring a file of requirements such as curriculum vitae (CV) or curriculum vitae that still uses paper, job seekers can send curriculum vitae via the internet.

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