Job seeker information system using online web based and android mobile phones

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Abstract. In this era of globalization, information technology is very important in the need for accurate, precise and fast information in presenting very complete data and this is one of its important objectives. For this reason, information technology plays an active role in all fields, especially this time in presenting data about Minahasa Regent unemployment that searching for a job, and all information relating to it. The development of internet technology, society is increasingly facilitated in doing several processes, one example is registration of prospective workers. This study uses a Prototype development model that has 3 Stages, namely Listening to Customers, Building to improve prototypes, Customers testing prototypes. Application trials are conducted using Black Box Testing where there are 3 types of trials conducted by the author, namely Developer Test, User admin test, User community test workers who can done by opening the company's website or job vacancy provider services. Primary data collection is done by in-depth interviews using open-ended questions and observation with critical incident techniques. In this study it was concluded that, Web-based Information System Design, is actually very necessary to find out various kinds of unemployment data and activities around Minahasa Regent. This process made easier because of registrants do not have to come directly to the company or service the provider of the vacancy in question to do the registration process so will automatically save time and costs issued by the registrant. This research will developing a software design and manufacturing web-based process that can do registration and selection of recruitment of prospective workers work online. Also provided information services for prospective workers, among other things, look at the announcement of vacancies work, see the results of the selection of admission of candidates online workforce. So the process recruitment of prospective workers by companies that concerned can be held more transparent, and able to increase interest from prospective workers because of the ease of the process registration.

1. Introduction
In the Minahasa Regency there are many sectors can generate community income, but there are still many people who are not having a job, especially among young people. External factors unemployment problems are also a result social cultural influences, for example every family still maintains tradition to his children who have graduated from college for work as an office employee in government or private agencies. As a result, if a child families who work as farmers has become a bachelor and not yet get a job, then child it is considered unemployed. even though agriculture sector in Minahasa Regency still wide open in expanding jobs. By following increasingly modern era and living guidelines, many young people now who has graduated from high school or Higher education
does not want to work as farmers, only because of them still adheres to the principle "Prestige". If the issue regarding such unemployment problems complicated let it drag on then very likely to encourage a social crisis. That happened not only had an impact on para job seekers who just graduated from school, but also afflicts parents who lost work because of office and the factory is closed. Unemployment simply cannot totally wipe out in timeshort, but at least it can be suppressed so that the state of the economy can stable. To overcome the problem this unemployment is very needed the role of government, because the government has a big influence on the problem of unemployment which is there is. See the impact caused from the problem of unemployment that can result in an economy disturbed area. The development of internet technology, society is increasingly facilitated in doing several processes, one example is registration of prospective workers who can done by opening the company's website or job vacancy provider services. This process made easier because of registrants do not have to come directly to the company or service the provider of the vacancy in question to do the registration process so will automatically save time and costs issued by the registrant. This application based on software design and manufacturing web-based process that can do registration and selection of recruitment of prospective workers work online. Also provided information services for prospective workers, among other things, look at the announcement of vacancies work, see the results of the selection of admissions candidates so that recruitment of prospective workers by companies that are concerned can be held more transparent, and able to increase interest from prospective workers because of the ease of the process registration. This paper certainly has certain goals to be achieved. The purpose of this research is Establishment of a Candidate Acceptance System Manpower in the Minahasa Regency manpower office which can be accessed through the website and smartphone.

2. Methods
Everything that we will develop should have a framework, as well as the steps in developing the system / software. The development method used in developing the system for designing and developing this web-based system is the Prototyping method, which in general has illustrations like this.

![Figure 1. Prototype Models [1].](Image)

Prototyping method starts from gathering the needs of customers (users) of the software to be made. Then made a prototype so that customers are more imagined by what they really want. The prototype program is usually an unfinished program, this program usually provides a display with simulation software flow so that it looks like ready-made software. The prototype program is then evaluated by the customer (user) until a specification is found that suits the customer's (user) wishes [1].

Prototyping itself there are processes in developing the initial model of the software into a final system. These processes can be explained as follows [1]:
2.1 Listening to customers
Listening to customers or gathering needs: At this stage data collection is done by interviewing the Minahasa District Manpower Office Planning and Design.

2.2 Building to improve prototype
At this stage planning, designing the system by describing the work process of the registration information system that will be made. Prototype is built based on the requirements of the results of the interview in this phase the writing of program code in order to meet the basic requirements or additional requirements.

2.3 Customer testing prototype
At this stage a prototype registration information system information system was evaluated. If it does not meet the needs of customers, it will return to the initial process. The prototype is deployed to the user and then tried, after an evaluation of the prototype's performance is tried, if it does not meet the client's requirements, it will be patched again through the Prototype development phase and put back into the development cycle. The iteration of all three processes continues until all needs are met. Prototypes that are made can be reused to build software faster, but not all prototypes can be utilized.

3. Results
Any information concerning the size and composition of the labor market (labor supply and demand and their interaction), or early part of the labor market, the way it or any part of it functions, its problems (in terms of entering the market and maintaining a balance between supply and demand in the market), the opportunities the which may be available to it, and employment-related intentions or Aspirations of Reviews those who are part of it. To know and assess whether the information system in an organization having problems or not, there should be an analysis of the information system. If problems are found then to look for the best solution to resolve the issue which is required the design of a new information system. Therefore, before conducting the analysis and design of information systems must first understand the basic concepts of analysis and design of information systems. McLeod and Schell [2] defines a system as a research analysis on existing systems in order to design or to update the system. Meanwhile, another opinion stated that systems analysis is the process of investigation into the information needs of users in an organization in order to set goals and specifications for the design of something. It can be concluded that the analysis system is a process of investigation into the existing system and to the information needs of users in an organization in order to set goals and specifications for the design of a system. The role is decided by the Office Minahasa Regency Workers in accordance with the law Number 13 of 2003 concerning Employment consisting of chapters XVIII and Article 193 where explained that "job training is overall activities to give, obtain increases, as well develop work competence, productivity, discipline, attitude and ethos work at the skill level and certain expertise in accordance with the level position or occupation". Based on research conducted at the Department Minahasa Regency Workers that they have a role to tackling unemployment namely: by creating labor professional as needed market and skilled, as well as creating employment, and becoming facilitator to provide information employment for job seekers.
Figure 2. Conceptual Framework for an Optimal Labour Market Information System: Final James F. Woods Christopher J. O’Leary [3].

From Figure 2 Show the result of the concept based show the detail that this Information system must Providing convenience to candidates labor in getting information regarding Procedures, Requirements, and also Completeness in Admission Selection Prospective new workers. The Website must also Providing convenience to the organizer of recruiting prospective workers work in Delivering Information as well as the requirements for selection Recruitment of prospective workers and the system able to display participant's information that has been received at a company. The final product information system for employee screen can be see from this picture below.

Figure 3. login as job seeker and company.
On the figure 3 explain the register screen after download the application from mobile phones. The screen consist of how to login as a job seeker/employee and also the company that needed labor.

![Figure 4. Company registration.](image)

Figure 4. shows the registration form. Company need to complete some data to be able to registered on the system.

![Figure 5. Student registration.](image)

Figure 5 display the student (job seeker) registration form. The user who wants to use the system have to filled some data in order to recognize while enter the system.
Figure 6 is the interface for Government on PC. Government wills easily acess the data with that kind of display then the statistics of job seeker why applied for job shows clearly on the screen.

Figure 7. User Interface for Government on PC list of the job seeker.

The trial was conducted in two stages, namely the trial by makers / programmers and trials against user.
Table 1. Application testing result.

| No | Mobile menu | Details result |
|----|-------------|----------------|
|    | Main Page Information System Website Recipient of Prospective Workers |                        |
| 1  | Home Screen | Walk in accordance with design. Page can smoothly opened |
| 2  | Register Screen | Walk in accordance with design. There are two options inside is the registrar as a vacancy provider and Labor candidates |
| 3  | Procedure | Walk according to the draft. Can be opened with smoothly. The page contains the procedure registration and use information Systems |
|    | Admin page on website system |                        |
| 1  | Login | Going according to the design. Login must be entered username and password are already registered. When the login process will successfully be directed to user pages according to type user |
| 2  | Job seeker setting | Walk according to the draft. Applicants can list displayed, and deleted |
| 3  | Job offer setting | Walk according to the draft. The process of adding, edit and delete news vacancies can be run |
| 4  | Company setting | Walk according to the draft. Can display edit, add and delete company data |
| 5  | Statistics | Working according the design. All the statistics details can be shown |
|    | Company page Information System for Job seeker and Company |                        |
| 1  | Login job seeker | Going according to the design. Login must be entered username and password are already registered. When the login process will successfully be directed to user pages according to type user |
| 2  | Apply job for employee | Walk according to draft can send job vacancy information |
| 3  | Edit profile/edit skill | Walk according to the draft can display and edit company details |
| 4  | Login Company | Going according to the design. Login must be entered username and password are already registered. When the login process will successfully be directed to user pages according to type user |
| 5  | Input job offers | Walk according to the draft. The process of adding, edit and delete news vacancies can be run |
| 6  | Edit profile/edit job offers | Walk according to the draft. The process of adding, edit and delete news vacancies can be run |

Table 1 describes the result of the application testing. The developed application was tested by selected participants. There were some criteria specified the system which are Main Page Information System Website Recipient of Prospective Workers, Admin page on website system and Company page Information System for Job seeker and Company. The result shows that the system was running smoothly without any significant obstacle.
4. Discussion
Job vacancy information desperately needed by seekers work, a lot of information can increase opportunities for get jobs according to your interests which are owned. Searching for information job vacancies can be done by using various technology and socializing with various circles can add up references regarding work are want to be sought, therefore, Dinas Manpower Minahasa Regent must created a site for labor market information so it can expanding labor market information for the sake of increase work productivity from the job seeker. Unemployment simply cannot totally wiped out in time short, but at least it can be suppressed so that the state of the economy can stable. To overcome the problem this unemployment needed the role of government, because the government has a big influence towards the problem of unemployment which is there is. See the impact caused from the problem of unemployment that can result in an economy disturbed area. Job information system for the Minahasa Regent help the job seeker to find suitable job information, with the flexibility of the website will help the government to mapping the unemployee that needed a job.

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