SMARTLOKER APPLICATION DEVELOPMENT JOBS IN UTILIZING TALENT SOLUTION API-BASED ANDROID

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ABSTRACT

Some large or small companies in Indonesia provides information on job vacancies. a large number of students certainly can influence the number of graduates each year. Search job vacancies to be one of the problems for students who recently completed a study in College due to still do not have work experience so that they were obliged to find work that is completely in accordance with the criteria owned. In addition the prospective workers and companies have difficulties in job information, namely the difficulty of prospective workers in finding jobs that match their skills and desirable criteria, the difficulty of companies looking for prospective workers that fit with the job offer, prospective workers and companies information about difficulty in finding jobs. Based on the issue so deduced Talent Solution GPS API and can be used to recommend jobs based on your desired criteria prospective workers, besides the prospective workers can also find out the job location recommendations the nearest work between prospective workers with the company. Based on the results of testing using Black Box methods can be concluded that the application smartloker: jobs help recommend job vacancies according to desired criteria of expertise and the prospective worker and help companies looking for prospective workers that fit the job offer.

Kata Kunci: Job Vacancies, Rekomendasi, Android, Smartphone, Talent Solution API, GPS

1. INTRODUCTION

1.1 Background

In some cities, especially in the developed cities in the economy and the population, a large number of students certainly can influence the number of graduates each year. Search job vacancies to be one of the problems for students who recently completed a study in College due to still do not have work experience so that they were obliged to find work that is completely in accordance with the criteria owned [1]. Based on surveys of the Central Bureau of statistics (BPS) Indonesia year 2017 can be seen that the number of unemployment in Indonesia in the year 2017 votes reached the lowest point since the year 2016. Indonesia's Ministry of manpower noted the number of unemployment in the year 2016 reached 5.61 percent or approximately 125.44 million people, lower than the year 2017, i.e. of 5.50 or equivalent to 128.06 million people [2]. Some large or small companies in Indonesia provides information on job vacancies through print media such as newspapers, have also announced job pakerjaan through the Bulletin Board as well as through electronic media including the internet. Jobs are the most banayak searched by job seekers is the latest jobs and have not passed the last time registration. This will be a hardship for job seekers if the mechanism of implementation of the information management jobs from the related company did not go well. Until now there have been many providers work to provide information technology jobs to job seekers. Some companies have leveraged stock jobs that exist on the internet. Information system of existing jobs is still using a search based on the attribute of each request and there has been no management of the profile data from a provider of employment and job seekers. This will complicate the job providers in screening the prospective applicants who have applied for. Although many applicants who apply, but only few applicants in accordance with the provisions of the company. This is due to the lowngan information system has yet to utilize data profiling job seekers and job providers to get the best job seekers and recommendation jobs that match the interest of job seekers.

Along with the development of technology and information in the field of mobile devices especially android very rapidly, problems experienced by providers of employment and job seeker should be able to paste. With android technology providers work will get ease in the face of competition. With some of the technology that will be used (Talent Solution to simplify the API of the potential job seekers get the job in accordance with the wishes of the prospective workers [3] and GPS to find out the nearest location between would-be workers with company the direkomendsikan by Talent Solution fire, therefore, to resolve the problems that have been described, then the author build a system recommendation smartloker in utilizing Talent Solution android-based API, which is expected to be

hosts information related to the Office that opened the job vacancies and job seekers will get ease in finding job postings that match the criteria required the owners of the field work.

The point of writing this final task is to build the application smartloker jobs in utilizing Talent Solution android-based API.

1. Help prospective workers in finding jobs that match their skills and the desired criteria.
2. Help companies find prospective workers that fit the job offer.
3. Help prospective workers and companies in search of information about the locker using the android smartphone.

2. THEORETICAL BASIS

The Foundation theory explains some of the theories and explanations with regard to the application or the media that will be built. The cornerstone of the theory used in penyususnan applications of recommendation system jobs utilizing Talent Solution android-based API. Understanding Android Mobile Application, Understanding, Understanding Java API Solution, Tarento, GPS, UML. The cornerstone of the theory is a very important thing because of the absence of grounding theory then research done does not have a solid foundation for solving existing problems.

2.1 Android OS

Android is an operating system for linux-based mobile devices that includes an operating system, middleware and applications. Android provides an open operating system for developers to create applications for Android is released to the public in 2008. Android is very rapidly growing industry because the two main aspects of IE are opensource and arsitekturya models. As a project that is opensource, Android allows for fully understood and analyzed regarding features, settlement on the bugs of the program until the hardware [4].

2.2 Talent Solution API

Cloud Talent Solution is a service that presents a learning experience for a job search, returning the results to the high-quality job seekers far exceeded the limit keyword-based method. Once integrated with the content of the work, the Cloud Talent Solution automatically detects and incorporates various types of data, such as titles, seniority, and industry [3]. In addition to the underlying search technology, Cloud Talent Solution includes several default features, such as:

1. Jobs are indexed using structured fields to better represent the content of the work.
2. preferred Mode of transit search for jobs based on travel time
3. The number of histogram work in a variety of different aspects.
4. displays the update jobs.

5. The optimization results of passive job seekers for the email notification.
6. Find a job in a variety of languages.
7. The title suggested for the autocompletion and the work is specifically open in corpus of work.
8. Correction of spelling, the introduction of the company, job enrichment, and more.

2.3 Global Possition System

The global positioning System is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the United States Department of defense was first introduced in 1978. GPS services formerly used only for military purposes but are starting to open to the public. 24 GPS satellites that are approximately 12,000 miles above the Earth is moving around the Earth in 12 hours at speeds of 7,000 miles per hour. GPS satellites measuring the energy of sunlight, have a battery backup to keep running at the time of the Eclipse of the Sun or at a time when there is no solar energy and has a small booster rocket on each satellite to be orbiting the right kind in place [5].

3. SYSTEM ARCHITECTURE

3.1 Analysis of System Architecture

Analysis of system architecture aims to illustrate how a system sending request data as well as how the system sends the response to the requested data until it gets to the user. Users use smartphone hardware as a medium to access the application.
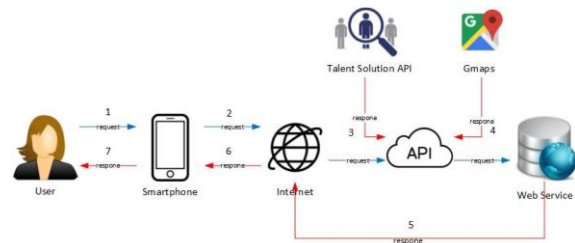

Figure 1 Architecture System

From the picture above may request the data flow is known to occur from user applications to application users get the data requested are as follows:

1. mobile device users request data to the web server
2. The Web server receives the request and determines the type of request data being requested
3. If the web server receives a request for a recommendation through that server location Google Maps URL of invoke to get the coordinates.
4. Google Maps sends the results of the respone to the server.
5. If the web server receives a request data then the web server will take the existing data in the database.

6. If the web server receives a request that server jobs recommendations calling URL Talent Solution to get the data recommendations.
7. Talent Solution send respone to the server.
8. when the web server receives the requested data, the data will be returned in the form of JSON for processing mobile device users.

3.2 Analysis of Talent Solution API Technology

The use of the Talent Solution built on systems that FIRE is important because without the use of this API application can not run properly. And for the use of this API requires Talent Solution internet connection to load the data. Case the user Talent Solution FIRE:

1. Applicants do register on the system via the android smartphone. Applicants who have done registration can already login keaplikasi.
2. Applicants search jobs via Talent Solution FIRE and then the system will recommend the jobs that match the CV of applicants so that the obtained results are in accordance with the recommendation of expertise or the criteria contained in the CV the applicants thus obtained as a result.
3. Help the applicants get recommendations from Talent Solution fire and applicants can search the nearest distance between applicants and the company, and the system will menampilakan job recommendation according to the nearest distance, by means of detecting CV applicants that comply with the criteria of expertise and the CV of applicants.

3.4 Analysis of GPS Technology

GPS reciver retrieve information with the calculation of triangulation to calculate the location of the user correctly and then compare the time signals sent by the signal time received. Based on the information it can be known how satellite distance, with known distance GPS reciver satellite can perform calculations and determine the position of the user and display electronic map. Example use case GPS:

1. Applicants do register on the system via the android smartphone. Applicants who have done registration can already login keaplikasi.
2. Applicants who would like to see a job through the site recommendation between the applicant and the company. Along with the positions of the applicants information sought by the embedded GPS will be sent to Talent Solution.
3. Talent solution GPS API and will seek the nearest antecedent companies in accordance with the criteria of the applicants. Search nearby companies do with the nearest distance calculation between the applicants who seek recommendations and position the company in the search company's reach around the position of the applicants.

3.5 Analysis of Job Vacancies Recommendations

Analysis of recommendations Jobs utilizing Talent Solution FIRE and GPS to determine the nearest jobs are recommended by the system..
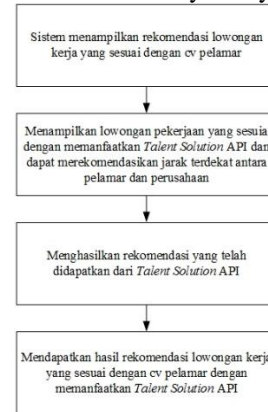

Figure 2 Analysis of Job Vacancies Recommendations

1.4 Software Implementation

Software Implemetation contains the minimum software requirements that must be met by the user. The following are the software requirements needed:

Table 1 Software Implementation

No	Kebutuhan Perangkat Lunak
1	Sistem operasi android minimum versi 5.0 Lollipop
2	Smartphone dapat terhubung ke internet
3	Dapat mengaktifkan GPS

1.5 Hardware Implemetation

The system requires hardware smartphone users with the following minimum terms:

Table 2 Hardware Implementation

No	Kebutuhan Perangkat Keras
1	Prosesor QuadCore, 1.2GHz
2	RAM minimum 1 GB

3.6 Usecase Diagram

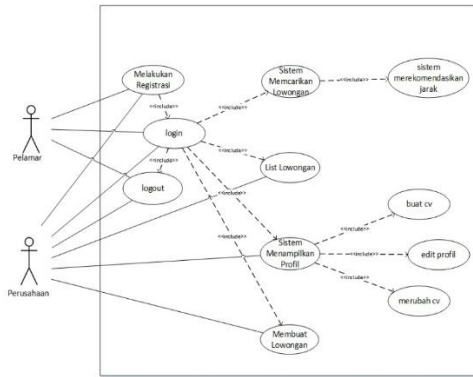Here is a use case diagram that is designed for applications that will be built:

Figure 3 *Usecaase* **Diagram**

1.6 Activity Diagram

Below is one example of the activity diagram of the system is built.
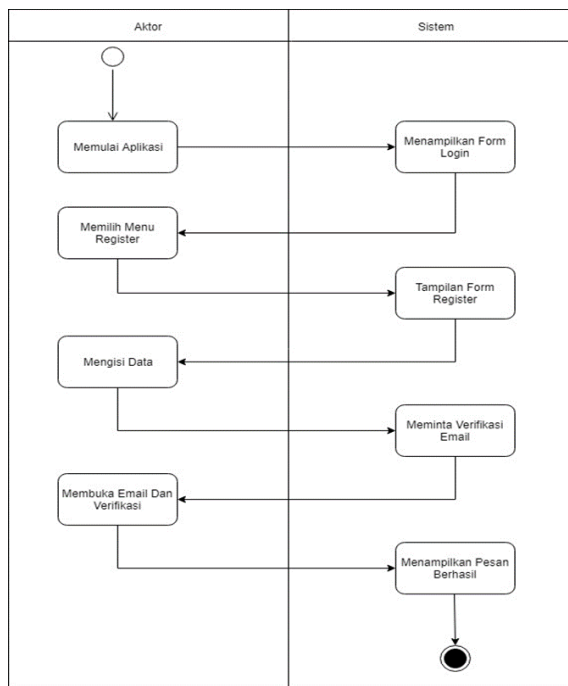

Figure 4 Activity Diagram User Registration

1.7 Interface Design

Interface design aims to provide an overview of the applications that will be built. This design is implemented into a program that is intact and can be used by users of the system. Application development interface design recommendation system jobs are as follows:

1. Login Interface Design

Here is a picture of 5 which describes the design of the interface of the login.
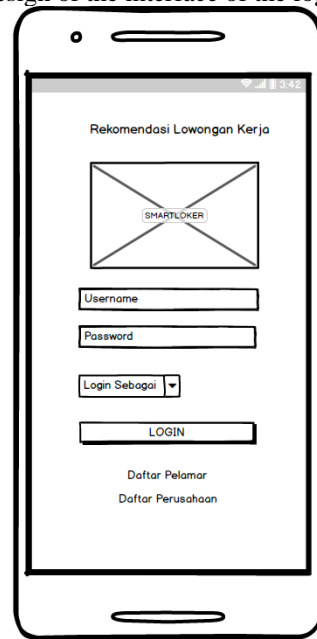
Figure 5 Login Interface

2. The design of the interface of home applicants Here is a picture that illustrates the interface design 6 applicants.
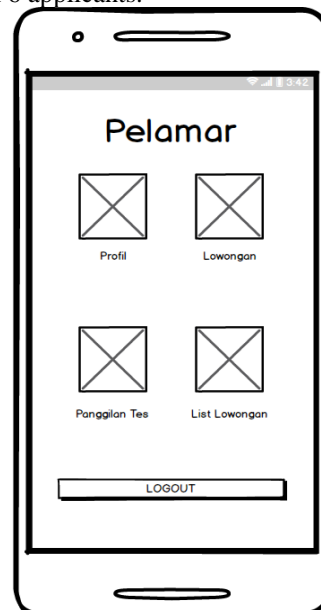

Figure 6 Applicants Home Interface

3. The design of the interface of the list of applicants Here's a figure 7 which depicts the design oft he interface of the list of applicants.
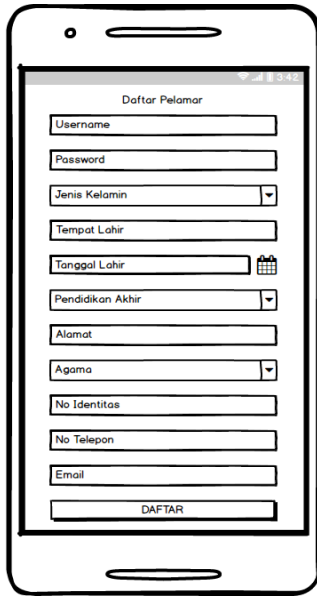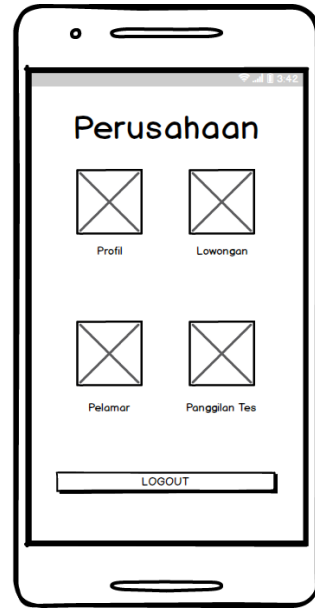
Figure 7 Applicants Register Interface

4. The design of the interface list of companies Here is a figure 8 illustrating the design of the interface list of companies.
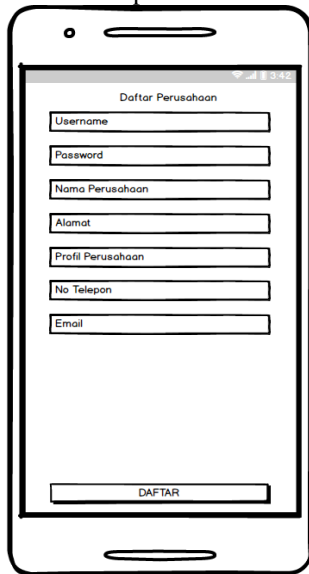

Figure 8 Company Register Interface

5. Interface design company home Here is a picture that illustrates the design interface 9 home company.

Figure 9 Company Home Interface

3.7 Menu Structure

The design of the structure of the menu is the description of the application usage path so it is easy to understand and easy to use. The design of the menu structure of the software is as follows:

1. The Menu Structure Of The Mobile Platform Applicants Here is a picture of the menu structure of the Mobile Platform 4 Applicants:
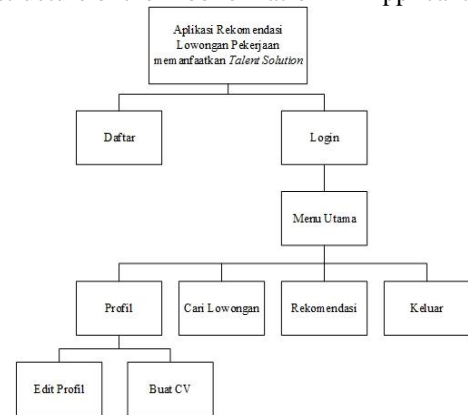

Figure 10 MenuStructure Of Applicants Mobile Platform

2. Menu Structure The Company's Mobile Platform Here is a picture 5 menu structure the company's Mobile Platform:
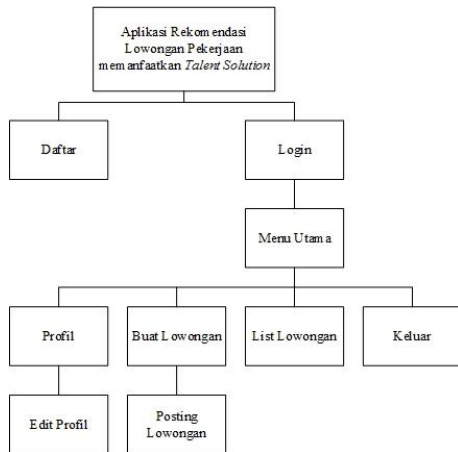
Figure 11 MenuStructure Of Company Mobile Platform

2. IMPLEMENTATION AND TESTING

4.1 Interface Implementaion

Interface implementation is done on every page of the system being built. Here is an implementation of an interface system that built and differentiated between interface for Applicants and companies.

1. Implementation of interface of applicants The implementation of an interface on a system that addressed to applicants can be seen in table 3.

Table 3 Implementation of Applicants Interface

No.	Menu	Deskripsi	Nama File
1.	Melakukan Register	Halaman yang digunakan oleh pengguna sistem untuk daftar masuk ke dalam sistem.	RegisterActivity.java
2.	Melakukan Login	Halaman yang digunakan oleh pengguna sistem untuk dapat masuk ke dalam sistem.	LoginActivity.java
3.	Melakukan Edit Profil	Halaman yang digunakan jika pengguna melakukan edit profil.	EditProfilActivity.java
4.	Melihat Detail Lowongan	Halaman yang digunakan untuk melihat detail lowongan pekerjaan.	LowonganDetailActivity.java

No.	Menu	Deskripsi	Nama File
5.	Melihat List Lowongan	Halaman yang digunakan untuk melihat list lowongan pekerjaan.	LowonganListActivity.java
6.	Melihat Profil Pelamar	Halaman yang digunakan untuk melihat profil pelamar.	ProfilPelamarActivity.java

2. The implementation of an interface company Implementations of interfaces in the system are addressed to the company can be seen in table 4.

Tablel 4 Implementation of Company Interface

No.	Menu	Deskripsi	Nama File
1.	Melakukan Register	Halaman yang digunakan oleh pengguna sistem untuk daftar masuk ke dalam sistem.	RegisterActivityPerusahaan.java
2.	Melakukan Login	Halaman yang digunakan oleh pengguna sistem untuk dapat masuk ke dalam sistem.	LoginActivity.java
3.	Melihat Profil Perusahan	Halaman yang digunakan jika pengguna melihat profil perusahaan.	ProfilPerusahaanActivity.java
4.	Melakukan Lowongan Pekerjaan	Halaman yang digunakan untuk melakukan lowongan pekerjaan.	LowonganActivity.java

4.2 Testing Result

Blackbox testing results conducted will be entered into a table where the table can be seen at the conclusion of the results obtained from tests done whether successful or not.

1. Login Testing Result

Table 5 Login Testing Result

Kasus dan Hasil Uji (Data Benar)			
Data Masukan	Hasil yang diharapkan	Pengamatan	Kesimpulan
Username: bagja Password: bagja	Sistem Menampilkan menu utama	Tampil Menu Utama	Diterima
Kasus dan Hasil Uji (Data Salah)			
Data Masukan	Hasil yang diharapkan	Pengamatan	Kesimpulan
Username:{kosong} Password:{kosong}	Sistem menampilkan pesan "username atau password tidak boleh kosong".	Tampil pesan "username atau password tidak boleh kosong"	Diterima

2. Register Testing Result

Table 6 Register Testing Result

Kasus dan Hasil Uji (Data Benar)			
Data Masukan	Hasil yang diharapkan	Pengamatan	Kesimpulan
Nama Pengguna: bagja Email: bagja@gmail.com Password: bagja	Sistem menampilan pesan "Data akun berhasil tersimpan"	Tampil pesan "Data akun berhasil tersimpan"	Diterima
Kasus dan Hasil Uji (Data Salah)			
Data Masukan	Hasil yang diharapkan	Pengamatan	Kesimpulan
Nama Pengguna: {kosong}	Sistem menampilan pesan "Lengka	Tampil pesan "Lengkapi data akun"	Diterima
Email: {kosong} Password: {kosong}	pi data akun"		

3. CONCLUDING

5.1 Conclusion

Based on the results of the testing system software Recommendations Jobs obtained following conclusion:

1. Software can help prospective workers in finding jobs that match the skills or the desired criteria.
2. The company's software can search for prospective workers that fit the job offer.
3. The software can be prospective workers and companies in search of information about job vacancies using the android smartphone.

5.2 Suggestions

Software recommendation systems jobs be built focusing on the recommendation of the appropriate job vacancies with skills or criteria desired by prospective workers, facilitate the company looking for prospective workers in accordance with the jobs offered by companies, and facilitate prospective workers or companies seeking information about jobs. Therefore there are some suggestions that can be used as a guide to software development towards a better growth in support of the users of this software. as for the suggestion to the development of software that is:

1. Develop a Platform that can be supported by the software given the current can only be used on the android platform.
2. New features for the site between companies with potential workers to facilitate the prospective workers heading to the location where the company.

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