

## Web-Based Alumni Tracking Application Using Laravel Framework

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**ABSTRACT:** Career tracking and delivery of job vacancies for alumni are considered less effective because they are still done manually by contacting alumni via sms or telephone which has problems such as many alumni who change phone numbers frequently so that it is difficult to track alumni careers and also difficulties in conveying information when there are job offers from the industry. So to solve these problems, the school needs an information system that can help improve the performance of the Special Job Exchange Departement.

**KEYWORDS:** alumni, career, industry

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### I. INTRODUCTION

Information technology is applied in various fields of life such as in the economic, social, cultural, and in the world of education. In the field of education, information systems are applied both for school management and for the learning process. Optimal use of information technology can have a positive impact that can support the development of the world of education. Information technology that is accurate and easily accessible is useful for improving the performance of academic activities that take place in an education unit. To realize good education, Indonesia implements three educational pathways consisting of formal, non-formal and informal education (Law No. 20 of 2003). One of the formal education in secondary education is Vocational High School.

Vocational High School is a formal education that is very useful to prepare students to meet the needs of workers in the industrial world. Students who have graduated from Vocational High School are expected to be able to work in accordance with the field of interest. This is in accordance with Law Number 20 of 2003. Open unemployment data until 2015 by the Central Statistics Agency continues to increase, especially at the Vocational High School level. Some Vocational High School graduates who have not found a job are due to a lack of information about the world of work.

Increasing public interest in Vocational High Schools. This fact must be balanced with improving the quality of Vocational High Schools. One of them is providing information about the world of work for students. In this digital era, the flow of information is so fast. This can be used by Vocational High Schools to distribute information, especially related to the world of work. Distribution of work information in Vocational High Schools is still done manually and not centralized. According to Yusan, as the Special Job Exchange team at one school, so far the distribution of information to alumni is only by using social media, sms or telephone to the alumni number concerned. The alumni phone number is obtained from a questionnaire distributed by the Special Job Exchange team when students are in class XII.

This web-based alumni information system was created to overcome the problems that occur in Vocational High Schools in order to facilitate the work of the Vocational High School Special Job Exchange in tracking alumni and distributing job vacancies information to alumni.

### II. WATERFALL METHOD

The system development method is a method or method used by the author to make it easier for the author to make a system development. In the waterfall method, the author feels that this method is very suitable to be used because the steps are very flexible to evaluate each step.

a. *Waterfall Method*

The waterfall method is one type of application development model and is included in the classic life cycle, which emphasizes sequential and systematic phases. For the development model, it can be analogous to a waterfall, where each stage is carried out sequentially from top to bottom.

So, for each stage should not be done simultaneously. Thus, the difference between the waterfall method and the agile method lies in the SDLC stage. This model is also included in software development which is somewhat less iterative and flexible. Because, a process that leads in one direction is like a waterfall.

This model is an approach to systematic software development, with several stages, namely: System Engineering, Analysis, Design, Coding, Testing, and Maintenance.

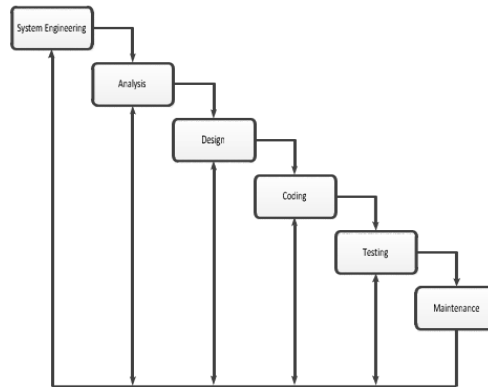


Fig. 1. Waterfall Method

b. *Data Collection Method*

The techniques used to compile this research are:

a. Interview (interview)

That is the method of collecting data by holding questions and answers with the school.

b. Observation (Direct observation)

A method of collecting data by making direct observations at SMK Negeri 10 Semarang.

c. Literature review.

Studying literature books and the results of related research. Research Methods.

III. RESULT AND DISCUSSION

1.1 SYSTEM IMPLEMENTATION

a. Admin

• Alumni Data Processing

Alumni data processing is one of the features on admin access rights. This page displays all alumni data. Admin can add data, edit data and delete alumni data.

NO	NAMA	JURUSAN	TAHUN LULUS	No HP/Whatsapp	PEKERJAAN	NAMA PERUSAHAAN	NAMA UNIVERSITAS	Aksi
1	Wahyu Prastio	Rekayasa Perangkat Lunak	2017	0896969	Mahasiswa	-	Universitas Stikubank Semarang	Profil, Edit, Delete
2	Duncan Richard	Teknik Kendaraan Ringan	2017	0895758	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
3	Agung	Teknik Konstruksi Kapal Baja	2017	0895689	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
4	Maulana	Teknik Kendaraan Ringan	2017	0898975	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
5	Revan Ibnu Santosa	Teknik Instalasi Permesinan Kapal	2017	08754612357	Guru	-	Universitas Negeri Semarang	Profil, Edit, Delete
6	Bella Pinky Anggaraini	Teknik Pengelasan	2017	08754612357	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
7	Wina Adinda	Nautika Kapal Niaga	2017	089696969	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
8	Gurit Indra Purnama	Teknik Sepeda Motor	2017	089696969	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
9	Anisa Dita	Rekayasa Perangkat Lunak	2017	08754612357	Mahasiswa	-	Universitas Negeri Semarang	Profil, Edit, Delete
10	Upasara Timur	Teknik Sepeda Motor	2017	0865486542	Manager	PT. Agung Cubs Group	Universitas Negeri Semarang	Profil, Edit, Delete

Fig 2. Processing alumni data

- **Job Data Processing**  
On this page the admin can add, edit and delete job data.

NO	NAMA PERUSAHAAN	JUDUL	TANGGAL POSTING	AKSI
1	PT.ABC	Isi Post Pertama	08 Dec 2020	[View] [Edit] [Delete]
2	PL.YAAPTECH	Isi Post Kedua	08 Dec 2020	[View] [Edit] [Delete]
3	ABC123	Judul ke 3	08 Dec 2020	[View] [Edit] [Delete]
4	ACDC	Judul ke 4	08 Dec 2020	[View] [Edit] [Delete]
5	CDAD	Judul ke 4	08 Dec 2020	[View] [Edit] [Delete]
6	PT.Asd	Judul ke 5	08 Dec 2020	[View] [Edit] [Delete]
7	PT.AGUNOCUBS	Isi Post Pertama	08 Dec 2020	[View] [Edit] [Delete]
8	PT.Jaya Abadi	Lowongan Baru	10 Dec 2020	[View] [Edit] [Delete]
9	PT.Lowongan	Isi Lowongan	10 Dec 2020	[View] [Edit] [Delete]

Fig 3 Job Vacancies

- **View Report Information**  
This page is divided into 4 sub menus, namely a list of alumni who have not worked, a list of alumni who are currently studying, a list of alumni who are working and a recap of reports.

NO	NAMA	JURUSAN	TAHUN LULUS	No HP/Whatsapp
No data available in table				

Fig 4. List of Unemployed Alumni

NO	NAMA	JURUSAN	TAHUN LULUS	UNIVERSITAS	No HP/Whatsapp
1	Wahyu Prastio	Rekayasa Perangkat Lunak	2017	Universitas Stikubank Semarang	0896969
2	Duncan Richard	Teknik Kendaraan Ringan	2017	Universitas Negeri Semarang	0895758
3	Agung	Teknik Konstruksi Kapal Baja	2017	Universitas Negeri Semarang	0895689
4	Maulana	Teknik Kendaraan Ringan	2017	Universitas Negeri Semarang	0898975
5	Bella Plinky Anggaraini	Teknik Pengelasan	2017	Universitas Negeri Semarang	08754612357
6	Wina Adinda	Nautika Kapal Niaga	2017	Universitas Negeri Semarang	089696969
7	Gurri Indra Purmana	Teknik Sepeda Motor	2017	Universitas Negeri Semarang	089696969
8	Anisa Dita	Rekayasa Perangkat Lunak	2017	Universitas Negeri Semarang	08754612357
9	Sul Khan Alfareza	Teknik Pengelasan	2017	Universitas Negeri Semarang	089696969
10	Jojo Richard	Teknik Instalasi Pemesinan Kapal	2018	Universitas Stikubank Semarang	087456123

Fig 5. List of College Alumni

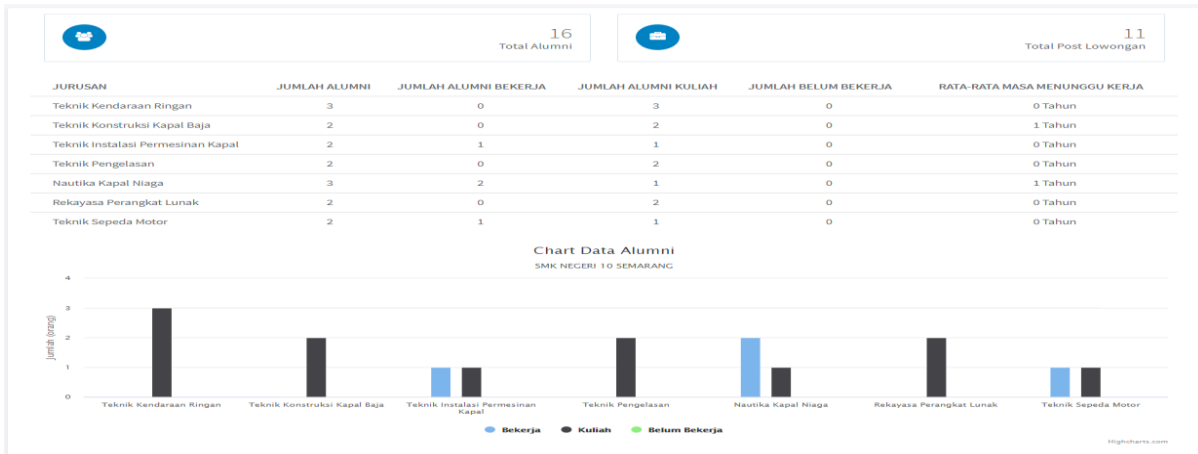


Fig 6. Report

b. Alumni

- Alumni Dashboard

The alumni dashboard page is the initial view that is accessed after alumni log in.

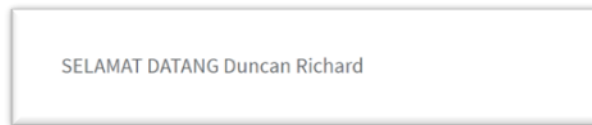


Fig 7. Alumni Dashboard

- Job Information Page

On this page alumni can see job vacancy information that has been input by the admin.

NO	NAMA PERUSAHAAN	JUDUL	TANGGAL POSTING	AKSI
1	PT. ABC	Ini Post Pertama	08 Dec 2020	[icon]
2	PT. YAAPTECH	Ini Post Kedua	08 Dec 2020	[icon]
3	ABC123	Judul ke 3	08 Dec 2020	[icon]
4	ACDC	Judul ke 4	08 Dec 2020	[icon]
5	CDAD	Judul ke 4	08 Dec 2020	[icon]
6	PT. Asd	Judul ke 5	08 Dec 2020	[icon]
7	PT. AGUNG CUBS	Ini Post Pertama	08 Dec 2020	[icon]
8	PT. Jaya Abadi	Lowongan Baru	10 Dec 2020	[icon]
9	PT. Lowongan	Ini Lowongan	10 Dec 2020	[icon]
10	PT Yaaptech	Hiring Admin	06 May 2021	[icon]

Fig 8. Job Information Page

**Hiring Admin**  
PT Yaaptech

Wahyu Prastio  
06 May 2021

**WE ARE HIRING ADMIN**

- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola
- Menyusun dan mengelola

Dicari admin  
hubungi 087927173

Fig 9. Job Detail Page

## 1.2 SYSTEM TEST

TABLE 1. ALUMNI TRIAL


Test Case	Test Step	Actual Results
Menu List	Click the list menu	Display registration form.
Login menu	Click the Login menu	Login page view
Dashboard page menu	Login by entering your email and password	Dashboard page view
Job page menu	Click the job menu	Job page view
View Job Details	Click icon 	Job details page view
My profile page menu	Click my profile menu	View my profile page
logout	Click the logout menu	Log out of the system.

Table 2. Admin Trial

Test Case	Test Step	Actual Results
Homepage	Program preview	Homepage display.
Login menu	Click the Login menu	Login page view
Dashboard Menu	Login by entering your email and password	Display Dashboard page
Alumni menu	Click the alumni menu	Show alumni page
Job menu	Click the job menu	Show job page
Menu list of alumni who have not worked	Click the menu for the list of alumni who have not worked	Displays the list of alumni who are not yet working
Menu list of alumni who study	Click the menu for the list of alumni who are studying	Displays a list of alumni who are studying
Report Recap Menu	Click the Recap report menu	Displays the report recap page
logout	Click the logout menu	Log out of the system.

## IV. CONCLUSION

After doing the design and research on the alumni information system of the 10 Semarang State Vocational High School which has been listed above. So it can be concluded that a web-based alumni information system using the Laravel framework was built according to the problem and became a solution for the Vocational High School Special Job Exchange.

This information system can facilitate the Vocational High School Special Job Exchange in tracking alumni careers and also facilitate the distribution of information to alumni if there are job vacancies from the industry.

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