IJCT (International Journal Computer Technology)
Vol. 1., No. 1, April 2025, pp. 22-28

p-ISSN : xxx.xxx,e-ISSN:xxx.xxx
https:// https://ijct.indiepress.id/index.php/ijct/

DESIGN AND DEVELOPMENT OF JOB VACANCY INFORMATION WEBSITE USING EMPLOYMENTROAD PLATFORM

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Received 02 April 2025; Revised 10 April 2025 ; Accepted 13 April 2025

ABSTRACT

This study focuses on the development of a job vacancy information website using the Employment Road platform. It aims to identify the challenges and opportunities in implementing this technology, as well as how the platform can facilitate relationships between job seekers and employers. The methods used include market needs analysis, system design, and user experience testing to ensure the website is both effective and efficient. The results show that the platform has successfully increased the accessibility of job vacancy information, though some technical challenges remain. In conclusion, the study finds that Employment Road holds great potential for transforming the dissemination of job vacancy information in the digital era.

KEYWORD
Employment Road,
Job Vacancy Information,
Website Development,
Case Studies,
Implementation

1. Introduction

In the digital era, access to information is a crucial factor in job searching. Websites that provide job vacancy information play a vital role in bridging the gap between job seekers and companies [1], [2], [3]. The Employment Road platform offers a solution to streamline this process by providing an integrated and user-friendly system. This study aims to explore the development and implementation of job vacancy information websites using the Employment Road platform, and to analyze its effectiveness through a case study.

2. Literatur Review

Lal, Radhika et.al (2010). Public works and employment programmes have long been considered a staple of social assistance. For the most part, though, they have been designed as short-term safety nets. While, in some cases, the focus has also been on reducing poverty or addressing structural unemployment challenges, their implementation has seldom been on a scale that would make a dent in structural poverty. The paper also explores the complementarities and interactions with various social assistance and cash transfer programmes with a view to fostering a more comprehensive approach to social protection for the poor. The paper concludes with a section on implementation issues with a view to strengthening learning on how to plan, design and implement long-term and Employment Guarantee types of public employment programmes [4].

Samruddhi Suresh Khandare et.al (2017). The digital world that we stand today is due to the different advancements in automations and sciences, modernizations and latest innovations. At present, each and every country wishes to be totally digitized so that the nation will be legitimized in a superior way. The term Digital India depicts the concern of using the various Information and Communication Technologies (ICT) such as mobile phones, personal computers, Tabs, televisions, etc. The Digital India Campaign is the visionary venture of the Indian Government to revamp our country into smart, economy cautious and digitally legitimized nation. The Government of India wishes to rebuild India with excellent and acceptable administration for the citizens and by creating co-ordination and synchronization of responsibilities among the citizens. The Digital India Campaign aims in connecting the people of India digitally and to transfer the various Government services and programs with the help of ICT [5].

Jinbao Zhao et.al (2013). What influences Metro station ridership in China? Insights from Nanjing. China is undertaking one of the most ambitious rail expansions in the world. This paper investigated the impacts of factors on ridership within Metro stations' pedestrian catchment area (PCA) in Nanjing, China [6]. Direct

p-ISSN : xxx.xxx,e-ISSN:xxx.xxx
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ridership model was developed to explain the ridership at 55 Metro stations using a Geographic Information System (GIS) and multiple regression analysis. Independent variables included factors measuring land use, external connectivity, intermodal connection, and station context. Six variables were found to be significantly associated with Metro station ridership at the 0.05 level: population, business/office floor area, CBD dummy variable, number of education buildings, entertainment venues and shop centers [6], [7], [8]. Five variables were proved to be related to station ridership at the 0.01 significance level: employment, road length, feeder bus lines, bicycle park-and-ride (P&R) spaces, and transfer dummy variable. In particular, CBD dummy variable, the number of education buildings, entertainment venues and shop centers, and bicycle P&R spaces were found to be significantly connected to Metro station ridership in the present study. The results not only confirm some findings from previous studies but also show distinct differences regarding some variables specific to the Chinese context.

3. Methodology

This study employs a qualitative approach using a case study method. Data were gathered through user interviews and market analysis to identify the primary needs of a job vacancy information website. The development process encompasses design, coding, and system testing stages using the Employment Road platform [9]. Trials involving end users were conducted to evaluate usability, ease of navigation, and the effectiveness of the information presented.

Blackbox testing is used to evaluate the functionality of the system from the user's perspective, without examining its internal implementation. This testing primarily focuses on the CRUD (Create, Read, Update, Delete) functions available to the admin [10]. Testing involves simulating various usage scenarios, such as adding job vacancies, updating information, and deleting data. Each function is assessed to ensure that the system meets user needs and operates without errors in data management. Additionally, this testing evaluates the system's responsiveness to invalid input and identifies potential vulnerabilities.

4. Results and Discussion

4.1 Result

1) Testing System Employment Road

Testing of the Employment Road website was conducted using blackbox methods with State Transition Testing and Use Case Testing techniques. This approach examines how the application transitions between different states, such as from "login" to "logout." It also tests the application based on scenarios derived from actual user interactions. The testing explores how users interact with the system, including processes like logging in and registering

2) Database Design

Designed using a database management system called MySQL. MySQL is a relational database type that enables more efficient data management.

3) Employment Road Home Page

The homepage of Employment Road is designed to facilitate job searching for users. The primary focus of this page is to provide quick and easy access for users looking for employment. With features such as a prominent search bar and category filters, users can easily begin their search according to their preferences.

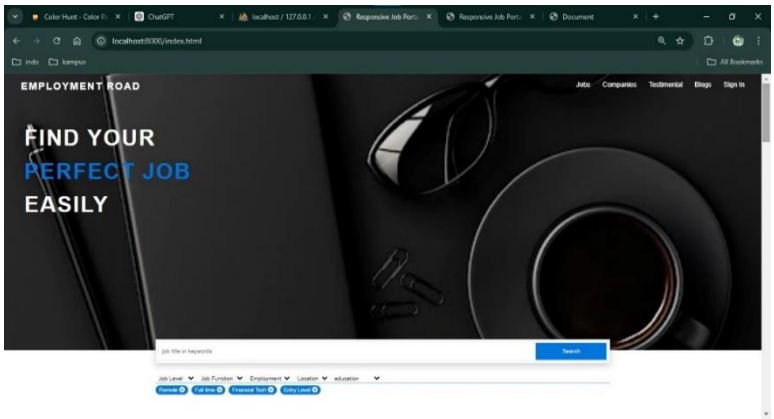

Fig. 1. Home Page

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4) Login Page

The login page of the Employment Road website is designed with simplicity and functionality in mind to ensure that users can access their accounts quickly and securely. Additionally, it facilitates users in applying for jobs on the Employment Road website.

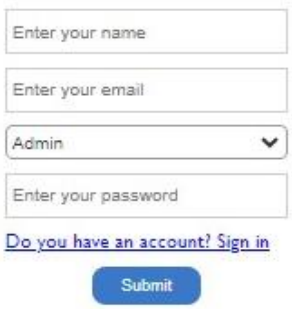

Fig. 2. Login Page

5) Company Page

Displays a list of companies with current job openings, while providing detailed information about each company. This page aims to help users gain a deeper understanding of the companies featured on the platform.

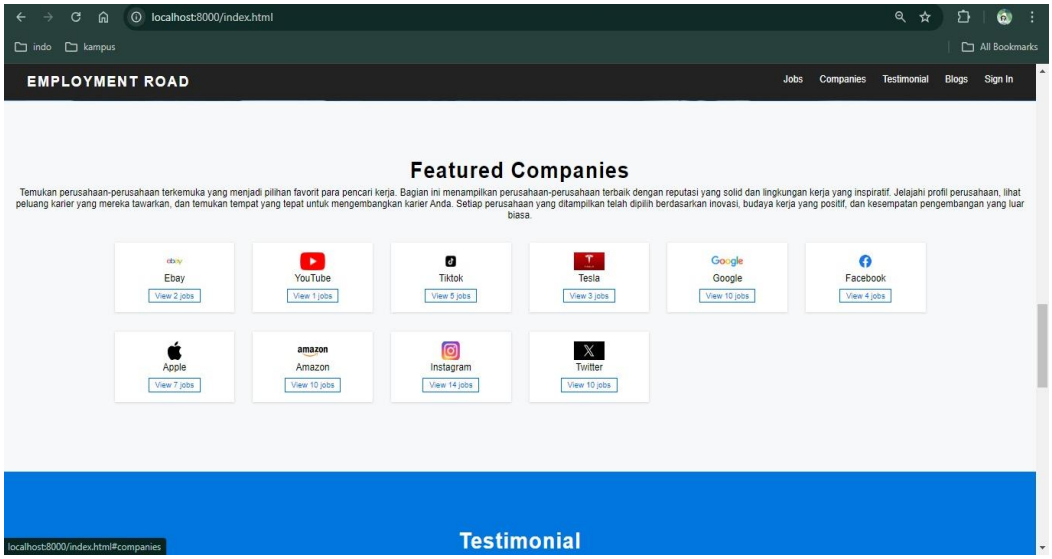

Fig. 3. Company Page

6) Testimonial Page

The Testimonials page of the Employment Road website is designed to showcase the experiences and reviews of users who have successfully found jobs or had positive experiences with the platform. This page aims to build trust among potential users and demonstrate the platform's success in assisting job seekers.

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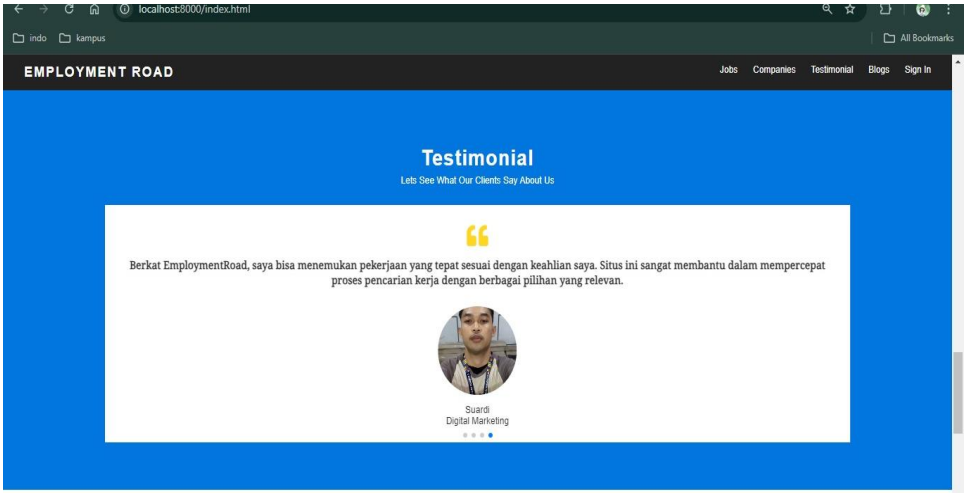

Fig. 4. Testimonial Page

7) Blogs Page

The Blogs page of the Employment Road website is designed to provide information, tips, and guides related to the job market, career development, and industry trends. This page serves as an additional resource for users looking to enhance their skills or gain insights into effective job searching strategies.

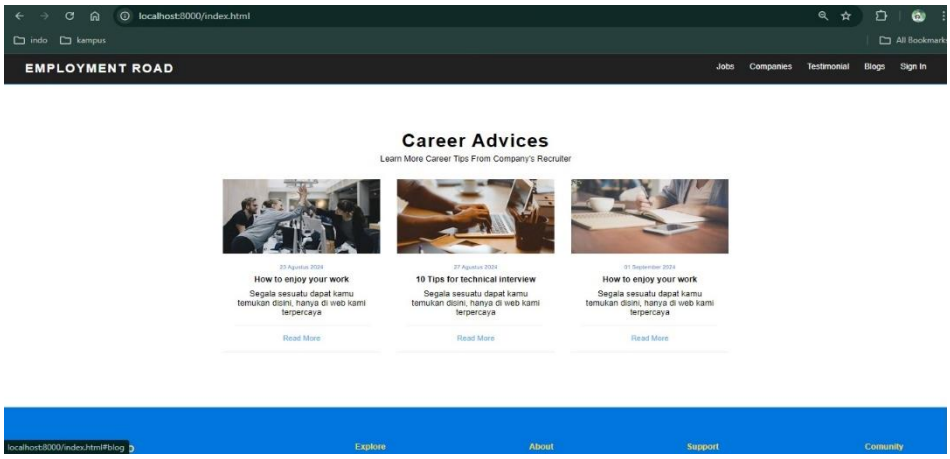

Fig. 5. Blogs Page

8) Admin Data Input Page

The Job Data Input page for administrators on the Employment Road website is designed to facilitate the addition, updating, and management of job information available on the platform. This page is functional and features intuitive elements to ensure that administrators can input data quickly and accurately.

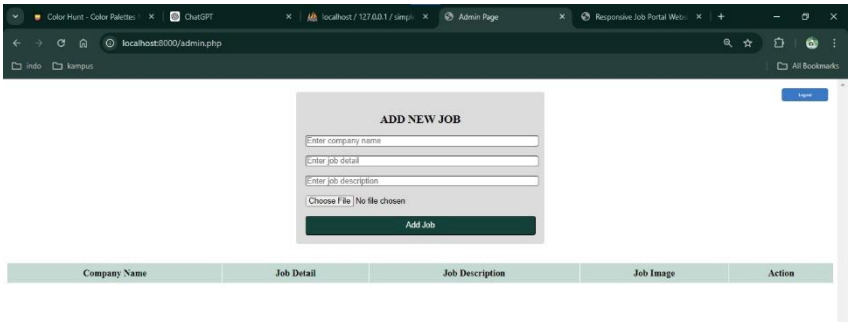

Fig. 6. Add New Job Page

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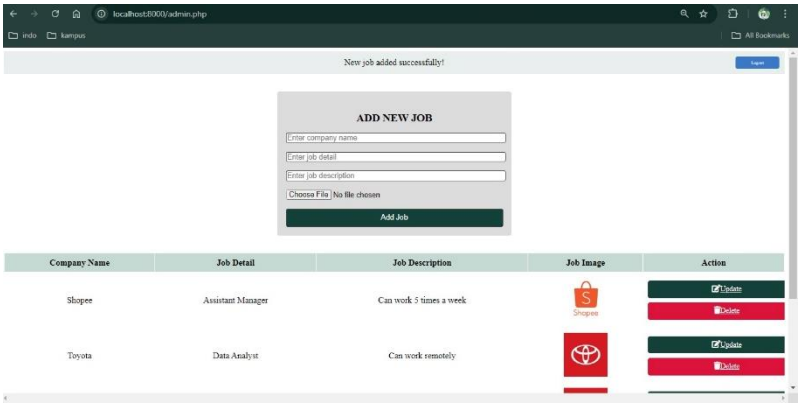

Fig. 7. Page Continuation of Add New Job

9) Admin Database Page

The Admin Database page on the Employment Road website, connected with phpMyAdmin and MySQL, serves as a control center for administrators to manage job data, company information, user details, and other aspects of the platform. This page is designed to allow admins to interact with the database easily and in an organized manner, enabling them to perform CRUD (Create, Read, Update, Delete) operations on the data.

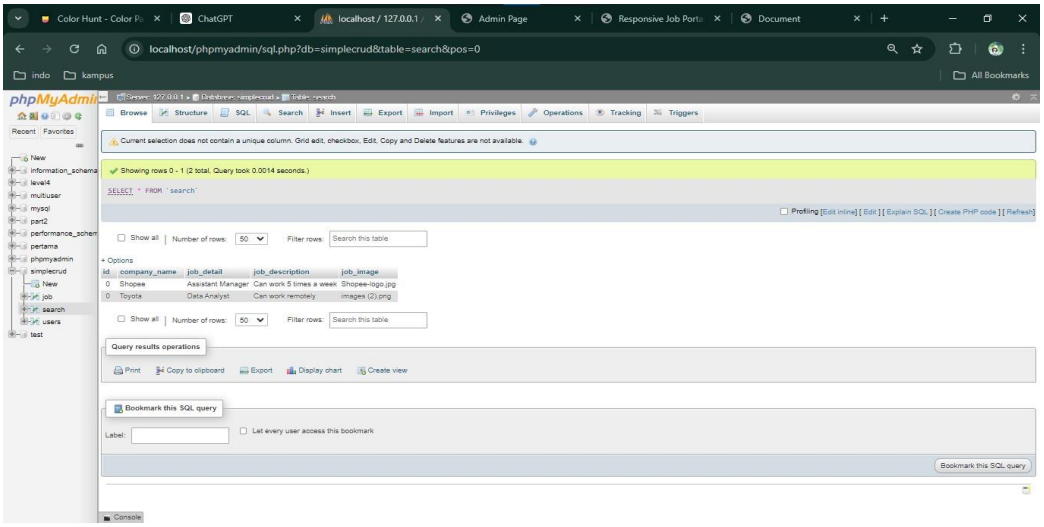

Fig. 8. Admin Database Page

10) System Testing

The method used for system testing in this study is black box testing. This method is employed to evaluate the functionality of the system based on its external behavior. Below are the tests conducted for each part of the system using black box testing:

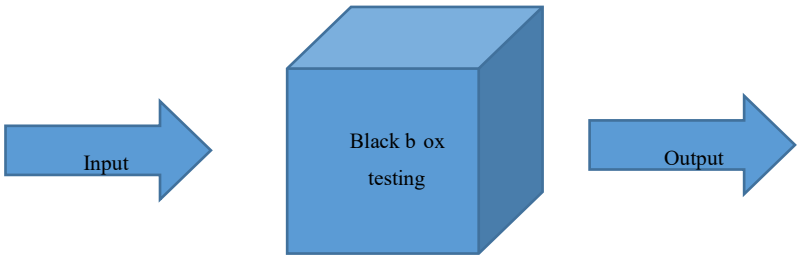

Fig. 9. Diagram of the Black Box Testing Method

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11) Testing the Login Button for Users and Admins

Here is the table for testing the login page for users and admins using the black box testing method [1].

Table 1. Login Button Testing for User and Admin

NO	*TESTING ACTIVITIES*	*EXPECTED RESULTS*	*TEST RESULTS*	*PASS/ FAIL*
1	Enter a valid username and password for the user.	Navigate to the user's main page after login	Navigate to the user's main page after logging in	PASS
2	Enter a valid username and password for the user.	Navigate to admin page after login	Navigate to admin page after login	PASS
3	Leave the username or password field blank.	The message "Field cannot be empty" appears.	The message "Field cannot be empty" appears.	PASS

12) CRUD (Create, Read, Update, Delete for job vacancies) testing for Admin

The following is a table for testing the CRUD job vacancy page for admins using the black box testing method [1].

Table 2. Testing the Create, Read, Update, Delete Pages

NO	*TESTING ACTIVITIES*	*EXPECTED RESULTS*	*TEST RESULTS*	*PASS/ FAIL*
1	Login as Admin, click the add button, fill in the form with complete information	Job successfully added and appears	Added jobs appear	PASS
2	Try adding a job with one of the columns empty (eg. no description)	The error message "Field cannot be empty" appears.	Field cannot be empty	PASS
3	Login as admin, click on the job listing page	Job list displayed correctly	Job list displayed correctly	PASS
4	Make sure that all job data that appears matches what has been added.	All added job information appears correctly.	The information displayed is correct	PASS
5	Login as admin, click edit on a particular job, make changes and save.	Changes saved successfully, job information updated.	Changes saved successfully, job information updated.	PASS
6	Change the job by leaving one of the columns blank.	The error message "Field cannot be empty" appears	Jobs that are updated and leave one of the columns blank can still be saved.	FAIL
7	Login as admin, click delete on a particular job, confirm deletion.	Job successfully removed from job list	Job successfully deleted	PASS
8	When you click the delete button, a confirmation appears “Are you sure you want to delete this job?	If confirmed, the job is deleted; otherwise, the job is not deleted.	There is no pop up for confirmation if you want to delete, and the work is immediately deleted when you click delete.	FAIL
9	Try accessing the CRUD (Add, Edit, Delete) page without logging in.	Redirect to login page with message “please login as admin”	Go to the login page to login as admin.	PASS

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10	Click the Logout button after logging in	User is redirected back to the login page	Users are redirected to the home page	FAIL

4.2 Discussion

In general, the research carried out has a good impact on partners, so it needs to be improved in terms of cooperation and good synergy to produce good research in the future.

4. Conclusion

From this study, it can be concluded that the Employment Road platform is an effective tool for developing job vacancy information websites. However, improvements in technical and security aspects need to be made to improve system reliability. Further research can be focused on developing additional features that can enrich the user experience and improve the effectiveness of the platform in disseminating job vacancy information.

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