BCS3143

SOFTWARE PROJECT MANAGEMENT

PROJECT TASK #5

SECTION: 01B

GROUP NAME: 1B4

MEMBERS:

NO	ID	NAME
1.	CB21065	SHO MING KANG
2.	CB21070	MUHAMMAD AIDIL AIMAN BIN AHMAD HAZIZI
3.	CB21072	NAZRIN NAIM BIN AHMAD MAHARI
4.	CB21102	ANI ZAHIRAH BINTI MOHD RADUAN

Youtube link Discussion	**No Need**

INSTRUCTION:

Read, analyze and synthesize your project case study below. All following tasks are based on your project case study. WHAT YOU NEED TO DO:

1. **DISCUSS IN GROUP, WRITE THE ANSWER IN THE BOX THEN SAVE TO .pdf FORMAT**
2. **RECORD YOUR 10 MINUTES DISCUSSION VIDEO, UPLOAD IT TO YOUTUBE**
3. **SEND THE .pdf DOCUMENT (No 2) AND THE YOUTUBE LINK (No 3) TO THE KALAM**

PROJECT TITLE:

Internship Application System (Internseek)

Internships play a vital role in preparing university students for real-world challenges by providing them with opportunities to apply their theoretical knowledge to practical situations. Despite their importance, the process of securing internships can be fraught with challenges for students, particularly those in computer science programs. To address these challenges, this case study examines the development and implementation of the Internship Application System (Internseek), a centralized web-based platform aimed at streamlining the internship application process for students, employers, and administrators. This system was designed to address inefficiencies in the current application process, enhance user experience, and simplify internship management.

Introduction

Industrial training, commonly referred to as internships, is an integral part of many university curricula, particularly in Malaysia, where it is mandated for certain programs by the Ministry of Higher Education. This training is a bridge between academic learning and professional experience, enabling students to refine their technical and soft skills in a real-world working environment. However, the existing processes for securing internships are often inefficient and fragmented. Students typically rely on disparate methods such as email, company websites, and job application portals to find opportunities. This decentralized approach not only consumes time but also complicates the management of multiple applications. Internseek was conceptualized as a solution to these challenges, offering a unified platform to streamline the internship application process.

Problem Statement

The current internship application process in Malaysia poses several challenges. First, the lack of a centralized system forces students to navigate multiple platforms, making it difficult to manage and track applications. This fragmented approach often results in missed opportunities and delays in communication with potential employers. Second, students frequently receive multiple internship offers, necessitating a cumbersome process of individually rejecting unwanted offers via email. This manual approach increases the risk of errors and inconsistencies, leading to potential miscommunication with employers. Lastly, employers and administrators also face challenges in verifying student credentials and managing internship postings due to the absence of a standardized platform.

Recognizing these issues, Internseek was developed to address the inefficiencies in the internship application process. The system aims to centralize internship listings, enable efficient management of applications, and facilitate seamless communication between students, employers, and administrators. By automating repetitive tasks and providing real-time updates, Internseek seeks to enhance the overall experience for all stakeholders.

Objectives

The development of Internseek is guided by three primary objectives. Firstly, the project aims to study the existing internship application process to identify challenges faced by students and employers. Secon, it seeks to develop a web-based platform that allows computer science students to find and apply for internships efficiently. Finally, the project includes testing and evaluating the system's functionality using methods such as functionality testing and User Acceptance Testing (UAT) to ensure a robust and user-friendly experience.

System Overview

Internseek is a web-based application developed using modern technologies to meet the needs of its users. The system is built on Laravel for backend development, with React handling the frontend, and MySQL serving as the database. Inertia.js acts as the link between Laravel and React, enabling the creation of a single-page application (SPA) that delivers seamless transitions and responsive UI updates. The platform supports essential functionalities such as internship search, application management, and employer verification.

The primary users of Internseek are categorized into three groups: students, employers, and administrators. Students can search for internships, submit applications, and track their application status through a centralized dashboard. Employers can post internship opportunities, review applications, and communicate with potential candidates. Administrators are responsible for verifying employer accounts and ensuring the quality of internship listings.

Features and Functionality

Internseek offers several features designed to streamline the internship application process. For students, the platform provides a searchable database of verified internship opportunities, categorized by industry and location. Students can create profiles, upload resumes, and submit applications directly through the platform. The system also allows students to reject multiple internship offers simultaneously, saving time and reducing the risk of errors.

Employers benefit from tools to manage internship postings, review applications, and communicate with candidates. The platform includes a verification process to ensure the legitimacy of employers, enhancing trust among users. Administrators have access to an intuitive interface for monitoring system activity, managing user accounts, and resolving issues.

To ensure a seamless user experience, Internseek incorporates automated notifications and real-time updates. Students receive alerts about the status of their applications, while employers are notified of new submissions. The platform also includes analytics tools to help administrators track system performance and user engagement.

Development Process

The development of Internseek followed a structured approach, beginning with an in-depth analysis of the existing internship application process. Interviews and surveys were conducted with students, employers, and university administrators to identify pain points and gather requirements. Based on this research, a detailed system design was created, outlining the platform's architecture and functionalities.

The development phase involved the use of modern tools and technologies. The backend was implemented using Laravel, a PHP framework known for its scalability and robustness. The frontend was developed with

React, ensuring a responsive and user-friendly interface. Inertia.js was utilized to create an SPA environment, facilitating smooth navigation and data sharing between the backend and front-end. Testing was conducted iteratively, with functionality testing and UAT ensuring that the system met user expectations.

Challenges and Solutions

Several challenges arose during the development of Internseek. One major challenge was ensuring data security and privacy, particularly given the sensitive nature of student information. This was addressed through the implementation of robust authentication and encryption protocols. Another challenge was optimizing the system for scalability to accommodate a growing user base. This was achieved by employing efficient database management techniques and scalable cloud infrastructure.

The integration of multiple user roles—students, employers, and administrators—required careful consideration to ensure a seamless experience for all users. Role-based access controls were implemented to restrict access to sensitive functionalities and data, enhancing security and usability.

Evaluation and Impact

The effectiveness of Internseek was evaluated through comprehensive testing and feedback from users. Functionality testing ensured that all features performed as intended, while UAT provided insights into the user experience. Feedback from students and employers highlighted the platform's ease of use and efficiency in managing internship applications. Internseek has the potential to transform the internship application process by addressing the inefficiencies of the current system. By centralizing internship listings and automating repetitive tasks, the platform saves time for students and employers while reducing the risk of errors. The system also promotes transparency and trust by verifying employer accounts and providing real-time updates on application status.

Future Enhancements

While Internseek addresses many of the challenges associated with internship applications, there is room for improvement. Future enhancements could include the integration of AI-powered recommendation systems to suggest internships based on student profiles and preferences. The platform could also be expanded to include internship opportunities from international employers, providing students with a wider range of options.

Additionally, features such as video interview scheduling and portfolio sharing could further enhance the user experience.

Conclusion

Internseek represents a significant step forward in streamlining the internship application process for university students. By centralizing internship listings, automating repetitive tasks, and facilitating seamless communication, the platform addresses the inefficiencies of the current system. The successful development and implementation of Internseek demonstrate the potential of technology to enhance the educational experience and prepare students for their future careers. As the platform continues to evolve, it has the potential to become an indispensable tool for students, employers, and administrators alike.

INFORMATION ABOUT YOUR COMPANY

Name: Techvision B4 Sdn Bhd

Background: Techvision B4 Sdn Bhd is a dynamic software development and consulting company specializing in innovative technology solutions across web, mobile, desktop, and embedded platforms. Since its establishment in 2000, Techvision B4 has empowered businesses by delivering tailored digital transformation strategies to clients in industries such as Education, Healthcare, Retail, Manufacturing, and Logistics. The company's expertise spans enterprise resource planning (ERP) software, custom ecommerce solutions, cloud-based applications, AI-powered analytics, and IoT systems, ensuring comprehensive solutions to meet modern business challenges.

Region: Malaysia

Industry: Software Development

Type: Sdn Bhd

Engagement model: Fixed cost contracts, Time and material agreements

Staff: 100 persons

Platforms: Android, iOS, and web-based applications

The total cost allocation for the project is RM1 million. The project must be completed within 12 months.

BCS3143 PROGRESS REPORT

Project Name:	Internship Application System (Internseek)	Reporting Period:	15 November 2024 to 5 November 2025
Stakeholder:	• Project Manager • Software Engineer • Developer • Software Tester	Owner:	Mr. Sho Ming Kang
Project Manager:	Sho Ming Kang	Project Due Date:	5 November 2025
Compiled By:	• Sho Ming Kang • Muhammad Aidil Aiman Bin Ahmad Hazizi • Nazrin Naim Bin Ahmad Mahari • Ani Zahirah Binti Mohd Raduan	Date Submitted:	9 January 2025

1. Summary

Item	Current Status	Prior Status	Summary
Project Status	5.3.1 Compile project documentation	5.2.2 Verify deployment setup and accessibility	Documentation compilation involves gathering and organizing all project-related materials, including user manuals, technical documents (e.g.Requirement Document, System Design Document, Testing Document, Code Documentation), and deployment instructions, to ensure comprehensive coverage for future reference. Deployment setup verification has been successfully completed, ensuring that the system is fully operational, accessible, and meets all specified requirements for both functionality and user access.
Scope	Gather and organize all project-related documentation to ensure a smooth transition to the stakeholders or support team.	Ensure that the deployed system is fully operational and meets all specified requirements.	The project involves two key activities. First, ensuring that the deployed system is fully operational, accessible, and meets all specified functional requirements. Second, gathering and organizing all project-related documentation, including user manuals, technical documents, and deployment instructions, to facilitate a smooth transition to stakeholders or the support team.

Schedule	In 2 days	In 3 days	The project includes two tasks with well-defined timelines. The system deployment verification is scheduled to be completed within 3 days, ensuring the system is fully operational. Meanwhile, the compilation of project documentation is planned to be completed within 2 days, allowing sufficient time to gather and organize all necessary materials for future reference.
Cost	Within Budget	Within Budget	Both tasks are being carried out within the allocated budget. The system deployment verification has a budget of 10,000 MYR, while the compilation of project documentation is budgeted at 10,000 MYR. Both tasks are proceeding as planned, ensuring efficient use of resources without exceeding the budget.
Risk	Low	Low	Both tasks carry a low risk of failure or complications, indicating smooth execution and completion.

2. Tasks

Task	Status	Objective	Planned	Actual	Progress Complete	Deliverable
Initiation	Completed	Establish a clear foundation for the project by defining the main goals, objectives, scope, deliverables, and conducting feasibility studies.	11/15/2024	12/18/2024	100%	Project Charter Document
Planning	Completed	To create a detailed project schedule, allocate resources, assess potential risks, and outline key features and requirements. This phase also involves planning for the development tools and frameworks to be used.	12/19/24	02/26/2025	100%	Project Implementation Plan
Execution	Completed	Implement the project, set up development environments, install dependencies, design and create the database, and develop frontend and backend features.	02/27/2025	07/15/2025	100%	Project Management Execution Checklist

Monitoring & Controlling	Completed	Monitor progress through unit and integration testing, user acceptance testing, and load/performance tests to ensure the system is functioning as intended.	07/16/2025	09/25/2025	100%	Change Control, Progress Report
Closing	In Progress	Formal project completion, including usability testing, final deployment, handover documentation, and post-implementation feedback collection.	09/26/2025	11/05/2025	20%	In Progress

3. Issues

Issue	When Identified	Action or Ignore	Owner	Resolved
Issues with LinkedIn OAuth or email API causing login or notification failures.	3/15/2025	Monitoring detects OAuth or email service disruption.	Software Engineer, Programmer	Resolved
System unable to handle increased traffic or data load during peak periods	5/01/2025	Traffic or resource usage exceeds 80% of system capacity.	Software Engineer, Application Developer	Resolved
Outdated or incompatible third-party libraries, frameworks, or APIs	6/10/2025	Vulnerabilities detected or security audit flags a risk.	Software Tester, Application Developer	Resolved
Search functionality or other features failing to meet acceptable response times.	8/01/2025	Search response times exceed 2 seconds in performance tests.	Application Developer, Project Manager	Resolved
Breaches exposing sensitive user data (resumes, company info, personal info).	9/10/2025	Test results identify incompatibility or breaking changes in dependencies.	Software Engineer, Project Manager	Resolved

4. Budget

Item	Allocation	Spent	Spent to Date
Salary for Project Manager	RM 800	RM 750	RM 651,750
Salary for UI/UX Designer	RM 400	RM 400	RM 652,150
Salary for Application Developer	RM 600	RM 400	RM 652,550
Salary for Programmer	RM 600	RM 600	RM 653,150
Salary for Software Engineer	RM 800	RM 800	RM 653,950
Salary for Quality Assurance	RM 600	RM 600	RM 654,550
Salary for Software Tester	RM 600	RM 600	RM 655,150
Jira (Software Project Management Tools)	RM 150	RM 150	RM 655,300
Google Workspace Subscription (Google Document, Google Sheet, Google Drive and more)	RM 100	RM 100	RM 655,400
Printing Fee	RM 150	RM 125	RM 655,525

5. Accomplishments

- Completed the initial gathering and organization of all project-related materials, including user manuals, technical documents, and deployment instructions.
- Compiled the **Requirement Document** that outlines the system's functional and non-functional requirements for the internship application process, user roles, and system integration.
- Developed the **System Design Document**, detailing the architecture, database schema, models, routes, controllers, and UI design for the employer, admin, and student portals.
- Completed the **Code Documentation**, providing detailed comments and explanations for all major components, classes, and methods within the system to facilitate future maintenance.
- Drafted comprehensive **Deployment Instructions**, covering the deployment environment setup, server configuration, database migration, and system testing procedures.
- Reviewed and validated existing project documentation to ensure it is up-to-date and aligned with the final implementation.

6. Expected Accomplishments

- Finalize the **Testing Documentation**, detailing all test cases, user acceptance testing (UAT), and automated tests for the internship posting and application workflows.
- Complete the **User Manual**, providing clear instructions for employers and students on how to use the system, including registration, internship posting, and application procedures.
- Finalize the **Administrator Manual**, outlining the system’s management features, such as user management, internship approval, and dashboard reporting.
- Incorporate feedback from stakeholders (such as developers and project managers) to refine and ensure all documentation is comprehensive and user-friendly.

- Ensure that the **Deployment Guide** includes a detailed step-by-step procedure for deploying the Internship Application System (Internseek) to production environments, including any post-deployment testing required.
- Ensure all documents are aligned with the project's scope, functionality, and deployment requirements, making them ready for use by future developers and system administrators.