

UNIVERSITI TEKNOLOGI MALAYSIA
FACULTY OF COMPUTING

INDUSTRIAL TRAINING REPORT
iFAST CAPITAL SYSTEM

By

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TRAINING PERIOD : 25TH SEPT 2023 – 9TH FEB 2024

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ABSTRACT

The primary goal of industrial training is to enhance students' knowledge and skills within their respective fields, fostering the development of graduates who are competent, innovative, and skilled. The key objectives include helping students adapt to dynamic work environments, applying academic knowledge to address real-world challenges, gaining practical work experience, and fostering intellectual growth. This report provides a comprehensive record of the trainee's internship at iFAST Capital Sdn. Bhd. in Kuala Lumpur, specially within the IT Application department. The faculty supervisor is Dr Noor Hidayah binti Zakaria while the industrial supervisors are Ms. Vivianxe Leong Wai Yui for functional reporting line and Mr See Ke Han for business reporting line. The primary focus of the internship involved the iFAST Capital business B2B system project, encompassing tasks such as front-end development, form type issue resolution and project testing. The technologies utilized for the project include Angular, Java, and Oracle Database.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

iFAST Capital Sdn. Bhd. ("iFAST Capital"), located in Wilayah Kuala Lumpur, Malaysia possesses a Capital Markets Services License (CMSL) and has received authorization from the Securities Commission under the umbrella of iFAST Corporation Ltd ("iFAST Corp"), whose headquarters is situated in Singapore. In addition to Malaysia, iFAST Corp has established its presence in various countries, including Hong Kong, China, and the United Kingdom. Mr. Lim Chung Chun, the founder of iFAST Corp, initiated its establishment in 2000 and currently serves as the Chief Executive Officer (CEO). iFAST Corp specializes in the realm of wealth management fintech as well as offers investment solutions and services to a wide range of financial sectors, including financial institutions, financial advisory firms, multinational companies, banks, and high net worth investors throughout Asia. All these services are underpinned by their proprietary IT systems. Meanwhile, iFAST Capital offers services including support in trading, investment management, research assistance, IT services and backend operations for financial planners, wealth managers, and institutional clients. The primary objective of iFAST Capital is to elevate the quality of wealth management services for the future. This goal entails enhancing transparency and collaboration within the platform to provide a tailored customer experience. iFAST Capital is also registered with Federation of Investment Managers Malaysia (FiMM) as both an Institutional Unit Trust Adviser (IUTA) and Institutional Private Retirement Scheme Adviser (IPRA). Additionally, it holds approval as Financial Adviser granted by Central Bank of Malaysia and recognized as Participating Organization of Bursa Malaysia Securities Berhad.

1.1.1 iFAST's Core Business

iFAST Capital operates through three distinct business models: the Business-to-Business (B2B) model, Business-to-Customer (B2C) model, and Business-to-Business-to-Customer (B2B2C) model. The B2B model caters to banks, financial institutions, internet companies, and financial advisory firms, while the B2C model serves individual customers and investors directly.

Within the iFAST B2B model, a distribution platform is provided, facilitating access to various investment products, including funds, bonds, stocks, administrative services, transactional capabilities, and more, for the benefit of banks and financial advisory companies. This foundational business model allows financial institutions to concentrate on their primary operations, entrusting iFAST Capital with the backend functions. The B2B model also encompasses the Pensions business, which extends investment administration services to multinational companies on behalf of their employees. iFAST platform serves over 12,500 wealth advisers from over 640 FA businesses, financial institutions, banks, and online enterprises.

The iFAST B2C model offers distribution and transaction platforms to Do-It-Yourself (DIY) investors through the Fundsupermarket (FSM) website. FSM is renowned for its comprehensive selection of investment products, insurance products and user-friendly tools for investment comparisons, robust customer support, and research guidance to assist customers on both website and mobile application.

Regarding the B2B2C model within iFAST Capital, the management team places a significant emphasis on developing the company's proprietary IT solutions to advance business objectives. This focus on bolstering financial technology expertise remains fundamental to our capacity to deliver innovative solutions to our clients. Given the evolving landscape of financial regulations and IT advancements, businesses must remain agile to meet the ever-changing expectations of their clients. Clients increasingly demand secure, seamless, and efficient means of staying connected with global markets, and companies actively seek fintech solutions that can enhance the overall client and business experience.

1.1.2 Products in iFAST

iFAST Capital offers a diverse spectrum of financial products and services, catering to the needs of its clientele. These offerings include unit trusts, exchange-traded funds (ETFs), pension accounts, investment parking facilities, and the exclusive iFAST Global Prestige platform tailored for high net worth (HNW) clients.

(a) Unit Trusts

Within the realm of unit trusts, a distinctive form of unincorporated mutual funds, iFAST Capital provides a conduit for the management and distribution of assets, ensuring that profits flow directly to individual unit owners rather than being reinvested within the fund. The company's comprehensive selection encompasses more than 844 unit trusts sourced from thirty esteemed fund houses, all competitively priced to align with the dynamics of the global investment market.

(b) Stocks

Stocks, symbolizing ownership in various companies, find a dynamic platform at iFAST Capital, which stands out as one of the most agile brokerage firms. Here, traders gain immediate and direct access to the global market through user-friendly desktop and mobile trading applications.

(c) Managed Portfolios

Managed portfolios, often referred to as managed accounts, are individual investor-owned portfolios under the supervision of a licenced money manager that the investor has engaged. With the ability to be adjusted to each investor's desired level of risk, iFAST Capital provides tailored portfolios that are managed by our staff of portfolio managers and span from traditional to shariah-compliant.

(d) Bonds

Bonds are contracts wherein investors lend money to governments or companies for a predetermined period in exchange for recurring interest payments. iFAST's bond expertise can provide dependable returns for bond investors, whether they are wholesale or retail, with a diverse variety of over 300 bonds.

1.1.3 Total Number of Staffs and Departments in iFAST

As of 2023, iFAST Corp employed over 1199 people in five different markets: Malaysia, Singapore, Hong Kong, China, and India. Table 1.1 displays the total number of personnel and departments spread across five nations.

Table 1.1 Total number of staff and departments in iFAST Corp

Regional Office	Number of Staff	Number of Department
Malaysia	488	22
Singapore	291	32
China	180	25
Hong Kong	139	14
India	30	14

1.2 Organization Structure of iFAST

Figure 1.1 demonstrates the organizational structure of iFAST IT Application department in Malaysia. Chief Executive Officer (CEO) is located at the top of the chart followed by Managing Director who is responsible to preside over 2 teams which are leaded by a senior technical lead and manager separately. The manager mainly

leads product development executives whereas the technical lead will superintend IT specialists.

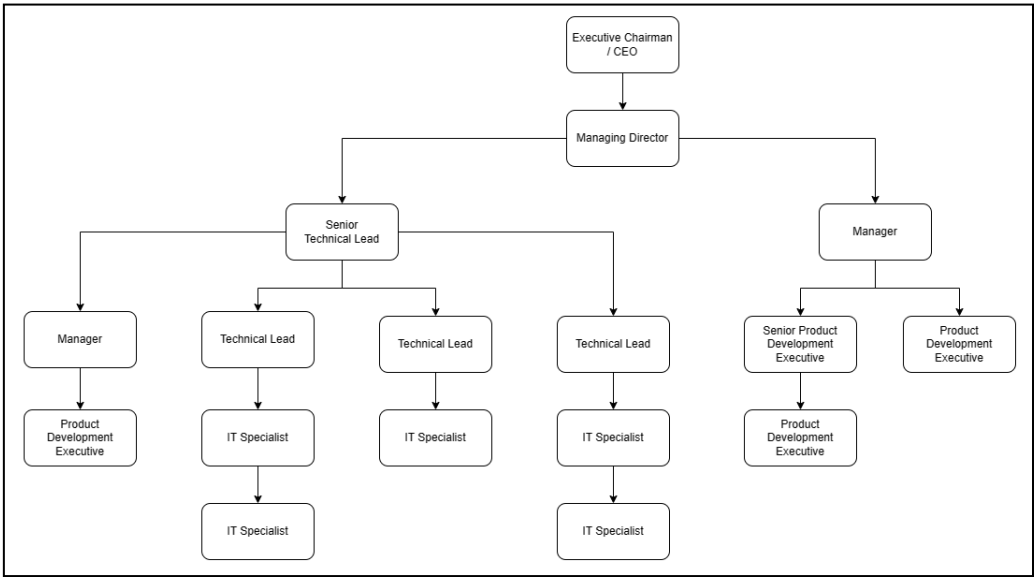


Figure 1.1 Organization structure of iFAST IT Application department

1.3 IT Application

Within iFAST Capital, IT application is a department which offers the opportunity of industrial training to Informative Technology (IT) students. This department commonly prioritize on developing and maintaining the company system and application for internal usage and meanwhile, there is a team which specializes in building an application as the solution required by the clients to assist their core business in financial sector. Apart from that, IT interns have benefited from incentives, expertise, and a fantastic work environment given by this department. Senior IT specialists were also able to mentor and oversee the internship students, which made it easier for us to grasp new abilities swiftly and distinctly.

1.4 Gantt Chart

The internship training program lasts for 20 weeks. The training for the internship will begin on September 25, 2023 and go through February 9, 2024. Ms. Vivianxe Leong Wai Yui is my organization supervisor for functional reporting line and Mr See Ke Han is for business reporting line during industrial training. The internship training schedule is organized on this Gantt chart, which I require to do tasks on my own. I will be working on Angular-related front-end development over the next few months. The Gantt chart is displayed in Figure 1.2.

Task Name/ Week	SEPT - FEB 2023																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Report Duty																				
Setup Working Environment and Software Installation																				
Study on Angular																				
Work on Assignment																				
Provide Technical Solutions for Project																				
Development on Project Frontend																				

Figure 1.2 Gantt Chart

CHAPTER 2

SPECIFIC DETAILS ON PROJECT / TRAINING

2.1 Introduction

The specifics of this 20-week internship programme will be covered in this chapter. iFAST has assigned particular duties and provided instruction over these 20 weeks of industrial training sessions. Front-end development and enhancement are the primary focus in most of the tasks allocated. The goal of training is to optimise trainees' working capability and acquaint them with the working environment and procedures. Furthermore, this chapter will provide a brief overview of system and project that intern involved with, hardware and software utilised, theoretical and practical knowledge gained as well as problem encountered during the internship programme.

2.2 Objectives of Projects / Training

The following are the projects' principal goals:

- (a) To understand the basic concepts of Angular framework.
- (b) To improve the web application's user experience.
- (c) To guarantee the correct operation of features.
- (d) To fix the reported issues.

2.3 iFAST Capital System

iFAST Capital system is also known as iFAST Central which is a wealth management platform utilized by financial advisory (FA) firms, financial institutions, and banks as iFAST business partners. Its aim is to enable all the financial advisers to serve their customers in a more convenient and user-friendly method without worrying about the back-end operations. iFAST Capital platform provides a comprehensive service such as investment administration, online transactions services, research supports, tools and features, IT and middle-room support, multi-asset financial planning, cash management and so on. For example, the financial advisers can use the platform to assist their clients to do any investment based on clients' requirements and agreement. To ensure the clients acknowledged the investment initiated by their personal financial advisers, some investment operation required the approval from clients and thus, the clients also need to login into the platform to perform their authority to proceed the pending investment. Therefore, iFAST Capital system can handle all the financial processes smoothly and safely through a transparent channel as well as implicitly enhance the trust building between the financial advisers and clients.

The iFAST Capital system incorporates Angular for its front-end development, Java for back-end development and Oracle Database for managing the database. Trainees are expected to acquaint themselves with and actively contribute to the front-end aspects of the projects. Consequently, it is essential for trainees to grasp and apply Angular concepts while participating in project activities.

2.3.1 Project Execution

During the initial weeks of industrial training, trainees undergo Angular learning sessions facilitated by Udemy resources provided by iFAST Capital. Once the trainees have grasped the foundational knowledge of Angular, they are tasked with an assignment to apply the acquired skills. The assignment involves creating an account opening form page and a pre-register verification page to display account summary

information filled for checking purpose before submitting to the system. The supervisor mandates the incorporation of specific Angular concepts, including component, data binding, form handling, directives, service, routing, pipe, validators, and error handling for backend server response.

2.3.2 Project Frontend Form Type Issue Fixing

Following the completion of the assignment, the trainee actively participated in the actual project environment, iFAST Capital B2B project. The assigned tasks included engaging front-end and UI development, addressing inappropriate front-end form type issues, and executing testing procedures. Prior to involving in real projects, the trainee was required to clone the project repository from GitLab to the local repository through IntelliJ Idea built-in software. After the cloning process, the trainee initiated the project and rectified problems or errors within the local repository before committing and pushing the changes to GitLab. This sequential approach is prominent to ensure the synchronization of projects across teams and facilitate access to the latest project update and modification.

The front-end tasks separated into two kinds which were form type issue fixing and developments. For the form type fixing, it is due to the upgraded angular version auto transformed all the used form type to untyped form which was unable to check the data type of form input. This conversion was unable to achieve one of the project purposes to ensure obtained data in required data type format and meanwhile ease the error tracing purpose when data errors happen. Therefore, trainee was assigned to search all the untyped forms such as `untypedFormBuilder`, `untypedFormGroup`, `untypedFormControl` and `untypedFormArray` in the whole project which covered only the new version using global searching technique.

After that, the trainee was required to create the form model interface and import it as the form datatype to secure the default datatype checking function by typescript. Lastly, remove all the unwanted built-in untyped Form features and replace them with `FormBuilder`, `FormGroup`, `FormArray` and `FormControl`. It seemed like a

simple task but also quite challenging as it urged the trainee to have a good understanding of the form usage and all the field type in form before making changes. After fixing the form type problem, trainee would commit the changes to the GitLab branch and wait for supervisors' checking.

2.3.3 Project Frontend Development

In the context of front-end development, the trainee is tasked with generating new components of features in accordance with project specifications and mock-ups. The UI team is responsible for crafting the mock-up that outlines the project's user interface. Prior to initiating the development process, it is imperative for the trainee to gain a comprehensive understanding of the requirements for new functionalities. Additionally, the trainee must ensure clarity by confirming the function with supervisors before commencing work. For instance, the trainee was assigned to create a daily balance transaction page inside client cash account in iFAST Capital B2B website. In this page, the daily balance transaction record was demonstrated in table form with sort and filter function based on timeframe. It also included a view button to view the details of balance transaction from the selected record via ng-zorro component, modal. Another task example was to create a new module for bond-ipos in the same website. This module displayed the bond-ipos information in table and important notes in ng-zorro collapse form. Not only have sorting function, the filter and search functions also have encompassed to retrieve data using backend database. Apart from that, the filter function and interface also be requested to suite the device responsiveness. Development tasks typically have a one-week timeframe for completion, with an additional week allocated for any enhancements, ensuring a smooth execution flow for all tasks.

2.4 Hardware and Software Used

The hardware and software that be applied during the project execution as summarized in Table 2.1 and Table 2.2

Table 2.1 Details of hardware used

Hardware	Specification
Processor	Intel Core I i7-8700 CPU @ 3.20GHz
RAM	32GB
Input Medium	Mouse, keyboard
Output Medium	Monitor Screen, headset

Table 2.2 Details of software used

Software	Specification
Operating System	Window 10 Pro
Markup Language	HTML, CSS
Programming Language	Typescript, Java
Development Tools	IntelliJ IDEA 2022.2.4x64

2.5 Time Period to Complete All Tasks

The Gantt chart displayed below indicates the time allocated to complete the project and tasks given.

Task Name/ Week	SEPT - FEB 2023																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Report Duty																				
Setup Working Environment and Software Installation																				
Study on Angular																				
Work on Assignment																				
Provide Technical Solutions for Project																				
Development on Project Frontend																				

Figure 2.1 Gantt Chart

2.6 Theoretical and Practical Knowledge

To fulfill the project requirements, proficiency in HTML, CSS, TypeScript, and Angular is essential. The Angular framework relies on lifecycle hooks like `ngOnInit`, `ngOnChanges`, and `ngOnDestroy` playing a crucial role in managing change

detection, data-bound properties, and displaying the component view, including its child views. Lifecycle begins with the `ngOnChanges` which responds when Angular set or reset data-bound input properties while `ngOnInit` initiates the directive or component after Angular display data-bound properties or sets input properties. Afterward, `ngDoCheck` performs its function to detect and act upon changes that Angular hasn't identified on its own. Subsequently, `ngAfterContentInit` and `ngAfterContentChecked` respond after angular project and checks external content into component's view respectively. This is followed by `ngAfterViewInit` and `ngAfterViewChecked` which function similarly to `AfterContentInit` and `AfterContentChecked` but they prioritize the component and child views rather than content. Finally, the Angular lifecycle concludes with `ngOnDestroy`, responsible for cleanup, unsubscribing observable and detaching event handlers before Angular destroys the components. Figure 2.2 visually represents the lifecycle hooks within the Angular framework.

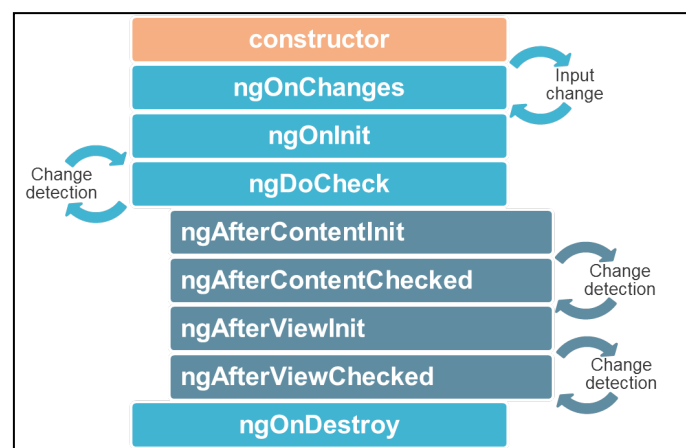


Figure 2.2 Angular lifecycle hooks

Additionally, addressing UI issues has contributed to the improvement of skills and practical application in HTML, CSS and Typescript. Ng-zorro is a significant UI language learned which stands out as an enterprise-class Angular UI component library rooted in Ant Design, featuring open-source components available for free use under the MIT license. Ng-zorro encompasses a wide array of Angular UI components designed to streamline and enhance web development. Some notable components include data display, buttons and icons, navigation, form, feedback and notification, layout, chart, and accessibility. These components collectively offer a versatile toolkit

for Angular developers enabling the creation of robust and aesthetic user interface. Hence, leveraging ng-zorro allows for the integration of higher-quality Angular components, leading to enhancements in both HTML and CSS.

2.7 Problem Faced During Practical

Initially, a significant problem for the trainees was the need to familiarize themselves with Angular concepts. In the opening account assignment involving the creation of multiple input fields with varied validation conditions, the trainee initially employed an inappropriate approach to fulfil the assignment's requirements as they haven't mastered the basic concept of Angular. Fortunately, guidance from supervisors prompted the trainee to keep studying, implementing, and correcting the mistakes from the improper concept such as error-handling response, folder managing, error analysis and so on.

Moreover, the trainee recognized the necessity to enhance their knowledge of HTML and CSS prior to commencing industrial training. Consequently, a substantial amount of time was dedicated to addressing UI issues for web applications and concurrently ensuring the responsiveness for different devices. To acquire the required expertise, the trainee extensively researched online resources to identify optimal solutions for encountered issues. Additionally, guidance from colleagues and supervisors plays a crucial role in advising on UI design improvements to enhance the front-end appearance.

The following problem faced by the trainee was mastering a new UI design concept which is ng-zorro library. Since all the current projects apply ng-zorro as prominent UI design, trainees were urged to learn and master it in a limited time. This challenge stimulates trainees' growth swiftly as they utilize the new knowledge instantly after learning through online resources.

Furthermore, it is undeniable that project dependency problems were the prominent issues often require trainees to tackle. Project dependency complications

frequently occur when trainees start a new task in different projects and try to run a project after finishing project clone. It commonly takes nearly a day or even more for trainees to look for the solution such as software version incompatibility issue, pre-installed modules have incomplete and dependency problems and so on. Through online research and supervisors' guidance, these obstacles are eventually able to be resolved.

While various problems arose, solutions were attainable through exploration and research. The trainee proactively sought advice and guidance from supervisors, systematically addressing difficulties and thus, successfully completing the tasks within the allocated time frame.

2.8 Conclusion

This chapter delves into the specifics of iFAST B2B system project, embracing its objectives, execution, and the tools employed to achieve the project success. Moreover, time period dedicated to the tasks' completion, theoretical and practical knowledge as well as the faced project problem also be discussed.

CHAPTER 3

OVERALL INFORMATION ON INDUSTRIAL TRAINING

3.1 Introduction

This chapter will describe the skills and techniques that learned by the trainee in iFAST Capital Sdn. Bhd. during industrial training. Other than elaborating the hard skill and soft skill, the constructive comments will also be justified in this chapter.

3.2 Skill Improvement

The opportunity to acquire both hard and soft skills that will assist the intern in their future profession makes this industrial training programme outstanding. The trainee has enhanced the hard skills such as technical, programming, problem-solving and so on while in terms of soft skills, communication, critical and logic thinking are the skills that be strengthened by trainee in 20 weeks.

3.2.1 Technical Skill

During the initial week of the industrial training, the trainee was tasked with installing various software applications on the desktop, which included IntelliJ IDEA, Postman, Git, JDK 8, Gradle 6.8, Node.js and so on. Among these, IntelliJ IDEA Ultimate is the most frequently used software applications while GitLab is the primary code repository used in iFAST Capital. Consequently, this chapter will focus on providing an overview of these two applications.

IntelliJ IDEA functions as an integrated development environment(IDE) employed by the trainee for coding purposes. This robust tool is developed by JetBrains supported languages such as Java, Kotlin, Typescript, HTML, and CSS. The trainee has found IntelliJ IDEA to be instrumental in code writing, utilizing its features such as keyboard shortcuts for code and folder searches within or outside projects, particularly they able to coordinate with the filter function for file types to magnify the effectiveness of the search function. Additionally, the software also boosts powerful functionalities, including the ability to locate variable or symbol usage, aiding the programmer through context-based code completion, navigation to class declarations, debugging, refactoring, and more. These features collectively alleviate the programmer's workload, enhancing the convenience and efficiency of the coding process.

Following the resolution of UI issues or completion of development coding, it become essential to push the code changes to GitLab repositories to maintain the synchronization across teams. IntelliJ IDEA also comprises of the built-in git graphical user interface without installing another specific application for git fundamental functions such as pull, push, fetch, commit and so on. By using this platform, trainee learned and performed the basic concept of GitLab encompassed creating new branch, checking out the existing branches, reviewing commit version, checking the latest changes, searching as well as filtering branches, users and issueID to find required commit version swiftly. Apart from that, built-in GitLab also provided the user-friendly function which is prompted message for warning and reminding purpose before proceeding to the next step to prevent unnecessary coding merging issue.

3.2.2 Programming Skill

The trainee utilized the main programming language, Angular which is an open-source web application framework built on typescript. Angular is spearheaded by the Angular Team at Google, alongside contributions from a diverse community of individuals and corporations. In the realm of front-end development, Angular collaborates seamlessly with markup languages such as HTML and CSS. The

foundational principles of Angular encompasses the construction of web pages through multiple components. Each component consists of three key elements which are a component class managing data and functionality, a HTML template dictating the UI and the component-specific styles defining the component's appearance. Figure 3.0 provides a simplified representation of Angular concepts, containing data binding, directive, service, dependency injection, routing, observable, form handling, pipe and http request.

Data binding is one of the important Angular concepts in HTML which is derived from component. There are four distinct types of data binding: property binding, event binding, string interpolation and two-way binding. Property binding is used to links the HTML element property to a component's property that enables storing data and updating the property based on the user input changes while event binding will trigger specific actions when users perform certain actions as output, thus event binding commonly will be assigned to perform a function. Additionally, string interpolation also allows an expression to be embedded within an HTML string, requiring prior declaration of the variable in the corresponding Typescript file and its expression is denoted by `{{data string}}`. The fourth type is two-way binding which is crucial because it facilitates the changes in a component to transmit to the view, ensuring immediate responses within the respective component.

Directives in Angular allow for the manipulation of the Document Object Model (DOM) in terms of its appearance. For instance, `ngIf`, `ngFor`, `ngSwitch`, `ngStyle`, `ngClass` and so on. The directives also have two types which are attribute and structural. Attribute directives aim to modify the way a component, element or other directive looks or behaves while structural directives work for DOM layout. The significant difference that able to differentiate them is the attribute type is denoted by `[]` style while `*` prefix will exist for the structural type. Service, on the other hand, acts as the central repository to store and centralize the general codes to allow communication between the components. The core idea behind services is to empower programmers to define functionalities that are accessible and reusable across different components. Dependency injection, a key feature enables classes with Angular

decorators such as components, pipes and directives to configure the dependencies they require to enhance the code's readability, simpleness and cleanliness.

Furthermore, observable is also a prominent concept that ought to understand it in Angular. It is useful when user event, code trigger or HTTP request which are asynchronous tasks that take times to executes and meanwhile, the coding unable to wait for them, thus the observable can handle this situation to prevent the program or logic be blocked. Next, Angular form handling plays a major role to make form or JavaScript object representation to retrieve value, check form validity and state as well as conditionally change the method to display the form more simple and easier. It has offered two different approaches which are template-driven and reactive approach. Template-driven method can ease the programmers' work as Angular has automatically infers the form object from DOM whereas reactive method enables programmers to customize own form and synchronize with DOM.

3.2.3 Soft Skill

During this industrial training, the trainee honed effective communication skills with supervisors and colleagues, recognizing that clear communication accelerates work efficiency and ensures a shared understanding of tasks. An example of this is the trainee's practice of seeking and confirming the tasks' requirements of the mock-up as well as establishing clarity before initiating work. Other than that, the trainee also proactively reaches out to seniors, colleagues and supervisors when requires assistance during task completion. In this process, trainee has trained to show and explain the complicated problem they faced into simple and visualizable problem that can ease the other's understanding to obtain the constructive advice and solution for the issue promptly.

Problem solving skill was enhanced when conducting the project tasks such as migrating a module or create a new page for a new function. For example, the trainee will encounter various dependencies' issues prompted in the terminal whenever starting a new task, all of them should be handled in priority to execute the project.

Sometimes, the genuine source of the dependencies' issues shown implicitly and thus, they will cause trainee to spend few hours even days to find and review possible solutions from online resource. This skill was also strengthened particularly facing the coding errors and required trainee to debug them by using the appropriate error tracking method such as console.log, data property search in browser's inspect, code's line checking and so on.

Furthermore, the trainee has been exposed to working under pressure as all tasks come with designated timeframes for completion. In situations where the tasks are unfamiliar, the trainee may require additional time to review and comprehend the existing coding logic and then, proceed to address issues. Consequently, the trainee has developed the ability to managed stress effectively, striving to complete tasks promptly while maintaining a focus on ensuring the accuracy and quality of the outcomes. This experience has contributed to the trainee's resilience and adaptability in handling challenging situations within the given time constraints.

3.3 Reference Materials

Most of the reference materials utilised by trainees are found online. The trainee required to study Angular on Udemy which company offer, prior to working on project tasks. Generally, the trainee will search for solutions on websites such as Stack Overflow, GitHub, W3school, Angular, Ng-zorro, YouTube and so on to complete the given project. Furthermore, code reference from previous or other current website projects is also one of the effective methods to solve the coding issue.

3.4 Constructive Comments

Since iFAST Capital is a fintech company, the trainee able to gain knowledge of fundamental financial concepts including stock, banking products, bonds, unit trust, EPF, private retirement scheme (PRS), exchange traded fund (ETF), managed portfolio and so on. Additionally, the trainee has also learned the method to maintain

the codes that are clear, orderly, dynamic and simple to comprehend. For example, trainee required to differentiate the components which can be shared and have high reusability and thus, they should create and store the components inside the share folders. These components can be applied by calling their selectors. Problem solving is one of the significant knowledge and concepts be learned by trainee in iFAST Capital With the supervisor's guidance and assistance, the trainee learned many effective methods to trace coding and find the problem source and then, used the suitable mean to tackle the issue found. Therefore, it is strongly advised that upcoming interns to complete their industrial training at this organisation.

3.5 Conclusion

This chapter contained the trainee's acquired expertise, reference materials, and constructive comments at iFAST Capital.

CHAPTER 4

CONCLUSION

4.1 Introduction

This chapter will address the overall success of the industrial training, the trainee's challenges and how they were resolved as well as the trainee's thoughts and recommendations for future enhancements on this program.

4.2 Overall Achievement

The trainee has encountered the real working settings, work-related stress and the fulfilment that comes with being employed in the industry over these 20 weeks of industrial training. A trainee contributing to the iFAST Capital system's front-end development and enhancement, fixing reported issues, and improving the user interface. Each assignment has been allotted a fair timeframe and the trainee may do the tasks within the specified time and meet all the requirements. Apart from that, a few of the tasks posed challenges, prompting the trainee to seek guidance and assistance from colleagues or supervisors and explore resources like online courses and past project source code. Each assignment enables the trainee to pick up new skills, knowledge, and experience as a front-end developer. To bolster soft skills, the trainee learned effective communication with colleagues and supervisors, ensuring clarity and understanding in the interactions.

4.3 Problems and Execution

Trainees in the industrial training encounter various challenges, including technical issues, knowledge gaps and unfamiliarity with the work environment. Lack

of experience with specific programming approaches such as Angular and Postman which completely new to the trainee, leads to technical problem. Knowledge-based challenges hinge on the necessity for a strong foundation in basic programming logic which is essential to fix the errors and satisfy client demands. Additionally, it is also crucial for the trainee to acquaint herself with the actual work environment as practical experience is required. Despite these obstacles, the trainee has benefited much from the kind assistance from colleagues and supervisors, who voluntarily impart their expertise and offer sincere advice to speed up the trainee's learning process.

4.4 Opinion and Suggestion

Having undergone industrial training at iFAST Capital, the trainee has come to the realization that the university's curriculum should be updated to reflect the prevalent use of certain programming languages. For instance, students could benefit from exploring popular libraries like Ng-Zorro and Typescript which is a superset of JavaScript that is able to report types' errors to enhance the website UI in web programming course. Furthermore, the university is also recommended to provide a basic tutorial on the concept of building and developing a web structure using framework like Angular in application development course. The university can promote hands-on experience by encouraging students to construct a website from scratch using adobe XD as it provides students valuable exposure to real working environments.

Additionally, it is suggested that students to familiarize themselves with the essential software applications such as IntelliJ IDEA and Postman. These tools play a significant role in improving the efficiency and precision of IT-related tasks, making it essential for students to integrate them into their skill set.

4.5 Conclusion

The industrial training at iFAST Capital has been a valuable learning experience for the trainee, who highly recommends this organization to fellow juniors seeking industrial training opportunities. Industrial training is a pre-adaptation opportunity for students to industrial environments. The trainee has gained more understanding of both strengths and weaknesses during this period, providing crucial insights for future career planning. Recognizing the significance of regularly updating one's skill set and staying abreast of industry developments, the trainee is motivated to continually enhance their knowledge and acquire experience. Lastly, the trainee thoroughly enjoyed her time at iFAST Capital during the industrial training, further highlighting the positive and enriching nature of the experience.

APPENDIX

INDUSTRIAL TRAINING CHECKLISTS (PLACEMENT)

No.	Activities/Tasks	Tick (√)	Endorse by and date
1.	Report Duty To The Organization Approved by faculty	√	
2.	E-mail Report Duty Verification (BLI-1D) to faculty supervisor.	√	
3.	Upload Report Duty Verification (BLI-1D) in e-learning for course code SCS*4114.	√	
4.	Contact faculty supervisor to inform the job scope and organization information	√	
5.	Fill in organization supervisor information survey in ITS	√	
6.	<i>Update of Industrial Training site (address). Inform faculty supervisor and JKL, if any changes.</i>	√	
7.	Updating Industrial Training Logbook online – daily basis	√	
8.	Ensure that organization supervisor able to login to ITS successfully (Organization supervisor get ITS userid and password).	√	
9.	Faculty Supervisor Visit. Date: 22/1/2024	√	
10.	Industrial Training Presentation.	√	
11.	Performance evaluation by organisation supervisor. Online or <i>submission BLI-2B during supervisor visit.</i>	√	
12.	Submission of Industrial Training Logbook.	√	
13.	Submission of Industrial Training Report with checklist and achievement form as Appendix.	√	
14.	Fill in Industrial Training Performance Evaluation by student (BLI-1E) in ITS.	√	
15.	End Industrial Training	√	



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INDUSTRIAL TRAINING ACHIEVEMENTS

(This form must be filled by student and must be attached in the Industrial Training report)

Student's Name : Lee Jia Yee

Organisation : iFAST Service Center Sdn Bhd

No.	Task (List all tasks have been completed)	Month of Task Achieved				
		Month 1	Month 2	Month 3	Month 4	Month 5
1.	Software installation and setup	√				
2.	Angular practice and assignment	√	√			
3.	Front-end development on iFAST Capital project web application.			√	√	√
4.	Front-end update form type incompatible issue on iFAST Capital project web application.				√	√

Deliverable/Training reflection

(Outcomes that have been achieved)

- Developed front-end on iFAST Capital system web application.
- Fixed the form type incompatible issue on iFAST Capital system web application.
- Testing iFAST Capital system web application.

Student Signature: _____

Date: 15/1/2024

Approval

Organisation's Supervisor:

.....
(Signature)

Name: LEONG WAI YUI

Date: 19 JAN 2024

Faculty Supervisor :

.....
(Signature)

Name: Noor Hidayah Zakaria

Date: 31Jan 2024