ACKNOWLEDGEMENT

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INTRODUCTION

1.1 Introduction

Industrial training is a practical programmed/working experience for students that take during on their learning process at institution. Students will be exposed to the real working environment which they will be learn in professional by how it's done and what need to be done. With the learning process being explore more, it is a pleasure to have an outstanding experience for students.

As my course Bachelor of Information Technology in Software Engineering, the internship program allow me the opportunity to have a practical knowledge auditing procedure. In the report, I would like to describe my whole experience and problems that I had during this 3 months internship programs. With the start of experience in working world, I did my internship at Hitachi eBworx which start on the 19th March 2018 unill 8th June 2019. During this 3 months, supervisor Miss Celene Yap assign me as Software Tester for all the upcoming testing work that are need to be tested. The experience of being a software tester under one of the main project was my privileged.

Moreover, Hitachi eBworx gave a valuable lesson and experience because with the interaction between the technical and tester team, I able to get more knowledge on what needs to be done in order get certain part of function to success and in same time improve my working skill. Besides that, project manager Mr Irvin was so friendly and approach person that give us confidence in the work. Supervisor always help whenever there is any difficulty with the work, especially testing the web based system and mobile app.

In the report, I will explain on the task and job given by supervisor and experiences what I have learn throughout the whole industrial training. Furthermore, will also discuss on the problems that were encountered and its solution for each of it. Lastly, conclusion is derived at the last section of this report of what the whole experiences was been.

ORGANIZATIONAL BACKGROUND

2.1 History

Figure 2.1Hitachi Inspire the Next

In the history of Hitachi eBworx, the company was founded on May 2, 1998 with a vision to develop the company "To Be the most Trusted & Recognised Global Financial IT Solution Provider". Which this brings the company to granted MSC status on the February 11, 2002 by the Government of Malaysia and then subsequently converted to a public company on the April 25, 2003. On this day onward the company name changed to eBworx Malaysia Sendirian Berhad to eBworx Berhad in June, 2003. With good news, eBworx Berhad were registered on ACE Market (previously MESDAQ) of Bursa Malaysia Securities Berhad on November 17, 2003.

On the March 2, 2012, Hitachi made an offer to buy eBworx. Hitachi is a Global Fortune 500 company and one of the largest and highly admired companies in the world. Today, Hitachi eBworx is part of Hitachi's Financial Information Systems Division (FISD) which is part of the group's larger Information and Telecommunications Systems Company. Besides that, they are today a 100% subsidiary of Hitachi, Ltd and also Hitachi eBworx Group is a local financial solutions specialist, providing a wide range of innovative digital solutions to the financial services industry. Hitachi eBworx solutions is used by the super-regional financial institutions of Asia and global banks such as Bank of Tokyo-Mitsubishi UFJ, BNP Paribas, Maybank, CIMB Group, RHB Banking Group, OCBC Bank and Great Eastern Life and many other banks of the region in Malaysia, Singapore, Indonesia, Thailand, Vietnam, Cambodia, Philippines, Hong Kong SAR and People's Republic of China.

Figure 2.2 eBworx

Hitachi eBworx offshore development centre in Chengdu, People's Republic of China and Jakarta, Indonesia focuses on research and development for strategic applications and resource augmentation. They have privileged 100% delivery track record and with the experiences in over 200 project implementations, supported by banks, they are bring innovative and high-performance solutions addressing the banks business and technological needs. Hitachi eBworx are able to bring about solutions to address the banks' business needs whilst providing banks with consulting services in our areas of expertise.

2.2 Mission

- Consistent Organic and In-organic Growth Leveraging on Hitachi IT Group
- Profitable Growth Through Superior Customer Satisfaction
- To Sustain Growth Through Continuous Innovations that create richer lives and a better society
- Continuously Create Next Generation Leaders at all Levels

2.3 Objective(s)

The solution are developed on a uniform infrastructure technology platform and solution framework ensuring lower total cost of ownership.

2.4 Product(s)/Service(s)

- Transaction Banking

- Digital Transaction Banker (DTB)
- TradeSpring (TS)
- Credit Management
  - Digital Credit Management System (DCMS)
  - Digital Collection & Recovery System (DCRS)
- Retail Touchpoint
  - Digital Retail Internet Banking (DRIB)
  - Digital Mobile Banker (DMB)
- Digital Insurance
  - Unified Insurance Portal
  - Mobile POS
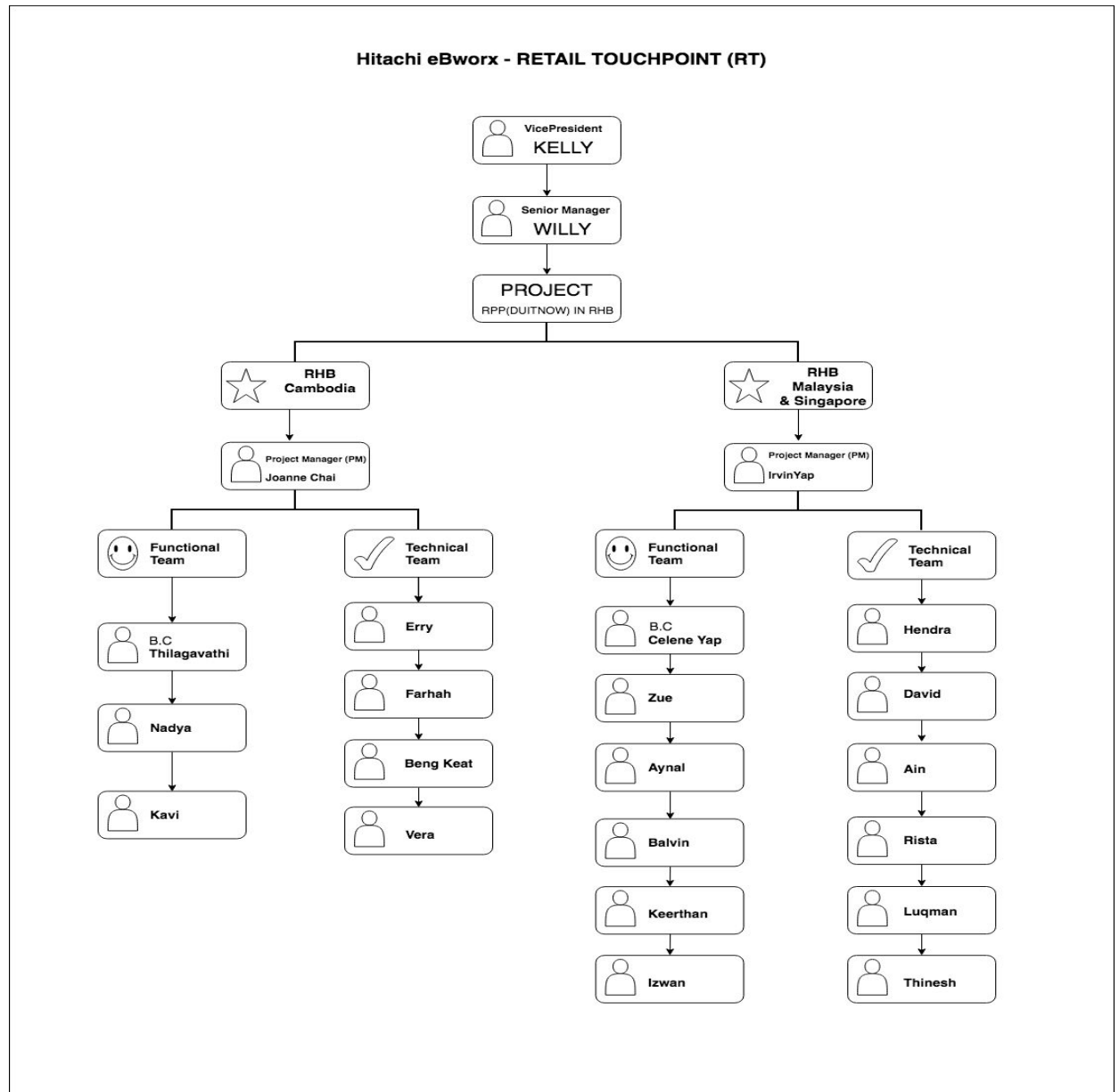
2.5 Management Structure

Figure 2.3 Management Structure of RHB Team (Hitachi eBworx)

SUMMARY OF THE JOB FUNCTIONS OR TASKS GIVEN BY ORGANIZATIONAL

3.1 Task Given by Organizational

The section explains about the various work and assignment that I have been done during the internship.

3.1.1 Brainstorm of RHB Banking System Project

- Supervisor assign tasks based on the functions which need to cover on internet bank system (IBK) and mobile bank app (MBK) of each functions flows.

- Each function has its own steps and each steps are needed to take screenshot.

- The screenshot is to give understand of how a particular functions goes through each steps.

- Prepare slides which insert all screenshot in step flow and present to supervisor and the team.

3.1.2 Mind Map Section

- Supervisor assign task based on the function that were highlighted with my name and should prepare a mind map for each functions.

- Use Xmind software in order to create mind map which it was little difficult to get used at first but then figure out how to use it.

- Each function has its own features such as dropdown, notification message, favourite setup, and more.

- Done with the mind map, I need to show my task to supervisor to check whether if there is anything left behind.

- Once it completed, I need to show to supervisor for double confirmation and explain to what each features has in the functions.

3.2 Jobs Give by Organizational

3.2.1 Testing on NAD Maintenance

- NAD Maintenance is known as National Addressing Database which user are   able to delete or inactive their mobile number. NAD functionality is user can   register their mobile number or IC and later on can perform transaction in   DuitNow.

- As tester role, I had to perform testing based on the given test script with test cases provided in it.

- On the first week of internship, supervisor briefly explain about RHB system and start to understand what the system can do and not.

- Later the team had to perform testing on the given test cases which need to finish it in 3 days.

- Myself and the team were separate the work in group so that it would be easy for us to finish the work on time.

- Testing NAD Maintenance was not easy job because it contains both tester and technical side to cooperate each other when there is changes need to done.

- Overall, the testing have done in 3 days and have been submit to the user to test it again.

3.2.2 Sanity Testing on MBK

- Sanity testing is to test the whole app in mobile by clicking and going through every functions whether it crash or functionality missing.

- Sanity testing is more on the mobile app which tester are needed to test the whole application from start to end.

- There were 364 test cases and some of it has not yet done.

- The testing have to done in a week and there were not having much time to do all in time because the UAT environment were giving problems such as "services temporary unavailable" (STU).

- So in order to done the work fast I finish two different testing of 100 test cases in 2 days and then with other test cases.

- Besides that, the team were focusing on the test cases that can be done and left the STU test cases at last, so that it would be easy for us to least done the one is functioning.

- The technical team were in shocked when they saw the internship student took overtime for 2 days in order to finish it before the following week started with new testing.

- On the 6th April 2018 Friday, it was the last day of Sanity testing and yet I and the team took overtime to finish as far as we can, but most of the testing have done just left with the STU testing.

3.2.3 FPX Testing

- Supervisor assign me to help technical team with FPX function and screenshot the screen flow.

- Supervisor request me to change my place to sit beside the technical staff so that it would easy for me to communicate with them.

- I have to use the SOA log file in order to know what does it write and read after each screen have been perform.

- For example, by clicking on the "cancel" button where does the screen flow goes if the user is at the login page.

- So overall it was a whole new thing where I learn how to look for the logs and where to find the code after each perform have done.

3.2.4 DuitNow Testing

- DuitNow is known as Retail Payment Platform (RPP) which was the first initial name. This new features was request by Bank Negara where now user can transfer money just by using their phone number or IC instead of using bank account number.

- Testing team start testing on the DuitNow function which this time it has a lot to test to done.

- The main goal is to test DuitNow and find any defect occur where then it has to raise in JIRA.

- Testing on the newest function is much needed because it is one of the functions that eBworx team working for.

- So overall, test team segregate the task to each so that it would not overlap one another.

3.2.5 Back Office Testing

- Back office is where all the details would be recorded when user perform any action on the front office. Back office helps technical to find solution such as error code, transaction record and many more.

- Back office testing mainly is test on the DuitNow to know whether the information perform on front office have record on back office.
- Test team segregate the work into three so that it would be easy for us to finish testing on the mentioned dateline.
- Overall, it can be done on time but there are many JIRA have been raise.

PROBLEMS ENCOUNTERED DURING THE TRAINING AND HOW THEY WERE HANDLED

4.1 Problems and Solution

Table 4.1 Problems and Solution of Internship

Problems	Solutions
Unable to open both internet banking and mobile (Android and iPhone) which it display "Service Temporarily Unavailable". This give difficulty to the testing team when the system stops run.	Inform to technical team to refresh the server. The server can be only ON, OFF, and REFRESH.
Lack of smartphone which requires to test the system in different android version and iOS phone.	Use company phone to test the system because in order to proceed with Sanity Testing, the team need to test on different android version and iOS. If there is not enough mobile, test team are needed to use their own phones to test.
Outlook application cannot open and use because the proxy that have been set to the HQ router so it would not open at project site.	Open Chrome and use Outlook there so that it would not affect like the application and can be send email and receive immediately.
Some steps in test case have been type wrongly so when we team test the system, the system displayed/executed differently from what have shown in test cases.	Type-in correct execution in the particular steps and test again in the system to ensure whether execute correct or not.
Test team is not able to connect SIT system to the second router because it is set as simulator.	In order the test team to open SIT system, test team are needed to connect to their laptop Wi-Fi to the main router which is HEB Router.

Test team are not authorise to ON the server and unable to proceed with their testing till the technical staff come over.	Once one of the technical staff came the test team are able to connect start testing on the system.

4.2 Picture of RHB IBK

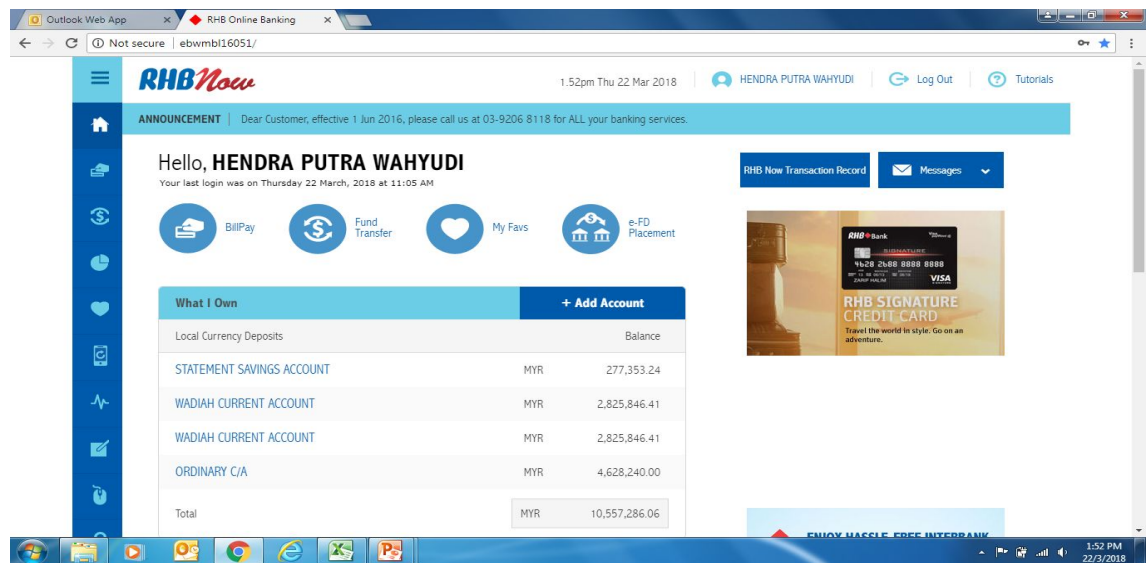The picture below shown is RHB Internet Baking System.
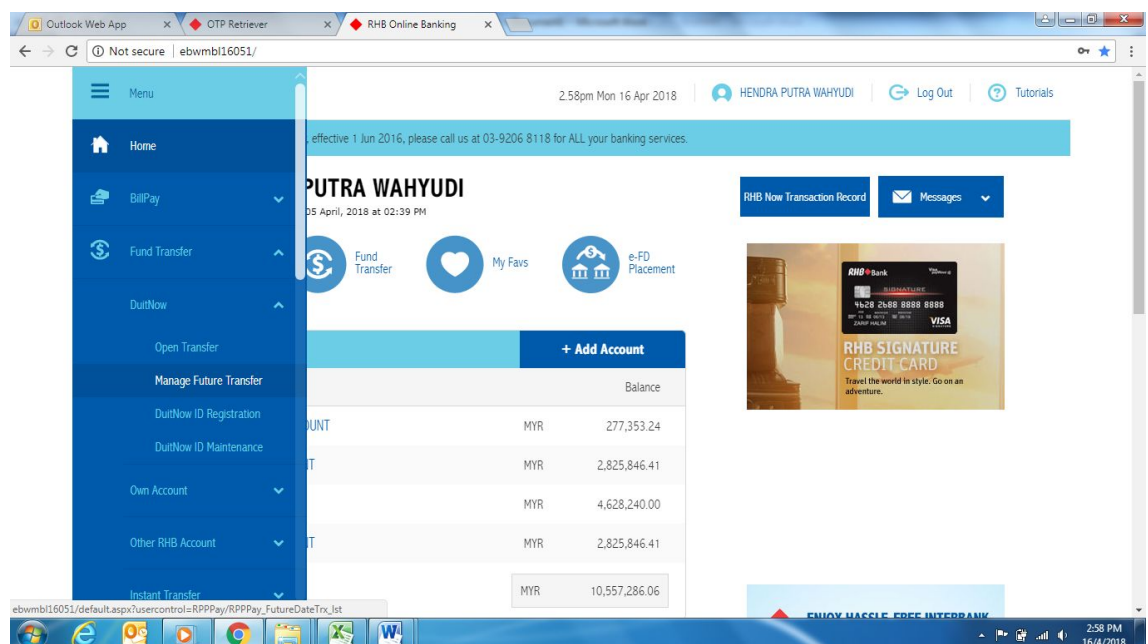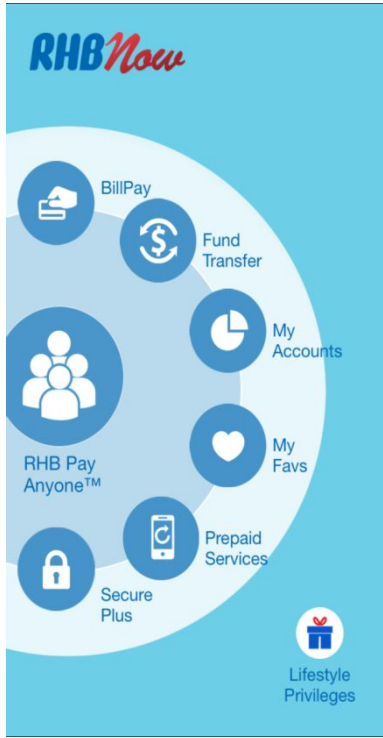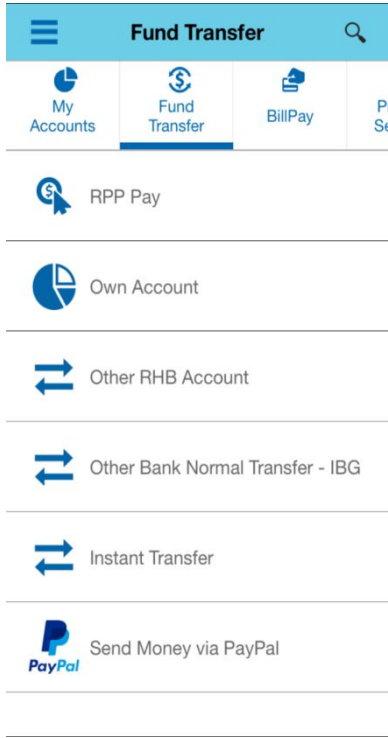

Figure 4.1 Main Page of RHB

Figure 4.2 RHB Side Menu

4.3 Picture of RHB MBK

The picture below shown is RHB Mobile Banking Application.

Table 4.2 Screenshot of RHB Apps

Figure 4.3 MBK Starting Page | *Figure 4.4 MBK Fund Transfer Page*

4.4 Personal Problems

Zero knowledge in Testing because it was my first time starting testing on a real system. As I start my internship, I was lack of idea and scared to start testing on real system, so in order to get clearly view of what the system all about and where to start, supervisor briefly explain each component and its functionality. Even though supervisor have briefly explain the system, I still having little confuse and stuck to catch up but by end of first week I have do get what some components and its functionality works. With the help of small assignment given by supervisor, it really helped me out and start to open up with my colleague especially supervisor. Sometime, I do not really get some

functionality after many explanation by supervisor, therefore, I consult supervisor to explain a little further which then later on can be avoid misunderstanding by irrelevant information.

Approaching lead technical team is another one of my problem because in order to ask few problems based on the system functions and supervisor not around it took me for a week to communicate with them. To prevent misunderstanding, asking one of head tester for further clarification so that it would be easy for me to test it. Avoid focusing a single direction, should think alternate solution, rather than stubborn and waste time to force the solution work. When testing both IBK and MBK, should segregate the task with the test team so that it would not take time to finish the testing.

Example of testing error:

- Miss execution step and start testing from beginning.
- Lack of time manage when testing need to done by a week or two.
- Lack of information of system function.
- Lack of support mobile for testing the application.
- App crash during testing which cause testing to stop.

SUMMARY OF EXPERIENCE GAINED

5.1 Skill Gained

5.1.1 Technical Skill

- Able to edit test script in excel so that other test team can go through steps easily.

- Find source in SOA Log to capture whether status have been log correctly or not.

- Back office where it shows what are each functionality has and error code that explain why it occur.

5.1.2 Soft Skill

- **Communication:** Each member in the team are needed to explain what task they have been done so far during the week and also the problems encounter during in the interval meeting with the project manager.

- **Time Management:** Avoid focusing on one single task because it may delay the whole work and it may cause other member to delay their work as well. The faster the work done, the more problem can solve on time.

- **Self-Motivate:** Even there are so much work that need to finish by end of the week, I motivate myself to stay till late night to finish as far as I can. This also would help team member to follow my self-motivation and stay till late night.

- **Self-Confidence:** During each testing, I found many issues regarding RPP Pay. With the problems raise, test member and I are unable to test some of the test case which gave us mood-out, but with the help of technical team solving each problems, test team had the confidence to test again as fast we can.

- **Presentation:** Supervisor gave an assignment when there is no testing to do which it relate to the project. The assignment is to capture each functionality of a function like where does the page goes when click

submit, what are the length of each text field and many more. All those screen capture are copy and paste in slide which then later present to supervisor. Why supervisor gave this assignment? because to know, how far I understand the system and what it does when a transaction perform.

CONCLUSION

6.0 Conclusion

In conclusion, during intern I figure out myself that I am lack of knowledge to conduct real world work, which my suggestion for tester field who willing to do test system go through the system as whole and then start testing based on the task given. Learning may take while to catch-up but it is a purpose to learn thoroughly so that in future can apply to any work. Other than understanding the system, communicate with head team in order to get a more clear information of the system.

Moreover, being a tester may looks easy at outside but when a beginner starts testing, that is when he/she realise testing a system for just one function is not easy job to done. With the help team of three or more tester work are able to done much faster but there are minor trouble to go through one-by-one. Tester are not just be a tester which they are also able to check the backend of a system in order to explore more to it. The more information are receive, the more work are able to done in time.

Besides that, I found some intern always late to enter office because of traffic jam and not familiar of the location, my suggestion to the student is to use navigation application to check where is the office location and estimate the traffic status on that time. Google Map have the function where it able to let user estimate the duration when you go out on certain time or even a shortcut.

Finally to be conclude my intern, I am glad to enter Hitachi eBworx as an intern to experience the real world working life, even in tough situation, but it was worth millions to gain knowledge and allow me to change from less knowledge in testing to eligible software tester that able to go through testing of any system in the market.

REFERENCES

7.0 References

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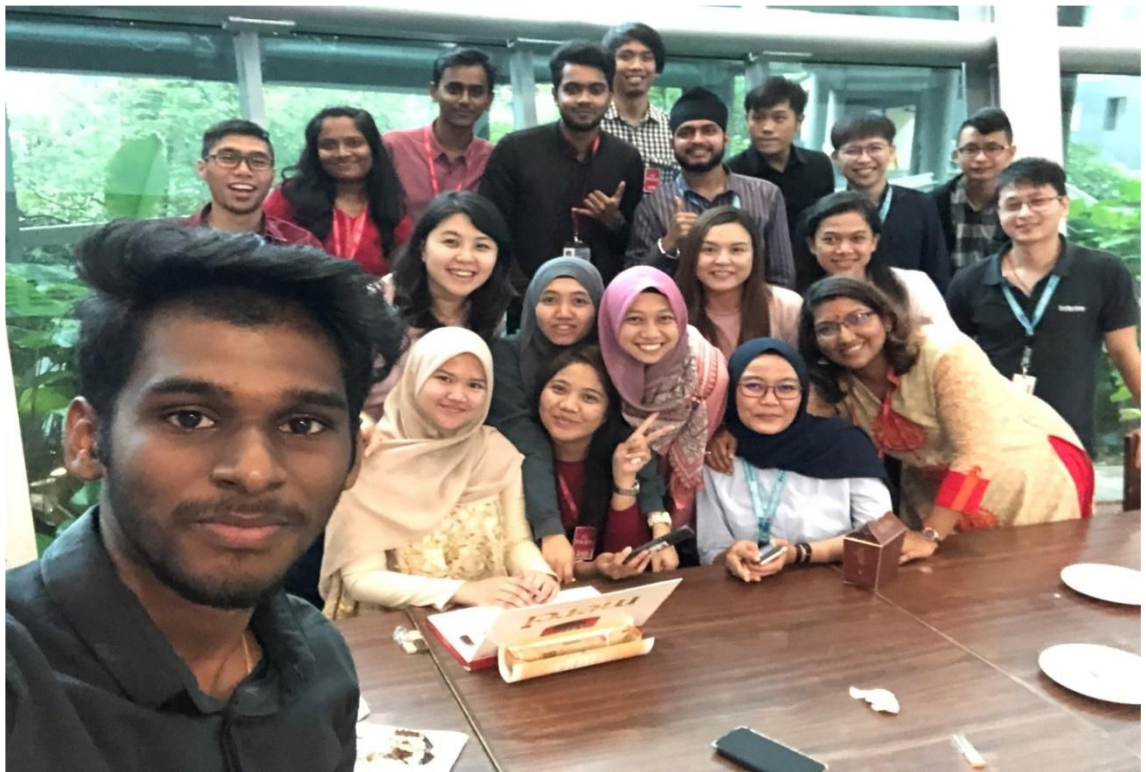
APPENDIX

8.0 Photos

Figure 8.1 Supervisor Birthday Celebration (Hitachi eBworx Team)

Figure 8.2 RHB Training Centre (Project Site)