Abstract of project presented to the School of Technology Management in fulfillment of the requirements for the degree of Bachelor in Computer Science.

**Web Based Payroll System**

By

**Siew Wing Fei**

**Jan 2013**

As for the abstract, it usually encompasses four (4) elements:  
  
1. Statement of problem of the research or project - issues addressed  
2. method used for implementation  
3. results and finding  
4. conclusion

Web based applications have evolved significantly over recent years and with improvements in security and technology there are plenty of good opportunities to develop a system as web based application.

This dissertation has covered a full report on the Web Based Payroll System developed as a prototype to solve the manual payroll system.

The Web Based Payroll System has the ability to update and maintain employee details, define deductions, tax, pay rates, overtime pay rates, generate payslip, generate charts, etc by using Ruby on Rails web framework, jQuery, jQuery UI, and Highcharts JS.

The Web Based Payroll System uses AJAX technology to exchange data with a server, and update parts of a web page without reloading the whole page, which makes the applications similar to a desktop application.

# Acknowledgment

First and foremost I thank to my family for helping me all the way from the very first day of my life.

Right after that I offer my sincerest gratitude to my supervisor, Mr. Amjad Hanesh, who has supported me throughout my studies and thesis with his patience and knowledge whilst allowing me the room to work in my own way. I attribute the level of my bachelor's degree to his encouragement and effort and without him this project and thesis, too, would not have been completed or written. Besides my academic studies, I have learned more than a lot from him, which includes RFID technology, Dot Net Framework, Mobile development, CCTV camera programming, and FTIR Multi Touch Screen development etc. One simply could not wish for a better and friendlier supervisor.

In my daily work I have been blessed and helped with a friendly and cheerful group of college staff, and fellow students, Mr. Bilal (School of Technology Management Coordinator),

Finally, I thank to my parents for supporting me, praying for me, throughout all my studies at University.

# Declaration

I declare this project work in my original work except for the quotations and citation which has been accordingly acknowledged. I also declare this project work has not been previously, and is not currently, submitted for any other degree at Binary University College.

(Signature)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SIEW WING FEI**

# List of Figures

[Figure 1: Web Accessibility components relation 4](#_Toc265504844)

[Figure 2: Use Case Diagram 23](#_Toc265504845)

[Figure 3: Requirement Diagram 27](#_Toc265504846)

[Figure 4: Generic overview of Facebook Aggregator 35](#_Toc265504847)

[Figure 5: Level 0 Data Flow Diagram 35](#_Toc265504848)

[Figure 6: Level 1 Data Flow Diagram 36](#_Toc265504849)

[Figure 7: All-in-one Architecture 39](#_Toc265504850)

[Figure 8: Flat Architecture Model 39](#_Toc265504851)

[Figure 9: Hub-and-spoke (or daisy) pattern 40](#_Toc265504852)

[Figure 10: Facebook Aggregator horizontal top bar 41](#_Toc265504853)

[Figure 11: Facebook Aggregator paging interface 41](#_Toc265504854)

[Figure 12: Wall post FBML tag 45](#_Toc265504855)

[Figure 13: Facebook Aggregator unit folder 49](#_Toc265504856)

[Figure 14: Black Box testing 50](#_Toc265504857)

[Figure 15: Request Application Specific Help from Facebook form 54](#_Toc265504858)

# List of Tables

[Table 1: Actors Grid 23](#_Toc265504859)

[Table 2: Use Cases Grid 24](#_Toc265504860)

[Table 3: Use Case Diagram Summary 24](#_Toc265504861)

[Table 4: Operating Environment 27](#_Toc265504862)

[Table 5: Roadmap changes of Facebook APIs 30](#_Toc265504863)

[Table 6: Five levels of testing 49](#_Toc265504864)

[Table 7: Test Case Planning Format 51](#_Toc265504865)

[Table 8: Test cases for Facebook Aggregator 51](#_Toc265504866)

**TABLE OF CONTENTS**