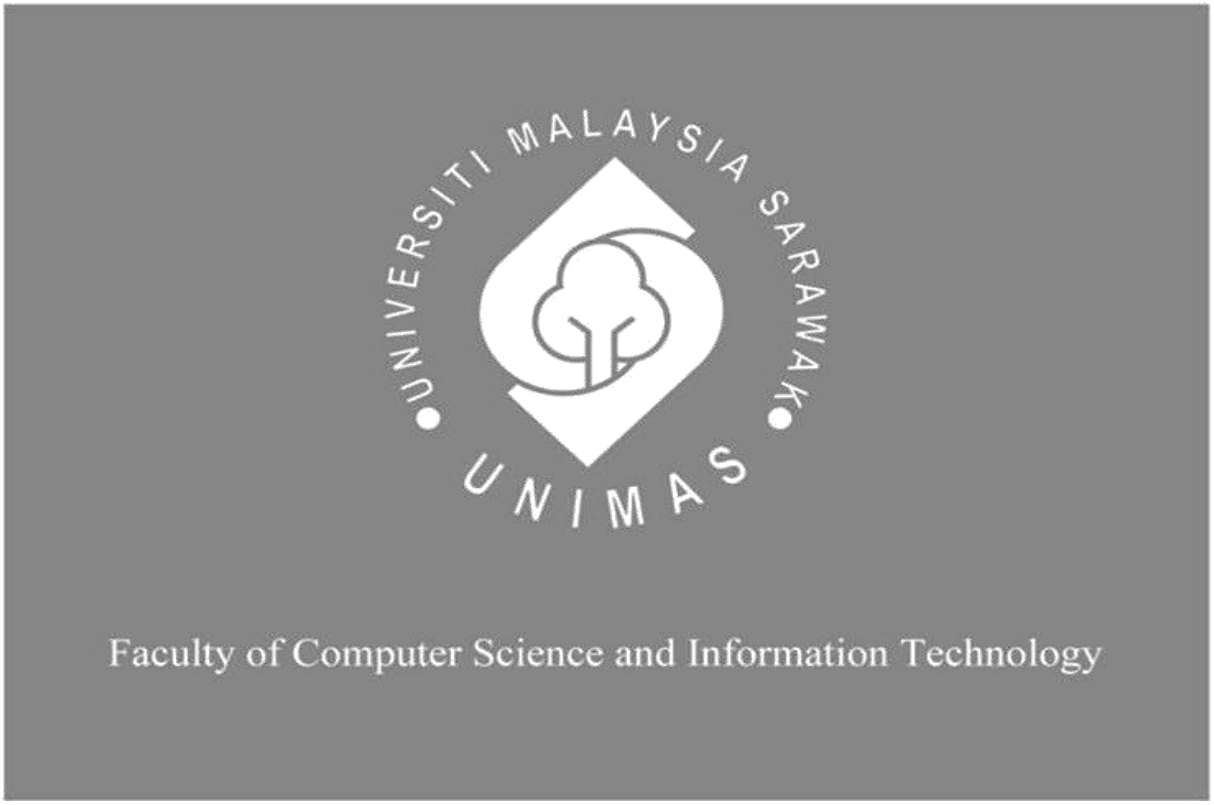

GYM MANAGEMENT SYSTEM FOR MN FITNESS GYM

Nur Farzana Binti Roslan

Bachelor of Computer Science with Honours

(Network Computing)

2019

GYM MANAGEMENT SYSTEM FOR MN FITNESS GYM

NUR FARZANA BINTI ROSLAN

This project is submitted in partial requirement of the
requirements for the degree of
Bachelor of Computer Science with Honours

Faculty
UNIVERSITI MALAYSIA SARAWAK
2019

FORM A

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FINAL YEAR PROJECT REPORT SUBMISSION

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(Please tick (√) where applicable)

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(Stamp & Signature)

15/07/2020
(Date)

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UNIVERSITI MALAYSIA SARAWAK

THESIS STATUS ENDORSEMENT FORM

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…….. JULY 2020

NUR FARZANA BINTI ROSLAN (53162)

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In the name of Allah, the Most Gracious, the Most Merciful

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ABSTRACT

Gym Management System for MN Fitness Gym is an online management system that will be used by the gym members, visitors and the management staff of MN Fitness Gym. This system will help the management staff to administer the gym member's record via online to replace the traditional method that the gym used. Previously, the MN Fitness Gym keep their member's record by only using the file paper-based system. The usage of the traditional method is not efficient because the method consumes time whenever an update or searching of gym's member's record is performed. Therefore, this system is proposed to solve the stated problem. Besides, this system is also proposed to enable the gym members or non-members to perform either registration, reservation or purchases activity on any of the gym's services without have to come to the counter. The development of the proposed system has been planned thoroughly by referring to the project's main objectives. The methodology that has applied during the development of the project is the Agile Methodology.

ABSTRAK

Sistem Pengurusan Gim untuk Gim Kecerdasan MN merupakan sebuah sistem pengurusan atas talian yang akan digunakan oleh ahli gim, pengunjung dan kakitangan pengurusan Gim Kercerdasan MN. Sistem ini akan membantu kakitangan pengurusan untuk mentadbir rekod keahlian ahli gim melalui atas talian bagi menggantikan kaedah tradisional yang digunakan oleh gim tersebut. Sebelum ini, Gim Kecerdasan MN menyimpan rekod keahlian gim dengan hanya menggunakan sistem berasaskan fail kertas. Penggunaan kaedah tradisional itu adalah tidak efisyen kerana kaedah tersebut memakan masa apabila terdapat sebarang pelaksanaan kemaskini atau pencarian tentang ahli gim dilakukan. Oleh itu, sistem ini dicadangkan untuk menyelesaikan masalah di atas. Selain itu, sistem ini juga dicadangkan untuk membolehkan ahli gim atau bukan ahli untuk melakukan sebarang aktiviti pendaftaran, tempahan atau aktiviti pembelian dengan hanya melalui atas talian tanpa perlu ke kaunter gim tersebut. Pembangunan bagi sistem cadangan telah dirancang secara teliti dengan berpandukan kepada objektif projek. Kaedah yang digunakan semasa pembangunan projek ini ialah Methodologi Agil.

CHAPTER 1: INTRODUCTION

1.1 Introduction

MN Fitness Gym is one of the many gyms located all around Sabah. The fitness center was established in 2015 and it has reached almost 500 registered members over the years. The gym manages to receive a few new members every month due to the strategic location and being as the only gym operating in the area. MN Fitness Gym provides exercise equipment for the gym members and gym visitors to practise fitness and exercise routine. Other than that, the fitness center also provides the personal trainer services for members that want to train personally to certified personal trainers. The services will include either training, fitness, nutrition, health advice and consultation. Lastly, the fitness center also involve in selling and providing stocks of various health-related supplement. Despite all the services being provided at MN Fitness Gym which is modern and updated, the system that is being used by the firm is still in traditional way. As of either registration for membership, booking of personal trainers and purchase of health supplement, visitors must go there by themselves and the process will be done in manual way. In order to resolve the issue, a web-based system is proposed to be developed to ease the gym management in handling all the services provided.

1.2 Problem Statement

Presently, MN Fitness Gym is still using the manual method in their gym's management. The registration of new members is done by filling out registration form paper. The management staff also keep their members' record by using papers and files, despite the increasing number of the gym's member. The execution of the traditional method is not efficient because it will lead to difficulty for the staff in order to keep track of their members' record. It

will also complicate the staff during membership renewal process as they must search for the files of respective members to make updates. The same procedures also occur for the personal trainers' services where the process of booking a personal trainer must be done manually at the counter as online booking system is not provided by the management staff. Overall, the manual management system that is being used by the gym is currently not efficient as it did not ease to gym management into a seamless operation. Due to the ineffective operations, a lot more procedures are taken in order to perform any process while it can be resolve easily using appropriate and better system.

1.3 Scope

The web-based system is developed to solve the issue of ineffective and inefficient management for MN Fitness Gym. It is improvement process in terms of management whereas previously the gym manages the membership registration by paper-based and is transform into a web-based system. By using the web-based system, all members' record can be kept digitally and securely. It will also ease the management staff if there have to do updates as they can look for respected members' record easily through the system. The system also will be developed with purpose to include all services provided by the gym, therefore members of the gym can reserve personal trainers directly via the management system without have to refer to the management staff like previously. Any payment transaction such as purchases of health supplement or membership renewal payment also can be done through the system. Generally, the development of the web-based system will totally transform the old poor management system into a new system which will ease the gym management for a better and seamless operation.

1.4 Aims and Objectives

The aims and objectives of this project are:

i. To develop a web-based system to replace the manual (paper-based) system used by the gym's management.

ii. To enable gym members to select, self-book and communicate directly to their personal trainers through the management system.

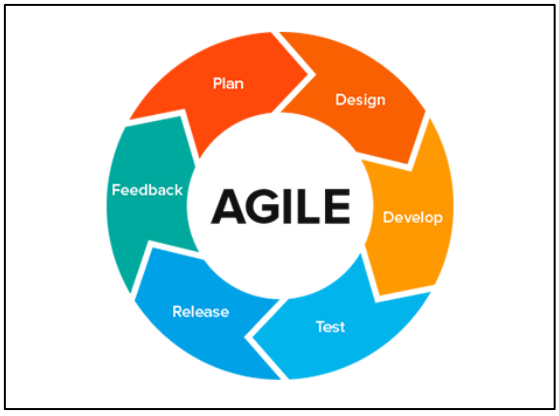
iii. To enable the gym management to add, edit, delete the membership details, gym details, trainer details, health product details, payment details and others.

iv. To generate the monthly usage and income report.

1.5 Brief Methodology

The primary methodology used to implement the project is the Agile methodology. The Agile methodology is chosen because it allows for any changes made from time to time as well as being more flexible than other methodology.

Figure 3.1: Agile methodology



1.5.1 Plan

This phase is covered to determine all of the possible plan to achieve the objective of the project. This phase will also include requirement and analysis phase where the requirement gathering is conducted to obtain information for the system. All of the possible requirement is gathered using various techniques such as from observation, interviews and literature reviews.

1.5.2 Design

In design phase, the layout of the proposed system is designed. The system designs will also include the designs of wireframe, architecture and database. More of the design part will be covered and explained in Chapter 3.

1.5.3 Develop

The system will be developed by referring to the main system requirement and with the application of HTML and PHP. Each of the webpage will act as a single unit which will be integrated later at the testing phase.

1.5.4 Test

The testing phase is the phase where all of the webpages developed will be integrated as a single system and is tested for its usability. This phase is executed with aims to ensure that the developed system has meet all the system requirements stated previously.

1.5.5 Release

Once the testing phases is done, the developed system will be release and given to the intended organization, the MN Fitness Gym.

1.5.6 Feedback

The developed system will be reviewed by MN Fitness Gym and will be revised based on users' feedback.

1.6 Significance of Project

This project is implemented to develop a web-based system that can function to replace the traditional management system used by the fitness center. It is expected to assist the gym's management staff to manage the process of keeping track of the members memberships record. As the record is kept digitally it will ensure the safety and privacy of the records as the records will not be prone to physical damage as using paper-based system. Also, it helps the staff in managing either registration for new members, membership renewal, personal trainers booking procedure and others. The development of this system will transform the gym's management and increase efficiency and effectiveness to a better and seamless operation.

1.7 Project Schedule

This project is expected to complete within 120 days in the first semester of the 2019/2020 session. It will start on 29th September 2019 and finish on 11 January 2020. The

details of the project schedule for this project will be shown in the Appendix section. While, Table 1.1 will show the general overview of the project schedule.

Table 1.1: Project Schedule of the Gym Management System for MN Fitness Gym

Tasks	Start Date	Finish Date	Duration (days)
Final Year Project 1	13/09/19	11/01/20	120
Identify Project Title	13/09/19	16/09/19	3
Applying Project Supervisor (SV)	16/09/19	18/09/19	2
Prepare Project Proposal	13/09/19	30/09/19	17
Research on Project	19/09/19	21/09/19	2
Analyse Project Requirement	22/09/19	24/09/19	2
Determine Project Scope	25/09/19	27/09/19	2
Determine Methodology	27/09/19	29/09/19	2
Submission of Project Proposal for SV Proposal	30/09/19	30/09/19	1
Obtain Approval & Comment by Reviewers	05/10/19	05/10/19	1
Submission of Full Proposal	19/10/19	19/10/19	1
Chapter 1: Introduction	19/10/19	26/10/19	7
Finalize the Project proposal	20/10/19	22/10/19	2
Determine the Project outline	23/10/19	25/10/19	2
Submission of Chapter 1	26/10/19	26/10/19	1
Chapter 2: Literature Review	26/10/19	16/11/19	21
Review websites, books, journal and articles	27/10/19	15/11/19	19
Submission of Chapter 2	16/11/19	16/11/19	1
Chapter 3: Requirement Analysis & Design	16/11/19	05/12/19	19
Gather User Requirements	16/11/19	19/11/19	3
Create Data Flow Diagram (DFD)	20/11/19	22/11/19	2
Design the proposed system	23/11/19	27/11/19	4
Create a Mock-up	28/11/19	04/12/19	6
Submission of Chapter 3	05/12/19	05/12/19	1
Submission of FYP 1 Final Report & Paper	06/12/19	12/12/19	1
Finalize the Project Report	07/12/19	11/12/19	4

Submission of FYP 1 Final Report & Paper	12/12/19	12/12/19	1

1.8 Expected Outcome

At the end of this project, a web-based system is expected to develop at full-scale. The development of the project will help to solve the traditional system of gym's management by replacing it with the web-based system for the new gym's management. With the development of the system, staff can easily handle the members' record as well as providing the existing services through online system. Thus, this project will achieve its objectives and complete successfully.

1.9 Project Outline

1.9.1 Chapter 1: Introduction

Chapter 1 is the introduction of the proposed project. It covers the project details such as problem statement, project scope, aims and objectives, the methodology used, significance of project, project schedule and the expected outcome of the project. The problem statement describes the issue faced by the user in the current system and the development of the project. While the objectives explain the project's target which is expected to be accomplish by the of the development phases. The project's scope will list out the limitation of the project to be developed. While the methodology while describes the framework used to develop the project. As for the project schedule, a Gantt chart is included to represent the project schedule and to shows the project phases done in each of time period. Lastly, the expected outcome describes the results of the proposed system at the end of its development.

1.9.2 Chapter 2: Literature Review

Chapter 2 describes the review and comparison based on existing or similar system to the proposed system. The study is done in many aspects to help provide a clear view of the proposed system. Studies related to the existing system is done based on various sources, such as articles, journals, websites and manual books. Besides, limitation of the existing systems is also included by showing comparison between the existing and proposed systems.

1.9.3 Chapter 3: Requirement Analysis and Design

This chapter focuses on the methodology used in the project development. In this project, the Agile Method – Rapid Application Development (RAD) Methodology is applied. It covers the proposed system development based on phases in the Agile Method. Besides, this chapter will also describe the proposed system overall designs, such as architecture design, database design, user-interface design and includes diagrams such as Data Flow Diagram (DFD), Entity Relationship Diagram (ERD), Data Dictionary and others.

1.9.4 Chapter 4: Implementation and Testing

This chapter will describe the implementation that occurs in the proposed system during the development process. Besides, this chapter will also discuss the structure and the interfaces of the systems, using screenshots and interfaces layouts. Also, the testing phases is included in this chapter where the proposed system will be tested and evaluated to improve its performance.