



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

# **MYTIMEMASTER: DEVELOPMENT OF TIME MANAGEMENT SYSTEM FOR UNDERGRADUATE UPSI STUDENTS**



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

**JESSICA TAN SZE SZE  
D20191090038**

**FACULTY OF ART, COMPUTING & CREATIVE INDUSTRY  
UNIVERSITI PENDIDIKAN SULTAN IDRIS**

**2023**



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

# MYTIMEMASTER: DEVELOPMENT OF TIME MANAGEMENT SYSTEM FOR UNDERGRADUATE UPSI STUDENTS

JESSICA TAN SZE SZE  
D20191090038



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE BACHELOR OF SOFTWARE ENGINEERING  
(EDUCATIONAL SOFTWARE) WITH HONOURS

FACULTY OF ART, COMPUTING AND CREATIVE INDUSTRY  
UNIVERSITI PENDIDIKAN SULTAN IDRIS

2023



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi



## FAKULTI SENI, KOMPUTERAN DAN INDUSTRI KREATIF

### PERAKUAN KEASLIAN PENULISAN

Nama Pelajar: Jessica Tan Sze Sze

No. Pendaftaran: D20191090038

Nama Ijazah: Sarjana Muda Kejuruteraan Perisian (Perisian Pendidikan) dengan  
Kepujian

Bidang Pengkhususan: Perisian Pendidikan

Tajuk Projek: MYTIMEMASTER: DEVELOPMENT OF TIME MANAGEMENT  
SYSTEM FOR UNDERGRADUATE UPSI STUDENTS

Saya sahkan bahawa segala bahan yang terkandung dalam laporan projek tahun akhir ini adalah hasil usaha saya sendiri. Sekiranya terdapat hasil kerja orang lain atau pihak lain sama ada diterbitkan atau tidak (seperti buku, artikel, kertas kerja, atau bahan dalam bentuk yang lain seperti rakaman audio dan video, penerbitan elektronik atau Internet) yang telah digunakan, saya telah pun merakamkan pengiktirafan terhadap sumbangan mereka melalui konvensyen akademik yang bersesuaian. Saya juga mengakui bahawa bahan yang terkandung dalam laporan projek tahun akhir ini belum lagi diterbitkan atau diserahkan untuk program atau diploma/ijazah lain di mana-mana universiti.

17/2/2023

Tarikh

Tandatangan Pelajar

### Perakuan Penyelia:

Saya akui bahawa saya telah membaca karya ini dan pada pandangan saya karya ini adalah memadai dari segi skop dan kualiti untuk tujuan penganugerahan Ijazah Sarjana Muda Pendidikan (Teknologi Maklumat / Multimedia / Reka Bentuk Berkomputer) dengan Kepujian.

27/2/23

Tarikh

Tandatangan Penyelia

(Profesor Madya Dr. Nor Hasbiah binti Ubaidullah)





## ACKNOWLEDGEMENT

First and foremost, praises and thanks to the God, for His showers of blessings throughout my research work to complete the research successfully.

I would like to express my sincere gratitude to my supervisor, Profesor Madya Dr. Nor Hasbiah binti Ubaidullah, for her continuous support and guidance throughout the final year project development. As my supervisor, she had supported me in all stages of this work with so much patience and had given me precious advices whenever questions had arised. Under her guidance, I am encouraged to apply the knowledge and skills gained in this final year project to completely design and develop a fully functioning system at the end of the semester.

I would also like to thank all my fellow coursemates for all their information sharing, dedication to discussions and numerous motivations given to move forward together in completing the thesis writing. Also, my special appreciation and thanks to all the respondents who participated in the data collection and thus helped in the completion of this research. All the valuable time, attention and cooperation given along the data collection process are very much appreciated.

Last but not least, I would like to express my profound gratitude to my parents and to my siblings for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. None of this could have happened without them.





## ABSTRAK

Dalam persekitaran yang pantas dan berdaya saing hari ini, keupayaan pelajar untuk menguruskan masa mereka menjadi amat penting, namun, ramai pelajar menghadapi kesukaran untuk berlatih atau tidak tahu bagaimana untuk menguruskan masa mereka atau mengendalikan masa. Oleh itu, kajian ini memaparkan penyelidikan dan mencadangkan pembangunan sistem pengurusan masa untuk pelajar sarjana muda UPSI supaya mudah merancang dan mengurus masa mereka dengan berkesan untuk tugas akademik. Untuk membangunkan sistem yang dicadangkan bagi projek ini, metodologi model Prototaip Evolusi diikuti untuk memastikan proses pembangunan sistem berjalan lancar dalam masa yang diperuntukkan. Model ini terdiri daripada lima fasa: pembangunan spesifikasi abstrak, pembinaan sistem prototaip, penilaian sistem prototaip, sistem mencukupi dan penyampaian sistem. Populasi kajian terdiri daripada pelajar sarjana muda program Sarjana Muda Kejuruteraan Perisian (AC10) dan Sarjana Muda Pendidikan Teknologi Maklumat (AT20) di Universiti Pendidikan Sultan Idris (UPSI) dalam kohort A191 sesi akademik 2019/2020. Bagi mencapai objektif kajian ini, kajian ini menggunakan reka bentuk kuantitatif untuk menilai kebolehgunaan sistem dalam kalangan pelajar sarjana muda. Kesimpulannya, sistem yang dicadangkan, MyTimeMaster, diharapkan dapat menggalakkan dan menyokong pelajar di peringkat pengajian tinggi untuk mengamalkan pengurusan masa yang lebih baik untuk tugas akademik pada masa akan datang.





## MYTIMEMASTER: DEVELOPMENT OF TIME MANAGEMENT SYSTEM FOR UNDERGRADUATE UPSI STUDENTS

### ABSTRACT

In today's fast-paced and competitive environment, students' ability to manage their time is becoming extremely important, however, many students face difficulties to practice or do not know how to manage their time or handle time. This study, therefore, presents the research and proposes the development of a time management system for undergraduate UPSI students to easily plan and manage their time effectively for academic tasks. To develop the proposed system for this project, the Evolutionary Prototyping model methodology was followed to ensure the system development process runs smoothly in the allocated time. The model consists of five phases: develop abstract specification, build prototype system, evaluate prototype system, system adequate and deliver system. The population of the study comprised undergraduate students from the Bachelor of Software Engineering (AC10) and Bachelor of Information Technology Education (AT20) programs at Universiti Pendidikan Sultan Idris (UPSI) in the cohort A191 academic session 2019/2020. To achieve the objective of this research, this study uses a quantitative design to evaluate the system's usability among undergraduate students. It is thus hoped that the proposed system, MyTimeMaster, will encourage and support students in higher education to practice better time management for academic tasks in the future.



## TABLE OF CONTENTS

	Page
PERAKUAN KEASLIAN PENULISAN	i
ACKNOWLEDGEMENT	ii
ABSTRAK	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ABBREVIATIONS	xv
LIST OF APPENDICES	xvi

## CHAPTER 1 INTRODUCTION

1.1	Introduction	1
1.2	Research Background	3
1.3	Problem Statement	5
1.4	Research Objectives	7
1.5	Research Questions	7
1.6	Scope of Project	8
1.7	Significance of Study	9
1.8	Conclusion	10

## CHAPTER 2 LITERATURE REVIEW

2.1	Introduction	11
2.2	Time Management	12
2.3	Dimensions of Time Management	14



2.3.1	Long Range Planning	14
2.3.2	Short Range Planning	15
2.3.3	Time Attitude	16
2.4	Benefits of Time Management	17
2.5	Literature Review of Related Work	20
2.5.1	Impact of Time-Management on the Student's Academic Performance: A Cross-Sectional Study	20
2.5.2	Time Management Challenges on Students' Academic Performance: A Case Study of a Rural University in Limpopo Province, South Africa	21
2.5.3	Promoting Time Management and Self-Efficacy Through Digital Competence in University Students: A Mediation Model	21
2.5.4	Automated Task Management System Using Analytical Hierarchy Process	23
2.5.5	The Development of MyMobileSLT: A tool for student time management skills	24
2.6	Comparison of Existing System	24
2.6.1	myHomework	24
2.6.2	TickTick	27
2.6.3	iStudiez Pro	29
2.7	Conclusion	33

## CHAPTER 3 RESEARCH METHODOLOGY

3.1	Introduction	34
-----	--------------	----





3.2	Software Development Life Cycle (SDLC)	35
	Methodology	
3.3	Software Development Life Cycle (SDLC) Model	36
3.3.1	Waterfall Model	36
3.3.2	Rapid Application Development (RAD) Model	37
3.3.3	Evolutionary Prototyping Model	38
3.4	Methodological Development Design	40
3.5	Methodology Phases	41
3.5.1	Develop Abstract Specification	41
3.5.2	Build Prototype System	42
3.5.3	Evaluate Prototype System	43
3.5.4	System Adequate	43
3.5.5	Deliver System	44
3.6	Research Design	44
3.7	Research Population	45
3.8	Research Instrument	45
3.9	Data Collection and Analysis	47
3.10	Conclusion	47

## CHAPTER 4 PRODUCT DESIGN AND DEVELOPMENT

4.1	Introduction	49
4.2	Installation and Configuration of System Components	50
4.2.1	Laragon	50
4.2.2	Visual Studio Code	51
4.3	Database Design	52
4.3.1	HeidiSQL	53
4.4	Interface Design	54

4.4.1	Register Account	55
4.4.2	Login	55
4.4.3	Admin Interface	56
4.4.3.1	Admin Dashboard	56
4.4.3.2	Admin Profile Management	57
4.4.3.3	Admin User Management	58
4.4.3.4	Admin System Management	61
4.4.4	MyTimeMaster User Interface	63
4.4.4.1	MyTimeMaster User Dashboard	63
4.4.4.2	MyTimeMaster User Profile Management	64
4.4.4.3	MyTimeMaster User Task Management	64
4.4.4.4	MyTimeMaster User Course Management	68
4.4.4.5	MyTimeMaster User Schedule Management	71
4.4.4.6	MyTimeMaster User Goal Management	75
4.5	Conclusion	78

## CHAPTER 5 RESEARCH FINDINGS

5.1	Introduction	79
5.2	Research Instrument	80
5.3	Data Analysis and Discussion	80
5.3.1	Respondent Demography Analysis	81

5.3.1.1	Gender	81
5.3.1.2	Age	82
5.3.2	System Usability Analysis	83
5.3.2.1	Question 1: I think that I would like to use this web-based system frequently	85
5.3.2.2	Question 2: I found the system unnecessarily complex	86
5.3.2.3	Question 3: I thought the system was easy to use	87
5.3.2.4	Question 4: I think that I would need the support of a technical person to be able to use this system	88
5.3.2.5	Question 5: I found the various functions in this system were well integrated	89
5.3.2.6	Question 6: I thought there was too much inconsistency in this system	90
5.3.2.7	Question 7: I would imagine that most people would learn to use this system very quickly	91
5.3.2.8	Question 8: I found the system very cumbersome (hard) to use	92
5.3.2.9	Question 9: I felt very confident using the system	93
5.3.2.10	Question 10: I needed to learn a lot of things before I could get going with this system	94

5.3.3	Usability Score Analysis	95
5.4	Conclusion	96

## CHAPTER 6 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

6.1	Introduction	97
6.2	Summary of Research	98
6.3	Discussion of Research	99
6.3.1	Requirements to develop a time management system	100
6.3.2	Development of a time management system	101
6.3.3	Usability (ease of use) of a time management system	102
6.4	Implication of Study	104
6.4.1	Students will be aware of their responsibility for their work and role	104
6.4.2	Students will be able to improve their productivity and work quality	105
6.5	Recommendations for Future Work	105
6.5.1	Hybrid application	106
6.5.2	Push notifications and set reminders feature	106
6.6	Conclusion	107

REFERENCES	108
------------	-----



## LIST OF TABLES

Table No.		Page
Table 2.1	Comparison of Existing Systems	32
Table 3.1	Comparison of Software Development Life Cycle (SDLC) Model	39
Table 3.2	Study Population	45
Table 3.3	Description of Five-point Likert Scale	46
Table 5.1	Gender Demography	81
Table 5.2	Age Demography	81
Table 5.3	SUS Likert Scale	83
Table 5.4	SUS Survey Questions	84
Table 6.1	Objectives and Achievements of MyTimeMaster	99





## LIST OF FIGURES

Figure No.		Page
Figure 2.1	Homepage of myHomework	26
Figure 2.2	Main Menu of myHomework	26
Figure 2.3	Homepage of TickTick	28
Figure 2.4	Main View of TickTick	28
Figure 2.5	Calendar Display of TickTick	29
Figure 2.6	Today Overview of iStudiez Pro	30
Figure 2.7	Full Interactive Calendar Timeslot of iStudiez Pro	31
Figure 2.8	Assignments of iStudiez Pro	31
Figure 3.1	Evolutionary Prototyping Model	41
Figure 4.1	Interface of Laragon	51
Figure 4.2	Interface of Visual Studio Code	52
Figure 4.3	Interface of HeidiSQL	54
Figure 4.4	Interface of Register Account in MyTimeMaster	55
Figure 4.5	Interface of Login in MyTimeMaster	56
Figure 4.6	Interface of Admin Dashboard in MyTimeMaster	57
Figure 4.7	Interface of Edit Admin Profile in MyTimeMaster	58
Figure 4.8	Interface of Admin User Management in MyTimeMaster	59
Figure 4.9	Interface of Add User in MyTimeMaster	59
Figure 4.10	Interface of Edit User in MyTimeMaster	60
Figure 4.11	Interface of Delete User in MyTimeMaster	60
Figure 4.12	Interface of Edit System Setting in MyTimeMaster	62
Figure 4.13	Interface of MyTimeMaster User Dashboard	63





Figure 4.14	Interface of Edit MyTimeMaster User Profile in MyTimeMaster	64
Figure 4.15	Interface of MyTimeMaster User Task Management in MyTimeMaster	65
Figure 4.16	Interface of Add Task in MyTimeMaster	66
Figure 4.17	Interface of Edit Task in MyTimeMaster	66
Figure 4.18	Interface of View Task in MyTimeMaster	67
Figure 4.19	Interface of Delete Task in MyTimeMaster	67
Figure 4.20	Interface of MyTimeMaster User Course Management in MyTimeMaster	68
Figure 4.21	Interface of Add Course Interface in MyTimeMaster	69
Figure 4.22	Interface of Edit Course Interface in MyTimeMaster	69
Figure 4.23	Interface of View Course Interface in MyTimeMaster	70
Figure 4.24	Interface of Delete Course in MyTimeMaster	70
Figure 4.25	Interface of MyTimeMaster Schedule Management in MyTimeMaster	71
Figure 4.26	Interface of Add Schedule in MyTimeMaster	72
Figure 4.27	Interface of Edit Schedule in MyTimeMaster	72
Figure 4.28	Interface of View Schedule in MyTimeMaster	73
Figure 4.29	Interface of Delete Schedule in MyTimeMaster	73
Figure 4.30	Interface of Monthly Calendar View in MyTimeMaster	74
Figure 4.31	Interface of Weekly Calendar View in MyTimeMaster	74
Figure 4.32	Interface of Daily Calendar View in MyTimeMaster	75
Figure 4.33	Interface of MyTimeMaster User Goal Management in MyTimeMaster	76
Figure 4.34	Interface of Add Goal in MyTimeMaster	76





Figure 4.35	Interface of Edit Goal in MyTimeMaster	77
Figure 4.36	Interface of View Goal in MyTimeMaster	77
Figure 4.37	Interface of Delete Goal in MyTimeMaster	78
Figure 5.1	Gender Demography of Respondents	82
Figure 5.2	Age Demography of Respondents	83
Figure 5.3	Survey Respondents Question 1	85
Figure 5.4	Survey Respondents Question 2	86
Figure 5.5	Survey Respondents Question 3	87
Figure 5.6	Survey Respondents Question 4	88
Figure 5.7	Survey Respondents Question 5	89
Figure 5.8	Survey Respondents Question 6	90
Figure 5.9	Survey Respondents Question 7	91
Figure 5.10	Survey Respondents Question 8	92
Figure 5.11	Survey Respondents Question 9	93
Figure 5.12	Survey Respondents Question 10	94
Figure 5.13	Usability Score Calculation Data	95





## LIST OF ABBREVIATIONS

AHP	Analytical Hierarchy Process
ASP	Active Server Page
CSS	Cascading Style Sheets
GPA	Grade Point Average
GTD	Getting Things Done
HTML	Hypertext Markup Language
ICT	Information and Communications Technology
KAU	King Abdulaziz University
MADLC	Mobile Application Development Cycle
Ph.D	Doctor of Philosophy
PHP	Hypertext Preprocessor
RAD	Rapid Application Development
SDD	Software Design Document
SDLC	Software Development Life Cycle
SQL	Structured Query Language
SRS	Software Requirement Specifications
STP	Software Testing Plan
SUS	System Usability Scale
UPSI	Universiti Pendidikan Sultan Idris



## LIST OF APPENDICES

A	Software Requirement Specifications
B	Software Design Document
C	Software Testing Plan



## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Time is a valuable resource. It is the only resource that cannot be stored for future use, cannot be modified, cannot be returned once spent, and is utilised entirely at the owner's choice. No one can stop time, but everyone can choose how to spend the time that is available to them (Mercanlioglu, 2010). In today's fast-paced and competitive environment, students' ability to manage their time is becoming extremely important. Effective time management can contribute to improved academic achievement and decreased levels of anxiety in students. Unfortunately, many students struggle to create a balance between their academics and their daily life (Adams & Blair, 2019). According to Razali, Russian, Gan and Arbin (2018), the flexibility and freedom of a higher education



institution might distract students who have not acquired time management skills. Hence, due to poor time management, students at the university level are often under pressure to finish all of their tasks at hand one at a time.

Apart from that, students' low self-motivation and lack of goal-setting and task prioritisation also have a significant impact on student time management. Time management is undeniably important for every university student to achieve and maintain great academic success. In their study, Adams and Blair (2019) found that students' ability to set goals and prioritise tasks, in addition to their perceived control of time, were the time management behaviours that had the most significant positive link with semester grade point average and cumulative grade point average. Specifying goals, planning, prioritising, and monitoring prove to have an influence on achieving positive results in time management (Hashim et al., 2020). Hence, goal setting and task prioritising in time management are essential for students to effectively plan the time allocated for each of their academic tasks. In other words, a proper time management system is very important to support students in higher education in better organising their time for academic tasks. Therefore, this time management system (MyTimeMaster) is proposed for undergraduate students to easily stay organised and motivated in managing their time effectively for academic tasks.

This thesis is divided into six chapters, each of which will be outlined and discussed in further detail. Chapter one provides an overview of the research study. In this chapter, the introduction, research background, problem statement, research objectives,



research questions, scope and significance of the study are described. Chapter two presents a review of the literature on related work as well as a comparison of existing system. Meanwhile, chapter three will describe the research methodology that has been used and the research design. Next, in chapter four, the software development methodology, system design and software being used will be explained in detail. Then, chapter five will outline the important findings of the research, demonstrating the real outcomes obtained throughout the project. Finally, chapter six will contain the conclusion of the research findings and provide recommendations for future enhancements.

## 1.2 Research Background

In today's era of technological advancement, web-based application has become a major part of our everyday life. Over the years, the development of web-based applications has grown significantly, changing more and more manual workflow into more systemized processes. According to Murugesan and Ginige (2008), web-based systems and applications today provide a varied range of functionality to a huge number of users. In other words, a web-based application can be built for a wide range of purposes and used by anyone, from businesses to individuals for a number of reasons. A web-based application is a software application that is stored on a distant server and distributed through the Internet using a browser interface. The phrase "web-based" refers to software that operates on a web browser. As opposed to traditional desktop applications, web-based applications do not require any downloads and can be accessed from any

device connected to a network through web browsers such as Mozilla Firefox, Safari, and Google Chrome. Hence, web-based applications are simple to use, quick and more convenient for users than traditional desktop applications.

Generally, web-based applications are comprised of three elements which are a web server, an application server and a database. A web server is required to handle client requests while an application server performs the requested tasks and the database stores any information that is required. Thus, the web-based application is also known as a client-server program which consists of a client-side and a server-side and is written in different kinds of languages. For server-side programming which is responsible for storing and retrieving data, developers usually use languages such as Python, Java, Hypertext Preprocessor (PHP), Active Server Pages (ASP) and Ruby. On the other hand, for client-side programming, languages such as JavaScript, Cascading Style Sheets (CSS), and Hypertext Markup Language (HTML) are used to develop the application's front-end which displays information to the user. This is because the browser is used to execute the program in these languages. For instance, HTML is used to construct documents on the World Wide Web, CSS is used to specify the design, layout, and display formats for different devices and screen sizes of the web-based system and JavaScript is applied to basic HTML for creating interactive documents.

Nowadays, with web-based applications, our life becomes simpler and easier. Web-based applications have undoubtedly transformed our lives and become a critical tool for small and large organisations as well as individuals to achieve their goals. Indeed,



web-based applications are becoming increasingly popular and overtaking traditional desktop applications all over the world.

### 1.3 Problem Statement

A common issue that occurs among undergraduate students is time management. Many students have struggles managing their time effectively to meet their assignment deadlines and study for examinations and quizzes owing to poor time management skills (Hashim et al., 2020). Razali, Russian, Gan and Arbin (2018) point out that students nowadays frequently complain about not having enough time to accomplish all of the tasks assigned to them. When attempting to read all of the prescribed books and chapters, meet paper deadlines, and engage in extracurricular activities, university students may get overloaded with the feeling that they do not have enough time to finish all of their work adequately. In short, without proper time management, the list of their incomplete tasks will increase day by day, making it harder for them to finish all the tasks given to them.

Besides, according to Nasrullah and Khan (2015), time management has a great influence on the lives of students, especially those who are studying in higher education institutions where parent and instructor monitoring is not available. Adams and Blair (2019) highlight that students are expected to manage work-life balance with little institutional assistance, and the way higher education institutions are structured leads to peaks and troughs in student workload. Unlike the situation at the school level, students in





higher education institutions are fully responsible to decide and allocate their time for each academic task assigned (Hashim et al., 2020). However, many students fail to practice or do not know how to manage their time or handle time (Ahmad, Batool & Ch, 2019). Students frequently encounter issues such as task aversion and ambiguity, and as a result of their lack of organisational skills, they begin to procrastinate. As a consequence, students will be unable to organise their tasks according to their priorities, causing them to get easily distracted and so procrastinating (Nasrullah & Khan, 2015). Therefore, students' lack of time management skills will have a negative impact on their life and academics.



Moreover, according to Nasrullah and Khan (2015), student time management is not possible if there is no positive self-motivation, performance, ability and motivation. Every student should be able to manage their time well, which involves defining goals and priorities, implementing time management systems, and being structured in their use of time. However, although there are a range of digital tools or software for students to plan and manage their time, there is no free version time management system that enables students to set their goals. Hence, students' lack of clearly defined goals leads to low self-motivation, which further results in poor time management abilities among students.

In order to solve the problem, a web-based time management system called MyTimeMaster is proposed to allow students to plan and manage their time for academic tasks easily and effectively. Students will be able to set their goals to clearly define what they need to prioritise and stay motivated and on schedule to achieve them. Besides,





through MyTimeMaster, students can frequently review their performance and rearrange their schedule based on the data displayed in the system's dashboard, which is provided for better time management and academic performance. In addition, the system will also provide advice on time management strategies to help students better manage their time, achieve their academic goals and increase students' awareness of the importance of time management in their daily life.

## 1.4 Research Objectives

The research objectives are as follows:

- i. To identify the requirements needed in the development of a time management system for undergraduate UPSI students.
- ii. To develop a time management system that can help undergraduate UPSI students plan and manage their time easily and effectively for their academic tasks.
- iii. To evaluate the usability (ease of use) of the time management system when used among undergraduate UPSI students.

## 1.5 Research Questions

The research questions addressed in this study are as follows:

- i. What requirements are needed to develop an effective time management system for undergraduate UPSI students?
- ii. How to develop a proper time management system that can help undergraduate UPSI students in staying on track and organised in their academic tasks?
- iii. Does the time management system's usability (ease of use) meet for undergraduate UPSI students?

## 1.6 Scope of Project

The scope of this project are as follows:

- i. This system will be focusing on undergraduate UPSI students in helping them to effectively organise their academic tasks and prioritising the tasks that must be accomplished first according to importance and urgency.
- ii. This system will provide a full calendar display that allows users to view and plan their schedules based on their available time. Hence, students can easily view their scheduled time and constantly alert and ready to concentrate on the task at hand.
- iii. This system will allow users to set their goals to clearly view what they need to prioritise and stay motivated and on schedule to achieve them. Besides, this system will provide data in the dashboard to allow users to easily view their goal

achievement from time to time and make changes to their schedule for better time management as well as academic performance.

- iv. This system will provide advice on time management strategies to guide students in better managing their time and achieving their academic goals as well as increase students' understanding and awareness of the necessity of proper and effective time management in their everyday lives.

## 1.7 Significance of Study

The significance of this study are as follows:

- i. Students will be aware of their responsibility for their work and role.

Undergraduate UPSI students will be more alert to their work as they can efficiently plan and manage their time for various types of academic tasks. This is because they can easily create and prioritise a list of tasks according to importance and urgency and keep track of the progress of their academic tasks. Thus, they will not miss any important deadlines and will be responsible to spend their time wisely to complete them on time.

- ii. Students will be able to improve their productivity and work quality.

Undergraduate UPSI students can plan and organise an effective schedule that prioritises tasks that need to be accomplished first. Hence, they will be able to concentrate on one task at one time without being distracted. In other words, they will be able to give total attention to the task at hand, be more productive and produce quality work in a particular amount of time.

- iii. Students will be able to have a good quality of life.

Undergraduate UPSI students can easily control their time and keep track of their work progress. As a result, they can practice better time management skills, feel less pressured and overburdened, and be more at ease which eventually leads to a happier and good quality of life.

## 1.8 Conclusion

This first chapter provides an introduction to give an overview of the research study and the proposed time management system for undergraduate UPSI students, MyTimeMaster. In this chapter, the research background of web-based applications and problem statements focusing on students' time management are discussed. The research objectives to be accomplished and research questions to be answered at the end of the research study also have been clearly stated. This chapter also describes the scope of the proposed time management system and the significance obtained from the research study.