

Faculty of Computer Science and Information Technology

# EVENT MANAGEMENT SYSTEM

Mohd Zaireenfarid bin Bujang

Bachelor of Computer Science with Honours (Softwate Engineering) 2023

## EVENT MANAGEMENT SYSTEM

### MOHD ZAIREENFARID BIN BUJANG

This project is submitted in partial fulfilment of the requirement for the degree of Bachelor of Computer Science with Honours (Software Engineering)

Faculty of Computer Science and Information Technology UNIVERSITI MALAYSIA SARAWAK 2023

## SISTEM PENGURUSAN ACARA

## MOHD ZAIREENFARID BIN BUJANG

Projek ini merupakan salah satu keperluan untuk Ijazah Sarjana Muda Sains Komputer (Kejuruteraan Perisian)

Fakulti Sains Komputer dan Teknologi Maklumat UNIVERSITI MALAYSIA SARAWAK 2023

### UNIVERSITI MALAYSIA SARAWAK

	THES	IS STATUS ENDORS	EMENT F	ORM
TITL	EEVENTMA	NAGEMENTSYSTEM		
	ACAL	<b>EMIC SESSION:</b> 20	22/2023	
		MOHD ZAIREENFAR		ANG
		(CAPITAL LETT	ERS)	
1072-201		nall be kept at the Centre fo following terms and conditi		nformation Services, Universiti
1.	The Thesis is solely own	ed by Universiti Malaysia S	arawak	
2.	The Centre for Acade educational purposes on		is given full	rights to produce copies for
3.		ic Information Services is g	iven full righ	ts to do digitization in order to
4.	The Centre for Academ	ic Information Services is giv	-	to produce copies of this Thesis
	as part of its exchange i interlibrary loan between		er Learning In	stitutions [ or for the purpose of
5.	** Please tick ( $$ )			
	CONFIDENTIAL RESTRICTED	SECRETS ACT 1972)	nation as dicta	ounded by the OFFICIAL ated by the body or organization
$\checkmark$	UNRESTRICTED		319 19	
2	<i>v</i>		Validate	Stunder .
(AUTI	IOR'S SIGNATURI	E)	(SUPER	VISOR'S SIGNATURE)
Permai	nent Address			
Kamp	oung Bukit Kawang			
98150	), Bekenu, Miri, Sarawa	ak		
Date:	14/7/2023		Date:	17/7/2023

 Note
 \*
 Thesis refers to PhD, Master, and Bachelor Degree

 \*\*
 For Confidential or Restricted materials, please attach relevant documents from relevant organizations / authorities

### Declaration

The thesis entitled "Event Management System" and its content that submitted to Faculty of Computer Science and Information Technology (FCSIT), UNIMAS are my original work and has not been submitted previously for a degree at this or any other university/institute. To the best of my knowledge, the result of my original work under the guidance of Associate Professor Dr. Mohamad Nazim bin Jambli does not contain any material published or written by another person.

Jai

Signature:....

Name: Mohd Zaireenfarid bin Bujang

Date: 1<sup>st</sup> July 2023

#### Acknowledgement

First and first, I would want to express my deepest appreciation and praise to Allah S.W.T for the blessing of strength, patience, and ideas that I have received throughout my Final Year Project 1 and Final Year Project 2.

I would like to convey my deepest appreciation and gratitude to Associate Professor Dr. Mohamad Nazim bin Jambli, my supervisor, despite busy with his duty and responsibilities, took his precious time to counsel, care, support, and assist me in completing this Final Year Project 1 and Final Year Project 2.

My heartfelt thanks are also extended to my examiner for the help and guidance he has provided during the duration of this research. I am able to increase my knowledge with all of the feedback I receive for this project.

Last but not least, I would want to thank my family members who were with me throughout this process, providing me strength and never leaving me without advice or support when I needed it.

ABSTRACT	I
ABSTRAK	II
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Problem Statements	4
1.3 Objectives	5
1.4 BRIEF METHODOLOGY	6
1.5 Scope	6
1.6 SIGNIFICANCE OF PROJECT	6
1.7 Project schedule	7
1.8 EXPECTED OUTCOMES	8
1.9 SUMMARY	8
CHAPTER 2: LITERATURE REVIEW	9
2.1 INTRODUCTION	9
2.2 COMPREHENSIVE EVENT PLANNING	9
2.3 TIME MANAGEMENT	9
2.4 MANUAL WORK IS REQUIRED FOR THE PLANNING PROCESS	. 10
2.5 REVIEW OF EXISTING SYSTEM	
2.5.1 Planning Pod	. 10
2.5.2 nTask	. 13
2.5.3 Wild Apricot	. 15
2.5.4 Event Management System	
2.6 COMPARISON OF EXISTING SYSTEMS AND PROPOSED SYSTEM	. 20
2.7 SUMMARY	. 21
CHAPTER 3: REQUIREMENT ANALYSIS AND DESIGN	. 22
3.1 INTRODUCTION	. 22
3.2 Methodology	. 22
3.3 INITIAL PLANNING PHASE AND PLANNING PHASE	. 23
3.4 Requirements Phase	
3.4.1 User Requirements	. 24
3.4.2 Functional Requirements	. 25
3.4.3 Non-functional Requirements	. 25
3.4.5 Hardware Requirements	. 26
3.4.6 Software Requirement	. 27
3.5 Analysis and Design Phase	. 28
3.5.1 Use case diagram	. 28
3.5.2 Sequence Diagram	
3.5.3 Entity Relationship Diagram	
3.5.4 User interface design	
3.6 Implementation Phase	
3.7 TESTING PHASE	. 55

## **Table of Contents**

3.8 EVALUATION PHASE	56
3.9 Deployment Phase	56
3.10 Summary	56
CHAPTER 4: IMPLEMENTATION AND TESTING	57
4.1 INTRODUCTION	57
4.2 SOFTWARE INSTALLATION AND CONFIGURATION	57
4.2.1 XAMPP	57
4.2.2 Visual Studio Code	58
4.3 WEBSITE IMPLEMENTATION	58
4.3.1 Creating database	58
4.3.2 Connection database	
4.3.3 Create, Read, Update and Delete into or from database	60
4.3.4 Admin User Interface	
4.3.5 Event Manager User Interface	
4.3.6 Event Member User Interface	
4.4 TESTING	79
4.4.1 Functional Testing	79
4.4.2 Non-functional Testing	88
4.5 SUMMARY	
CHAPTER 5: CONCLUSION AND FUTURE WORKS	95
5.1 Introduction	
5.2 PROJECT ACHIEVEMENTS	
5.3 LIMITATION AND CONSTRAINTS	
5.4 FUTURE WORKS	
5.5 SUMMARY	
REFERENCES	99

## List of Tables

# List of Figures

Figure 1.1: FYP1 Gantt chart	
Figure 1.2: FYP2 Gantt chart	7
Figure 2.1: Homepage of Planning Pod	12
Figure 2.2: Event page of Planning Pod	12
Figure 2.3: Calendar page of Planning Pod	13
Figure 2.4: Event page of nTask	14
Figure 2.5: Meeting page of nTask	
Figure 2.6: Home page of Wild Apricot	16
Figure 2.7: Event details page of Wild Apricot	17
Figure 2.8: Registration Form in Wild Apricot	
Figure 2.9: Home page of Event Management System	19
Figure 2.10: View Event page of Event Management System	19
Figure 3.1: Iterative and Incremental Cycle Phase	23
Figure 3.2: Use case diagram of proposed system	28
Figure 3.3: Sequence diagram of add user	29
Figure 3.4: Sequence diagram of login	30
Figure 3.5: Sequence diagram of logout	31
Figure 3.6: Sequence diagram of view event list	32
Figure 3.7: Sequence diagram of add event	33
Figure 3.8: Sequence diagram of edit event	
Figure 3.9: Sequence diagram of delete event	35
Figure 3.10: Sequence diagram of view task list	
Figure 3.11: Sequence diagram of add task	
Figure 3.12: Sequence diagram of edit task	38
Figure 3.13: Sequence diagram of delete task	39
Figure 3.14: Sequence diagram of view previous event	40
Figure 3.15: Sequence diagram of delete user	41
Figure 3.16: Sequence diagram of edit user	42
Figure 3.17: Sequence diagram of add new productivity	43
Figure 3.18: Sequence diagram of edit productivity	44
Figure 3.19: Sequence diagram of delete productivity	45
Figure 3.20: ERD of proposed system	46
Figure 3.21: User interface design of Login page	47
Figure 3.22: User interface design of event list	48
Figure 3.23: User interface design of event details	49
Figure 3.24: User interface design of add event	50
Figure 3.25: User interface design of edit event details	51
Figure 3.26: User interface design of task list	52
Figure 3.27: User interface design of task details	53
Figure 3.28: User interface design of add task	54
Figure 3.29: User interface design of edit task	55
Figure 4.1: Data dictionary of EMS database	
Figure 4.2: Code to connecting database	
Figure 4.3: MySQL select command example	60

## List of Abbreviations

CSS	Cascading Style Sheets
ERD	Entity Relationship Diagram
FYP	Final Year Project
HTML	HyperText Markup Language
PHP	PHP: Hypertext Preprocessor
RDBMS	Relational Database Management System
UI	User Interface
XAMPP	X-OS, Apache, MySQL, PHP and Perl

#### Abstract

The process of planning and carrying out an event in accordance with the guidelines of project management is referred as "event management". For an event to be successful, efficient management is necessary in all circumstances. Improved outcomes and more effective management can be achieved for a company or organization by utilizing an efficient tool for managing events that is delivered through an online solution. The purpose of this project was to design a web-based solution, named as Event Management System that enables users to efficiently manage their event with minimal effort and reduces the workload of event organizers or Event Manager or event coordinator. HTML, CSS, and PHP were utilized to develop this website. The methodology that was applied throughout this project is Iterative and Incremental methodology. This methodology consists of Initial Planning, Deployment and a set of iterative phases which are Planning, Requirements, Analysis and Design, Implementation, Testing and Evaluation. These phases repeated until the product development is completed. This website will be developed to aid newly appointed event coordinators in managing small-scale events like birthdays, wedding receptions, reunion and Thanksgiving dinner or managing a big-scale event like a corporate event, such as annual dinners, department meeting. Since the event coordinators for the majority of events are constantly changing, it is difficult for newly assigned coordinators to comprehend their work instructions without personally seeking out the prior coordinators for verbal explanations and support. The system helps event organizer to manage multiple events if they want to. Besides, it also helps event organizer to track task progress that already created within the system. This system will keep previous event record in the database which it can be one of the references for Event Manager to handle the event.

#### Abstrak

Proses merancang dan melaksanakan sesuatu acara mengikut garis panduan pengurusan projek dirujuk sebagai "pengurusan acara". Untuk sesuatu acara itu berjaya, pengurusan yang cekap adalah perlu dalam semua keadaan. Hasil yang lebih baik dan pengurusan yang lebih berkesan boleh dicapai untuk syarikat atau organisasi dengan menggunakan alat dengan cekap untuk mengurus acara yang diketengahkan melalui penyelesaian atas talian. Tujuan projek ini adalah untuk mereka bentuk penyelesaian berasaskan laman sesawang, dinamakan sebagai Sistem Pengurusan Acara yang membolehkan pengguna menguruskan acara mereka dengan cekap dengan usaha yang minimum dan mengurangkan beban kerja penganjur acara atau pengurus acara atau penvelaras acara, HTML, CSS, dan PHP telah digunakan untuk membangunkan laman sesawang ini. Metodologi yang digunakan sepanjang projek ini ialah metodologi berulang dan pertambahan. Metodologi ini terdiri daripada Perancangan Awal, Penerapan dan satu set fasa berulang iaitu Perancangan, Keperluan, Analisis dan Reka Bentuk, Pelaksanaan, Pengujian dan Penilaian. Fasa ini berulang sehingga pembangunan produk selesai. Laman sesawang ini akan dibangunkan untuk membantu penyelaras acara yang baru dilantik dalam menguruskan acara berskala kecil seperti hari lahir, majlis perkahwinan, perjumpaan semula dan makan malam Kesyukuran atau menguruskan acara berskala besar seperti acara korporat, seperti makan malam tahunan dan mesyuarat jabatan. Memandangkan penyelaras acara untuk kebanyakan acara sentiasa berubah, adalah sukar untuk penyelaras yang baru ditugaskan untuk memahami arahan kerja mereka tanpa mencari secara peribadi penyelaras terdahulu untuk penjelasan dan sokongan lisan. Sistem ini membantu penganjur acara menguruskan berbagai acara jika mereka mahu. Selain itu, ia juga membantu penganjur acara membahagikan tugas kepada beberapa pasukan dalam setiap acara tertentu dan kemudian menjejaki kemajuannya. Sistem ini akan menyimpan rekod acara sebelumnya dalam pangkalan data yang boleh menjadi salah satu rujukan untuk pengurus acara yang mengendalikan acara tersebut.

#### **CHAPTER 1: INTRODUCTION**

#### **1.1 Introduction**

According to Cambridge Dictionary (2023), "event is anything that happens, especially something important or unusual or one of a set of races or competitions or event also can be defined as an activity that is planned for a special purpose and usually involves a lot of people, for example, a meeting, party, trade show, or conference". The importance of events in our society is crucial. It can be categorized as educational, social, sporting, entertaining, business, religious, and fund-raising events, among others. There are primarily TWO (2) sorts of events: small-scale and large-scale. Small-scale events can be characterized as family gatherings, more personal occasions such as birthdays, wedding receptions, reunion and Thanksgiving dinners. A corporate event, such as annual dinners, department meeting can be classified as large-scale events. In addition, there are also large-scale events or small events hosted in university and it is managed by student itself. (Printsome, 2015) also share an article for reading on how big events differ from small ones for event planner. One of the different that mentioned in the website is less time is needed to prepare for smaller events.

From determining the event's topic to select the site and activities, event planning and management in the contemporary environment demands much patience and effort especially if the intended audience is large and multiple teams are involved in the planning and execution phases. Planning an event will undoubtedly require generating ideas, determining a budget, monitoring deadlines, and more. It can be extremely intimidating, especially if it's the first time someone has been handed the role of event coordinator. Every decision requires careful consideration of numerous elements. Event management must be seen as a multidisciplinary

field of work that requires partners from different fields to work together effectively and efficiently. Strategic preparation, planning, and coordinating the execution of an event are all things that need to be done by professionals to make sure that everyone gets along well. Events have project character because they have a limited amount of time and are unique. Because of these things, "Event Management" is the process of coordinating all of the tasks and activities that are needed to put on an event, including its strategy, planning, execution, and control. This is done using the principles of event marketing and the methods of project management (Sharma et al., 2011).

Event management is the process of organizing, managing, and carrying out events of any size, from intimate meetings to massive conventions. It requires numerous abilities, including project and risk management, budgeting, contract negotiations, design, marketing, logistics, and customer service. Depending on the nature and scale of the event, event management may necessitate a team of internal and external specialists, including event planners, vendors, technical staff, security officers, and volunteers. To ensure the success of an event, Event Managers must organize every aspect in advance, coordinate with all stakeholders and vendors, manage funds and budgets, negotiate contracts, and address any problems that may develop during or after the event. When managing an event, a number processes will be carried out that are referred to as event planning. These processes include budgeting, scheduling, choosing a site or venue, and reserving any necessary permits or leases (Woodward, 2020).

The term "project management" refers to the process of supervising the completion of a project while adhering to predetermined standards and timetables. In most cases, the project manager will collaborate with the various important stakeholders to establish the general goals and criteria that must be met for the project to be considered a success. They establish a strategy that assures

the project will be finished according to the applicable dates and budget limits, as well as a team that is capable of performing activities to support those goals, and they build that team. The project manager is accountable for coordinating the work of the project's stakeholders with that of the project team, as well as monitoring the project's progress to ensure that it remains on track (10 Essential Components of Project Management, 2021).

There is a connection between project management and events management. (Repic, 2017), mentioned that managing an event is similar to managing a project in these three ways which are the first one is both of them are phasic which both of them utilize milestones to monitor progress. A project framework or event schedule is utilized in both project management and event management to ensure the seamless progression of events. Therefore, both project managers and event coordinators measure the development of a project in phases. In the course of an event, milestones are the objectives that guarantee timely completion of all tasks. There are numerous moving aspects in an event, thus it is essential to establish milestones to maintain consistent progress.

Second, both are task-focused at the macro- and micro-levels of the project. Milestones and tasks are dissimilar. A task is a modest action that contributes to the fulfilment of a milestone. Consider your list of chores. Typically, these tasks are shorter and need less time to perform. To ensure that nothing is left undone, it is advantageous to construct a task list. Lastly, each requires teamwork across department. Unfortunately, you cannot properly manage a project, event or otherwise, without working with others and collaborating. Project and Event Managers are needed to communicate and coordinate with everyone from external service suppliers to internal team members, subordinates, and superiors to whom they must report in order to do their tasks. The ability to communicate clearly and simply is essential for success in both event and project

management professions, as both need a certain degree of human resource management. It is essential to keep track of who is responsible for what, given the number of individuals involved. Due to the large number of participants involved in event management, it is advantageous to have a technique for keeping track of their deliverables to ensure that goals are reached on time. Event management systems can be viewed as a platform for event organizer or manager or coordinator to manage events. This is an online event management system, Event Management System, which is a web-based project that offer majority of the essential functionality necessary for an event management. It is really beneficial where a user can organize and track event task and its progress.

### **1.2 Problem Statements**

There are THREE (3) problem statements in this FYP that have been identified. First and foremost is there is no online repository that store the previous existing work of the event. Typically, the majority of information is stored offline, such as in paper documents or offline versions of Microsoft Excel and Microsoft Words. Some annual events or regular events are hosted by different event organizer or manager or coordinator each time. Then there might be high possibilities that someone is new without knowing anything is appoint to manage the event. This will make that person feel clueless and need to gain some information about the event from previous event organizer or manager or coordinator and also make it difficult to compare that had been done before to make the event better and run without any issues.

Next, the problem is related with the first problem which is time consuming. As the newly appointed event organizer or manager or coordinator want to gain information, he needs to find the previous event organizer or manager or coordinator to verbally exchange information about

the event or find a document in computer or file. This led to time consuming especially if the new event organizer or manager or coordinator not know previous event organizer or manager or coordinator or previous event organizer or manager or coordinator is not around that time or already leave the place and if the document is not store properly in box of file or already deleted as it already happens long time.

Lastly, the event management and task progress tracking like task to do list are done manually by paper or digital word document like Microsoft Word and use different communication medium such as Whatsapp, Microsoft Team, Signal and Telegram. In each event, usually, we will be divided into a several number of team. Then, the event organizer or manager or coordinator will delegate task for each team to do such as prepare food, prepare emcee script, do decorations and others. Then each leader will put a tick in box or cross any task that had been done by their team and report their task through group that created in any communication medium or through email. Important files for the event such as emcee script then also will be upload into that communication medium or group chat and it will hard to find if not properly organize.

#### **1.3 Objectives**

- To design a web system that enables users to efficiently manage their event with minimal effort.
- To develop a web system that able to store the previous existing work of the event, user able to divide task and track progress of event and task.
- To evaluate the usability of the web system.

#### **1.4 Brief methodology**

The methodology apply throughout this project is Iterative and Incremental Model. It consists of SIX (6) phases of cycle. Details of this methodology and the reason why to choose this are explained on the chapter 3.

#### 1.5 Scope

The scope of this project is to leverage user experience to address the issue highlighted in the project's problem statement. The system is being developed with event organizer or manager or coordinator in mind so they can use it to easily register and manage their events online and able to search previous event to refer the event details. The user can login as Admin or normal user like Event Manager, team member. Admin have special permission which is Admin can manage user through this website. This system will consist of event page where Event Manager can add, view, edit or delete event and task page which Event Manager can track current status of task given to team member. The project is web-based system which will develop using web development tools such as PHP, HTML and MYSQL for database, that offers event management functionalities such as event organizer or manager or coordinator can add event and track task progress through this site. The project will concentrate on the usability of web-based systems in terms of user interface, navigational structure, and usability.

#### **1.6 Significance of project**

The method could aid event organizer or manager or coordinator in ensuring the event run smoothly if it is used effectively. Besides, event organizer or manager or coordinator can efficiently manage multiple events if any and it can save time in communication as the event organizer or manager or coordinator can easily know the status of task. Other than that, the system can keep event details from previous years.

## **1.7 Project schedule**

Figure 1.1 is schedule of this project for FYP1.

								W	eek	10-		101 10			
No.	Project activities (FYP1)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.0	Selection of project title							]		_			-		
1.1	Search for project title														
1.2	Propose Project Title with brief proposal														
1.3	Full proposal of project title	8	6 - 16				3)	a a			5	· · · · ·		.s	8
2.0	Planning and research analysis														
2.1	Conduct interview														
2.2	Chapter 1: Introduction														
2.3	Chapter 2: Literature Review														
3.0	Design				1										,
3.1	Chapter 3: Requirement Analysis and Design														

Figure 1.1: FYP1 Gantt chart

Figure 1.2 is project schedule of FYP2 project.

		Week													
No.	Project activities (FYP2)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
4.0	Chapter 4: Implementation														
	and Testing														
4.1	Develop website														
4.2	Testing the developed														
	website														
5.0	Conclusion														
5.1	Writing Chapter 5														
6.0	FYP2 final report														
6.1	Writing FYP2 final report and														
	paper and submission														

Figure 1.2: FYP2 Gantt chart

#### **1.8 Expected Outcomes**

This project will result in a system platform with a fully-featured website that fulfils all event requirements. This will allow an event organizer or manager or coordinator can add, delete an edit event. Besides, previous events that had been created will be keep in database and an event organizer or manager or coordinator create a list of tasks and able to track status of the task.

#### **1.9 Summary**

This chapter provides additional information regarding the project proposal. The system was proposed to address the issues face by Event Manager. The objective of this project are to develop a web system that able to store the previous existing work of the event, user able to divide task and track progress of event and task, to design a web system that enables users to efficiently manage their event with minimal effort and to evaluate the usability of the web system.

#### **CHAPTER 2: LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covered a discussion of the relevant literature for this project area. This chapter analyses and evaluates FOUR (4) comparable systems available on the market including developed system. This evaluation will focus on the features, strengths and shortcomings of the system. In addition, the comparison table between FOUR (4) existing systems including developed system and discussion of the comparison also covered in this chapter.

#### 2.2 Comprehensive event planning

Event management demands meticulous planning. As the Event Manager, he or she should be familiar with all of the event's components, tasks, objectives, and timelines. This sort of design has an extensive list of tasks. This form of design requires a detailed sequence of events, a description of duties, easy-to-read timetables, and an explanation of how each plan relates to the other plans in the production schedule. When complete, this document will serve as the event's detailed map.

#### 2.3 Time management

Typically, the most difficult and complex aspect of event preparation is handling the physical document. However, the new or beginner Event Manager will feel irritated and dissatisfied because they will have to spend much more time organizing the documents. The technical requirements, scope of work, and event schedule, as well as other documents that clarify what is required, must be explicit enough to prevent misunderstanding others, especially team members.

In addition to affecting the event's quality, running out of time will need the resolution of additional issues.

#### 2.4 Manual work is required for the planning process

The difficulty with manual systems is that humans are not flawless, despite the fact that we all wish we were. Step-by-step procedures are necessary to assure the success of any endeavour, including the planning of an event. In this modern era, technology and Artificial Intelligence (AI) were extremely useful for each form of project, including event management, and should reduce the amount of manual effort required for event planning and management. The event's schedule would be delayed by manual labour. Event management required meticulous preparation and management. Many of the technologies recommended to improve this manual work like the existing of system for event management.

#### 2.5 Review of existing system

In this project, developed system which is Event Management System and THREE (3) existing systems that available market that have similar functions with developed system had been reviewed. Existing systems that been reviewed are Planning Pod, nTask and Wild Apricot.

#### 2.5.1 Planning Pod

Planning Pod is an outstanding event management application. Its primary capabilities facilitate venue management and floor layout. Planning Pod seeks to simplify the process of engaging guests, managing check-ins, handling registration administration, and processing online payments.