



Faculty of Computer Science and Information Technology

***CO-CURRICULUM SYSTEM FOR SJK CHUNG HUA NO.5***

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Bachelor of Computer Science with Honours

(Software Engineering)

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**CO-CURRICULUM SYSTEM FOR SJK CHUNG HUA NO.5**

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71956

This project is submitted in partial fulfillment of the  
Requirements for the degree of  
Bachelor of Computer Science and Information Technology

Faculty of Computer Science and Information Technology

UNIVERSITI MALAYSIA SARAWAK

# **CO-CURRICULUM SYSTEM FOR SJK CHUNG HUA NO.5**

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Projek ini merupakan salah satu keperluan  
untuk Ijazah Sarjana Muda Sains Komputer dan  
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## **ABSTRACT**

SJK Chung Hua No.5 is a primary school located in Kuching, Sarawak. Currently, the school is still using traditional excel form to record the students' co-curricular details. According to the feedback from the teachers, this method has brought many problems to the school. The limitations of using the excel form recording method has caused the inefficiency process for the co-curricular matters. Furthermore, as the current excel form recording method is using manually key in data, it may cause human error and inaccuracy of the data information. Therefore, an effective co-curriculum system is much needed for the teachers of SJK Chung Hua No.5 to overcome these problems. An online co-curriculum system is proposed with the purpose of storing and managing students' co-curricular details. The online system has provided functionalities like login authentication, co-curricular registration, generate analyze summary report and mark students' attendance function. These functions can help the co-curricular management process to become more efficient. More to say, after the system is implemented, usability testing has been carried out towards the users from SJK Chung Hua No.5. The feedback from the respondents are mainly positive, which proved that the proposed system meet the requirements and satisfaction of the users. Lastly, the limitations and future works of the proposed system are discussed. The future work will be implemented to overcome the limitations and improve the system usability.

## ABSTRAK

SJK Chung Hua No.5 ialah sebuah sekolah rendah yang terletak di Kuching, Sarawak. Pada masa ini, sekolah masih menggunakan borang excel untuk mencatat butiran kokurikulum pelajar. Mengikut maklum balas daripada guru, kaedah ini telah membawa banyak masalah kepada pihak sekolah. Keterbatasan penggunaan kaedah catatan borang excel telah menyebabkan proses ketidakcekapan dalam urusan kokurikulum. Tambahan pula, kaedah catatan borang excel semasa kemasukan data secara manual, boleh menyebabkan ralat manusia dan maklumat data yang tidak tepat. Oleh itu, sistem kokurikulum yang berkesan amat diperlukan untuk guru-guru SJK Chung Hua No.5 bagi mengatasi masalah tersebut. Sistem kokurikulum dalam talian dicadangkan dengan tujuan untuk menyimpan dan mengurus butiran kokurikulum pelajar. Sistem dalam talian menyediakan fungsi seperti pengesahan log masuk, pendaftaran kokurikulum, menjana laporan ringkasan analisis dan fungsi kehadiran pelajar. Fungsi-fungsi ini dapat membantu proses pengurusan kokurikulum menjadi lebih cekap. Lebih-lebih lagi, selepas sistem ini dilaksanakan, ujian kebolegunaan telah dijalankan terhadap pengguna dari SJK Chung Hua No.5. Maklum balas daripada responden kebanyakannya adalah positif, yang membuktikan bahawa sistem yang dicadangkan memenuhi keperluan dan kepuasan pengguna. Akhir sekali, had dan kerja masa depan sistem yang dicadangkan dibincangkan. Kerja masa hadapan akan dilaksanakan untuk mengatasi batasan dan meningkatkan kebolegunaan sistem.

## **CHAPTER 1: INTRODUCTION**

### **1.1 Introduction**

In every school, students are compulsory to participate the co-curricular activities which includes uniform bodies, societies, and sports. These activities are crucial for the students as they bring benefits to them. According to Rai (2020), co-curricular activities help the student to develop their personality such as sharpen their leadership skill, communication skill and also physical and mental health. These benefits make co-curricular activities act as an important role in students' school life. As each student must take at least 3 co-curricular activities, there will be a big challenge for the school when needs to handle for co-curricular matters for hundreds to thousands of students.

In SJK CHUNG HUA NO.5, the school management are still using the traditional way of storing students' co-curricular details. They still record their co-curricular activities detail in hardcopy by using handwriting and forms. It is inconvenient and incapable when they need to handle large number of files with a lot of time and energy.

Nowadays, technology helps to improve productivity by simplifying time-consuming tasks such as manual file retrieval and data entry (Mills, 2020). Therefore, a solution is proposed to SJK CHUNG HUA NO.5 school management which is to develop an online co-curriculum system to manage the co-curricular resources. By using a management system, this technical solution helps to minimize human errors and increase the quality of work (Ching, 2021).

Overall, in this project, an online co-curriculum system will be proposed to solve the problems faced in SJK CHUNG HUA NO.5 primary school and help them build up their school systems for management purposes by using the latest web technologies.

## 1.2 Problem Statement

According to the feedback given by the teachers from SJK CHUNG HUA NO.5, they are facing difficulties on manage large number of students' co-curricular matters. One of the problems they are facing is that it takes long time for the teachers to key in students' co-curricular details, such as attendance and each student's curricular achievement. Besides, as SJK CHUNG HUA NO.5 is still using traditional management way like record their club report in a form for hardcopy and manually key in to the excel form for sorting, the process is not efficient, and it is difficult for the teachers to search back for the previous records or access any student's profile for getting their co-curricular information.

Furthermore, teachers from SJK CHUNG HUA NO.5 are also facing problems on student co-curricular registration. Currently, students are still submitting forms for their co-curricular activities registration. It is difficult for the teachers to control the registration quota for each club and causes imbalance quota happened in some societies. In addition, the teachers are also unable to do analysis on students' participation for co-curricular activities as they do not have accurate statistic data for all students.

Therefore, a web-based co-curriculum online management system is proposed to the school which can help to manage and store students' co-curricular details. This proposed system will also help the teachers to control the quota for each club and generate summary report to improve the efficiency of work.

### **1.3 Scope**

The scope of this project covers the following:

1. Development of an online co-curriculum system that helps to manage students' co-curricular details.
2. Teachers can manage co-curricular details by writing and uploading any relatable attachments and control each club's quota for student co-curricular registration.
3. Teachers can help to record students' co-curricular's attendance and upload students' achievements to the system.
4. Admin can view the analyze summary report that generated by the system from all students.
5. Admin can manage students' and teachers' accounts and manage for co-curricular activities' profile.
6. Users like students can register for their favorite co-curricular activities and view curricular details in their profile.
7. The online system can be accessed at any place on anytime where the internet is available.

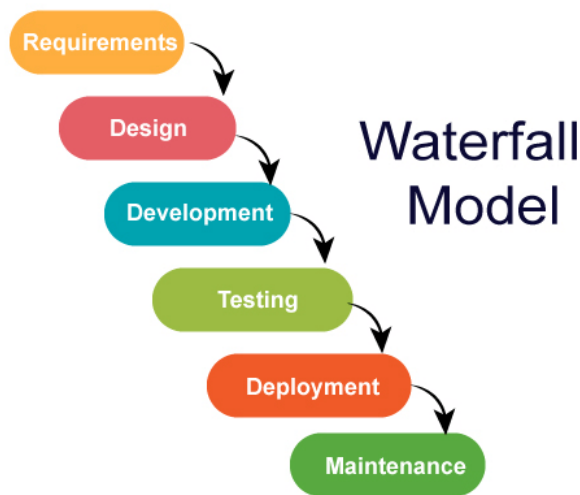
### **1.4 Aims and Objectives**

The main objective of this project is to develop an online system that helps SJK CHUNG HUA NO.5 primary school to manage their school co-curricular activities. The sub-objective includes:

- Design and implement the co-curriculum system for SJK CHUNG HUA NO.5 primary school.
- Evaluate the performance of the proposed online co-curriculum system.

## 1.5 Brief Methodology

The system development methodology that will be used in this project is called the waterfall model. Waterfall method is proceeded in a linear fashion, and it consists of sequential phases such as requirements, design, implementation, system testing, system deployment and maintenance process. According to Synopsys (2017), waterfall is best to use in situations where requirements are clearly defined and stable. Each phase must be completed before the next phase begin. Figure 1.1 below shows the phases in waterfall model.



*Figure 1.1: Waterfall Model*

### Phase 1: Requirement Analysis

The first phase of waterfall model is requirement analysis. In this phase, specification requirements of the software system need to be gathered from the clients which are the teachers from SJK CHUNG HUA NO.5 primary school. A face-to-face kick-off meeting is held with the clients to understand their current faced problems and discuss the requirements they need.

After the meeting, the requirements gathered should be sufficient to fulfill the purpose of product and serve as guideline for subsequent phases (Rollings, 2020).

### **Phase 2: System Design**

Next, there will be a system design phase. With the requirements gathered in the first phase, a prototype design of the system is developed. This prototype design allows the clients to get involved in production and fully understand how these requirements can be accomplished (Rollings, 2020). In addition, architecture of the system and software tools such as framework, database and programming language need to be confirmed in this phase to ease the implementation phase.

### **Phase 3: Implementation**

Besides, there will be an implementation stage in phase 3. In this phase, by using the software tools that were decided in phase 2, the final product of the system needs to be developed. Coding will be the main process in this stage to produce the final product that was designed in the previous state. Software development skills and programming skills need to be implemented to develop the product that meet with client's needs and solves the problems faced.

### **Phase 4: System Testing**

Once the system is built, there will be a system testing process. In this phase, the system will be tested based on the requirements and performance aspect. There will also be a debugging process if any bugs exist in the system. This can help to avoid any error when the product is