Web-Based Management System of Silat Cekak Association Universiti Teknologi Malaysia (SPPSSCUTM)

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Abstract— Silat Cekak Association Universiti Teknologi Malaysia (PSSCUTM) is the association that established on 13 July 1976 in UTM Kuala Lumpur. PSSCUTM provided a platform to student to learn silat Cekak. Currently, there is no system to manage all the activities of PSSCUTM. Members of PSSCUTM easy to forget the skills that have learned and no report available. PSSCUTM system can solve the problems by recorded all the silat skills that have learned and provide the report to member and instructor. Every registered member can access this system to know their lesson progress and instructor can know the level of member's lesson. This system can make the flow of silat lesson become more manageable and successful by providing report. It can save user's time, cost and improve the management of PSSCUTM.

Keywords- silat; silat skills; Silat Cekak Pusaka; Hanafi's silat skills

1 Introduction

One of the martial arts in this world is silat. Silat is a martial art that originated from Southeast Asian countries such as Malaysia, Indonesia and Thailand, which was pioneered by the Malays from generation to generation to protect themselves from harm or the threat of the enemy [1]. There are various styles of silat and one of the styles is Silat Cekak that has its own skills (buah). Skills are the base of the movement arts to protect themselves [2]. Silat Cekak was practiced by the royal family and senior commanders in the state during the reign of Sultan Ahmad Tajuddin of Kedah in 19th century. The earliest teacher of Silat Cekak was Commander (panglima) Ismail and was lowered to Commander Tok Rashid who then entrusted this martial art to Yahya Said and passed down to Ustaz Hanafi Haji Ahmad, then to Ishak Hitam and now handed over to the son of the late Ustaz Hanafi, Sheikh Dr. Md. Radzi Haji Hanafi as a master of Silat Cekak.

Silat Cekak Association Universiti Teknologi Malaysia (PSSCUTM) is the association that legally registered under UTM Students Affair Department (HEMA). PSSCUTM provided platform for student to silat – Silat Cekak. University's curricular subject also provided the lesson without need students to register as member of association. Students will be exposed to the origin of this martial art, its taboo and to defend themselves with this silat periphery. Every Saturday and Sunday, PSSCUTM organized learning silat class where members of PSSCUTM mostly composed of students taught about silat skills by the certified instructors.

The standard period to learn all the Silat Cekak skills is 2 years equivalent to 4 semester. First step to learn this silat, member must attend to see master of Silat Cekak himself as a sign of the blessing and the sign of the introduction to learn this silat.

In PSSCUTM management, all the attendance of members taken and recorded by filling method that will cause the loss of data. There is no member records that store the silat skills progress according to the silat's levels such as Asas (beginner), Jatuh (amateur), Potong (intermediate) and Tamat (advance) level. Therefore, one efficient management system really needed to facilitate management process. Management system is the policy framework, process and procedure that used to ensure PSSCUTM can fulfill all tasks required to achieve its objective. The best management system - easily to understand, relevant, save time and simple. Thus, one management system is needed to manage and solve the PSSCUTM problems.

2 Problem Statement

In this silat lesson, members of PSSCUTM must pass every silat level that start from beginner level until advance level. Every level contain at least 20 silat skills that members must learn before proceeding to level onwards.

Members must remember or take note the silat skills that they have learned or not. It may because members forget and will repeat the silat skills that they already learned. Even worse, they may miss the silat skills that to be learn. Members also might have difficulty to plan the learning process especially members that are in their final year. They will not be able to finish all the skills syllabus due to no have time to attend silat training on weekend so the skills are not fully complete.

There is no official record report that stated the learned silat skills and balance of the skills that influenced members not know how the progress and the instructor do not know how many members in each levels and the members progress. Any news or activities of the association may be overlooked by members because the association disseminate information using social media (Facebook and Instagram) as well as via mobile phone (WhatsApp) to the members that might cause the information not reach to the members as no centralized web-based for members to obtain information.

Management System of Silat Cekak Association Web-Based is the system that can use to monitor members progress records. This system can improve the association's management and also guide the members regarding the number of silat skills to be learned in every training. By provides the right report, it allows members to check their own records of silat skills performance. Only authorized individuals can update information in this system. Registered members can check their and update their profiles, the instructors are allowed to update performance records while administrator (supervisor/supreme council of association) can update any information in the system.

Next section will describe system analysis and design of Management System of PSSCUTM Web-Based to resolve the problems discussed in this section.

3 Literature Review

3.3 schutm.com

Silat Cekak Hanafi Universiti Teknologi Malaysia (SCHUTM) Website is developed to allow users to register as silat trainee in UTM that supervised by Silat Cekak Association Branch Johor (PSSCPHJ).

This site provides information regarding the Silat Cekak and for user registration.

3.4 sps.com

School Management System (SPS) is the application that focused towards system single databases for schools, teachers and students in this country.

This is to prevent teachers from doing repetitive data entry in multiple systems developed by various parties in the Ministry of Education (MOE). SPS also can help senior

management to monitor the performance of the MoE in education
programs, identify opportunities and problems and make decisions.

SPS provides the main page, log in, download the document and how to contact the user.

3.5 Features comparison for existing system and proposed system

Table 1 shows the comparison of features between existing systems mentioned before with proposed system.

Table 1. Features Comparison Between Existing System and Proposed System

Characteristic	SCHUTM	SPS	SPPSSCUTM
Registeration	✔	✔	✔
System Log In	X	✔	✔
Display/Update Activity	X	X	✔
User Profile	X	✔	✔
User Record	X	✔	✔
Search Engine	X	X	✔
Decision Making	X	✔	✔
Report	X	✔	✔

3.6 Features used in SPPSSCUTM

3.6.1 Decision Making

Decision making is the process of making choices by identifying a decision, gathering information, and assessing alternative resolutions [3]. This feature are used to give suggestion to the member and instructor to know the number of silat skills that to be learned in each training based on member's years of study and help show the total of the silat skills based on member's silat level.

3.6.2 Search Engine

Search engine on the World Wide Web are remotely accessible programs that let you do keyword searches for information on the Internet [4]. It can facilitated user especially admin where can search specific information quickly that can save time.

3.6.3 Report

This feature can be used for monitoring user performance, identify opportunities, problems and as evidence for user to continue learn the same silat's style at different places.

4 System Analysis and Design

4.3 System Structure

This system consists three users which are member (ahli), instructor (tenaga pengajar) and association (persatuan) as admin. Each user has different privilege in the system. The different access is to secure authentication and integrity of the data in the system. The unauthorized user is prohibited to enter the system unless they have registered (register by admin) then they can access the system according to their role.

The three users will have different roles as follow:

Persatuan (Admin): This actor is an administrator who can handle the users and the system as well. The Admin will have access to five functions as shown in Table 2

Table 2. Function Accessed By Admin

Function	Description
Login	This function enables user to login into the system. The information about the admin already in the system so they can enter the system and have an access to their provided functions to manage the system.
List	This function include the list of members, instructors, and admin. This function shows the users that can use the system and allow admin to search, edit, add, delete and print the list of users.
Display	This function allows admin to control and update the display at homepage site especially the image slider for users information.
Syllabus	This function include the list of silat skills for silat learning based on the code and level that allow admin to add, delete and print the skills.
Logout	This function allow admin to end the session from using the system and redirect to the homepage.

Member (Ahli): The second actor in this system is Member. This actor can access the system when admin add the member in system. Any member that not have added by the admin cannot access the system. This member will have five functions as shown in Table 3.

Table 3. Function Accessed by Member

Function	Description
Login	This function enables user to login into the system. The information about the member is added by the admin of the system so they can only enter the system when admin include them.
Generate Report	This function include the member's progress of learning. All the information of the learning will be shown at this function and member can view and print the report.
Manage Profile	This function allows member to edit their profile information.
Sending Message	This function allows member to sent message or communicate among members and instructor.
Logout	This function allow member to end the session from using the system and redirect to the

Function

	Description
	homepage.

Instructor (Tenaga Pengajar): The third actor in this system is instructor who has six functions as shown in Table 4.

Table 4. Function Accessed by Instructor

Function	Description
Login	This function enables instructor to login into the system. The information about the instructor is added by the admin of the system so they can only enter the system when admin include them.
Manage Training	This function provide the instructor to manage the training by update the learning progress and allow to print the progress.
User List	This function provide the list of members according to their level and allow instructor to print the lists.
Manage Profile	This function allows instructor to update their profile information.
Sending Message	This function allows instructor to sent message or communicate among members and instructor.
Logout	This function allow instructor to end the session from using the system and redirect to the homepage.

4.4 Design

The example of the SPPSSCUTM interface design are as follows:

Homepage

Figure 1. Homepage

User Profile

Figure 2. User Profile

Progress

Figure 3. Progress

Report

Figure 4. Report

5 Implementation

SPPSSCUTM is developed using the languages of HTML, PHP and CSS to provide a platform for member to access their profile and know their learning progress. It also be a platform for instructor to manage the member's performance and for admin, it can be a platform to manage all the users in centralized way. The skills are differentiated by its codes and the level of the skills. The system provides the report for all users whether admin, member and instructor to manage. The content in this system, especially admin can search the users to make it faster to get the information.

The security features will be added to keep the integrity, confidentiality, and availability of the system. All member and instructor need to be added by the admin before they can access all the functions provided according to their roles. This method is under authorization type of security in order to make sure only eligible users can enter the system.

6   Conclusion

This paper explained the design and implementation process of the Management System of PSSCUTM Web-based (SPPSSCUTM) and objectives to facilitate user and support useful features for SPPSSCUTM throughout the learning process. Each user has their specific functions to enhance them and different roles to preserve the security in this system.

6.3   Limitation

SPPSSCUTM is the web application that supporting on any device with web browser, it requires internet connection to connect to the system.

6.4   Future Work

In the future, a more comprehensive features and design to make the system more precious and interesting for all users. The securities of the system need to be improved to ensure the confidentiality, integrity, and availability of the content. Besides, a mobile app will provide more independent and easy access to user.

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