

Volunteer Activity Tracking System (VATS)

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Abstract : Prihatin Kedah is a Kedah based non-governmental organization (NGO) that rely extensively on volunteers to achieve the NGO's goals. The purpose of this project is to develop a Volunteer Activities Tracking System (VATS) that are capable of tracking the volunteers' activities, and can also provide an intermediary between NGO's administrator and volunteers. All the volunteer activities are currently handled manually through the phone via WhatsApp. Volunteers have difficulties to keep track and view the schedules of events, activities, and locations. In addition, volunteers also face difficulties to communicate with the NGO's admin to get updates of events and activities. The second problem is that it takes a lot of energy and required a lot of time to produce and generate report since they have to do it manually. They need to retrieve back and keep track of all the documents to find the information to produce a report which often lead to other problems such as duplication in data entry, data not accurate and others. The objective of the system is to serve as a platform to manage volunteer activities, to provide efficient way to track volunteer activities and to manage the process of volunteer activities easier for both volunteer and admin. Waterfall model is used in system development life cycle (SDLC) in this project which include phases of planning, analysis, design, testing, deployment and maintenance. With the system, availability of volunteers is matched with events, activities and location. Thus, allowing easy coordination of volunteers and admin also able to generate the report more accurately. The system effectively match the volunteers' preferences with the NGO's needs. Making admin task easier as the system provide a single platform to manage activities and produce report. Hence, this project provide a positive social impacts of the use of digital solution for community well-being.

Keywords: Volunteers, digital solution, community well-being

1. Introduction

Prihatin Kedah is a Kedah based non-governmental organization (NGO) that rely extensively on volunteers to achieve the NGO's goals. However, currently all activities are handled manually through the phone via WhatsApp. Volunteers have difficulties to keep track and view the schedules of events, activities, and locations. The Volunteer Activities Tracking System was developed for Prihatin Kedah a non-governmental organization (NGO) to track activities and manage the NGO's report. This

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Volunteer Activity Tracking System gives volunteers the convenience of being able to update their information whenever they want to change their address, phone number, preferred times for volunteering at any time. The system enables authorized users to access detailed volunteer information by simply logging into the system from any location with an internet connection. Thus, eliminates the need to enter data multiple times. In addition, questionnaires or other forms might no longer need to be printed, mailed, or copied, it potentially lower the cost of paper usage. This system can also lessen the workload for both NGO and volunteers. This system supports and allows volunteers to view, register, and join volunteer activities. For the admin, this system is capable of announcing upcoming activities and entering the details of the activity, such as type of activity, description, date, time, and location. Once an activity has been entered by admin, the system makes the information available to the volunteers. It lists all activities that have been scheduled, and allows the volunteer to join or view more details about the activities.

2. Materials and Methods

The project used the waterfall methodology in the System Development Life Cycle (SDLC) [1]. In waterfall, each stage of the workflow needs to be completed before moving on to the next. The entire software development process is divided into phases [2]. This methodology is chosen due to the scope and requirements to ensure the success of this project.

The first phase is the requirements where the necessary requirements for the project were gathered and documented. Next, the design for the Volunteer Activities Tracking System were prepared based on the requirements and decide how the system will work using the storyboard. The outcome of this phase is the interface design to understand the flow of the system. For the development phase, the system was develop as per requirements through coding. After completing the development phase, the result of the project will be displayed. It also includes the data conversion, testing, and evaluation of the system. After the testing phase is completed, the product is deployed and released to get feedback from the users. The last phase is maintenance. In this phase, all problems and issues are immediately fixed the system as per the user's request. The maintenance is performed in order to deliver the improvement system to the users.

3. Results and Discussion

In Volunteer Activities Tracking System volunteer and admin login using their email and password. As in **Figure 1**, the user must register first to use the Volunteer Activities Tracking System by enter their name, email password and upload image as their profile picture.

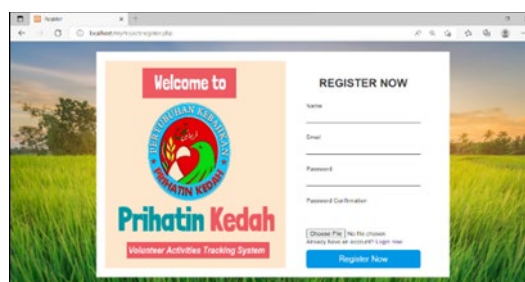


Figure 1: Register

In **Figure 2** shows the home page for admin. In this page, the admin can view the total volunteer, total activities, new upcoming activity and past activity. In this page, admin can manage the data by add, edit and delete data. Admin also can print or save the data as PDF. Besides that, admin also can search the information they want.

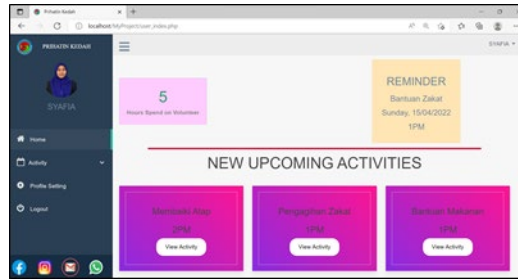


Figure 2: Home Page for Admin

In **Figure 3** shows the main page for volunteer. In this page, all new upcoming activities will show. Volunteer also know how many hours they have spends on volunteer. Volunteer also know new upcoming activity at reminder. It also shows all available activity and they can click view activity to see the details of activity.

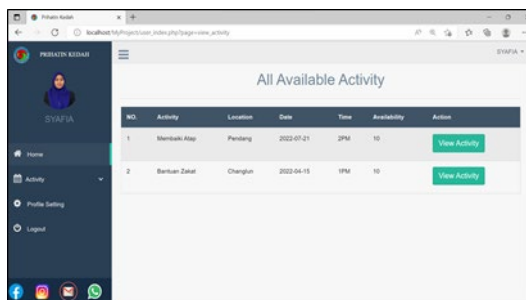


Figure 3: List of Available Activity

The user can upload their past activity by enter their time check out from activities. All the information about the activity, location, date and hours spend can be view. The volunteer also can see the image that they have uploaded. **Figure 4** shows the image after user click image in the past activity.

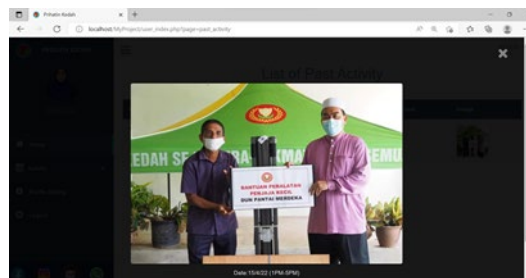


Figure 4: Image

The Volunteer Activities Tracking System (VATS) that are capable of tracking the volunteers' activities, and can also provide an intermediary between NGO's administrator and volunteers. List of activities, as well as the date, time, and place can view in the system. In addition, the system ablea to displays total number of completed activities and see how many hours they spent participating in each activity. This system was developed to track and manage all volunteer activities. Prior to the system, admin have difficulties to generate report and tracking the activities [3]. With this system, information is more organized and efficient.

4. Conclusion

Prihatin Kedah is a Kedah rely extensively on volunteers to achieve the NGO's goals. Volunteers are group of people who willingly gives their time to the good of the community [4]. The value of volunteering is widely acknowledged by both for-profit and public sector organizations [5]. For Prihatin Kedah, the manual process of registering of volunteer activities has a lot of problems. They

have difficulties in keeping track and viewing the schedules, such as when the event, activities, and location. The volunteers also found it hard to communicate with the organizer to find out about the event because they could not reach them all the time. Manually managing is very tough and consumes a lot of time [6]. Due to this problem, the Volunteer Activities Tracking System (VATS) effectively match the volunteers' preferences with the NGO's needs. Making administrative task easier as the system provide a single platform to manage activities and produce report. With this system, information is more organized and efficient. This system also able to keep track of volunteer's schedules, engage with the volunteer effortlessly, and generate the report accurately. Besides that, this system helps the volunteers to stay informed about upcoming events. In the future we plan to improve the functionality in this system according to the needs of the volunteers. We also plan to expend the functionality by creating a platform like social media in this system. By creating this new functionality, other volunteers can see the feedback, see others volunteer's activity and experience.

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