**Developing a Volunteer Coordination System for Community Service Projects**

**Project Summary**

The goal of creating the Volunteer Coordination System for community service projects is to help to manage and effectively coordinate the volunteers’ activity. This system is going to improve efficiency by issues such as automatically assigning tasks, recording volunteers’ hours as well as provide real-time updates and notification. Through consolidation of such a system, it will enhance volunteer involvement, increased time-bound project accomplishment, and volunteerism. In conclusion, the desired outcome is to increase the effectiveness of community service projects and determine the best ways to organize them, distribute resources, and make volunteers happier.

* The Streamline volunteer registering and management the processes.
* To Facilitate the efficient communication between the organizers and the volunteers.
* To Safeguard the effective corresponding of its volunteers to appropriate schemes based on the skills and its availability.
* To Track the volunteer hours and its contributions accurately.
* To Provide the real-time informs and notifications for the project activities and changes.

**Research Area**

(Qi-An and Lv, 2022) These statistics, which are abundant in insightful historical knowledge, outline the evolution of volunteerism. This learning is to investigate link among the exterior features of the volunteer facility projects and the complete assessment of the project quality, using data from 5th CYVSPC. The association among the attributes of 984 volunteer facility plans with excellent data integrity and thorough assessment was examined using the multiple linear regression model. The findings indicate that the assessment of volunteer service programs is significantly influenced by the external factors. 47.9% of the assessment outcomes of the volunteer service plans may be explained by the quantity of participants, the cost of the projects, and the duration of project formation. The enhancement of volunteer recruiting and training, the educational background of leaders, and outside collaboration should be given more consideration in the healthy growth of volunteer service initiatives.

(Li *et al.*, 2024) As a critical part of the Collectivist the Childhood League's effort with young people in "Double First-Class" colleges, volunteerism is essential to promoting communist fundamental principles and delivering political and ideological education. Nowadays, volunteer work is mostly concentrated on social service initiatives with an emphasis on public welfare, mostly due to societal pressures. In order to satisfy educational expectations, universities urgently need to build suitable volunteer service structures, as the sustainability of the volunteer services in colleges that is often restricted. This article explores the significance and requirement of creating the volunteer service teams in "Double First-Class" institutions, beginning with defining the teams' characteristics. Furthermore, it addresses the associated concerns and examines the state of formation of distinctive the volunteer service sides in the "Double First-Class" colleges.

(Zaidan, Kadir and Alhinai, 2023) The importance of volunteer work in developing communities Volunteer work is considered an important cornerstone in building society because of its value Great humanity, represented by giving and giving of all kinds, is a civilized behavior It aims to spread social cohesion and solidarity among members of society Its groups and institutions, and volunteer work are a closely linked humanitarian practice Close to all the meanings of goodness and good deeds among all human groups since The foot, but it differs in terms of its size, shape, directions, and motives Society to society and from time to time, so this study was an attempt to monitor Does volunteer work have a role in the development of societies as it is an important factor. In achieving sustainable development in all its fields. Highlighting its importance and goals Its motivations and the effects of volunteer work on the individual and society, especially that work Volunteering carries within it many social, religious and national values. Which targets the volunteer and elevates him to be an effective element in his community.

(Hasan *et al.*, 2017) Using a step-by-step methodology, the goal of this learning is to identify the maximum substantial model of the volunteer approval too desire to continue communal work. Presently, more Malaysians—new and old—stand expressing an interest in participating in local or global community service initiatives. The dearth of financial and human resources is somehow impeding this noble endeavor of helping the poor. As a result, project managers are increasingly depending on voluntary contributions to enable them to increase the number and variety of services provided without using up the meager funding that is available.

Given that there may be less volunteers available for a variety of reasons, including volunteer satisfaction, volunteers are valued resources. In accordance with the current circumstances, a example of 215 certificate holders after Malaysia's public institutions who have completed at smallest one public service plan concurred that everyone had to intend to volunteer to assist others. The results showed that work assignment and organizational support were the two characteristics that contributed most significantly to the model's ability to predict participants' intentions to continue performing community service, with work assignment being the most significant component.

**Expected practical element output**

The Web front ends essential to everyday in online interactions that consist of realistic design and its user skill to established by using the JavaScript, CSS, and HTML. The Teams that including the front-end writers and UX/UI designers to ensure accessible attractive websites. ReactJS, created by Jordan Walke and launched by Facebook in 2013, is favoured for its simplicity, speed, and large application development capabilities. Benefits include effortless maintenance, fast rendering, SEO friendliness, component reusability, and mobile app development(Wang, 2024). The back end, handling core functionalities, uses Node.js, an open-source JavaScript environment created by Ryan Dahl in 2009, known for its asynchronous, event-driven nature, and scalability.

Node.js offers benefits like asynchronous operation, single-threaded architecture, scalability, quick code execution, and cross-platform compatibility. Express.js, a Node.js backend framework, provides flexibility, a powerful routing system, and middleware support, following the DRY principle Databases, crucial for data management, are exemplified by MongoDB, a NoSQL DBMS using documents for data storage, offering load balancing, ad hoc queries, and multilanguage support(Yang, Aini and Zeng, 2024).

The Agile methodology, emphasizing collaboration and continuous improvement, divides projects into stages and promotes adaptability, human interactions, and iterative development. The course extensively covers Agile development, Node.js, and ReactJS, essential for web development. ReactJS's adaptability, large user base, and performance benefits, along with Node.js's scalability and flexibility, are highlighted. MongoDB's data management capabilities and Agile's focus on iterative progress and collaboration make the course valuable for both novice and experienced web developers, addressing diverse business concerns comprehensively(Frank and Mohamed, 2024).

**Required resources**

* + **Software Requirements:**

The software growth that stacks contains the ReactJS for the frontend and contribution to an active and receptive for user interface with its component-based construction. For the database management the MongoDB is used to providing a NoSQL answer that to ensures the flexibility and its scalability in conduct large sizes of data. The Express.js assists as the backend basis efficiently to managing the HTTP needs and directing, while it makes simpler the server-side logic. The Node.js that works as the server-side runtime atmosphere to enabling the use of JavaScript to across the complete advance stack and confirming the fast and scalable system applications. Together these knowledges to create a robust, efficient, and the cohesive platform for evolving the modern web applications(Stelea and Gavrila, 2017).

* + **Hardware Requirements:**

The hardware necessities for this organization to specify a least of 8 GB of recollection, with an importance on consuming 100 GB or added of free space to obtainable on the hard drive. The working system necessity be Windows and the CPU must be Intel-based. These conditions are vital for safeguarding the smooth process and adequate the storage capacity for requests and information. The 8 GB of the memory to ensures acceptable presentation for multitasking and consecutively memory-intensive programs, while the condition of at least 100 GB of the free hard determination space houses the installation of the large requests and the storing of the user files short of running into the storage limits. These conditions that collectively support the efficient functionality and presentation on its Windows-based systems(Naghibzadeh, 2023).

**Skills required**

To effectively grow the Volunteer Coordination System for its public service plans, a complete set of practical and structural skills is essential. The project stresses that expertise in the frontend growth using JavaScript, CSS, HTML, and ReactJS to make the user-friendly interfaces and to ensure unified online connections. Additionally, knowhow in UX/UI design is vital for conniving for appealing and available websites. On the backend, ability in Node.js and Express.js is central for applying the core functionalities ensuring the scalability, and managing HTTP requests professionally. The Database management skills is mainly with MongoDB for its NoSQL abilities that are necessary for handling the data storing and retrieval(S and M, 2023). Information of Agile methodology is essential for reiterative project growth to emphasizing association, adaptability, and incessant improvement. The Practical experience in software growth stacks including ReactJS, Node.js, Express.js, and MongoDB will enable the creation of a healthy and receptive platform. The Hardware necessities that include a minimum of 8 GB recollection and 100 GB free disk space on Windows systems to provision the smooth application process and data storage. These services and resources that together allow the growth of a efficient Volunteer Coordination System that improves volunteer management, task assignment, hour trailing, real-time communication, and its project efficiency(Shukla, 2023).

**Project Plan**

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| **S.N.** | **Task** | **Start Date** | **End Date** |
| **1** | Proposed Proposal | **10-06-2024** | **22-06-2024** |
| **2** | Introduction | **24-06-2024** | **01-07-2024** |
| **3** | Review of Literature | **02-07-2024** | **15-07-2024** |
| **4** | Methodology | **16-07-2024** | **25-07-2024** |
| **5** | Results and Discussion | **26-07-2024** | **04-08-2024** |
| **6** | Testing | **05-08-2024** | **16-08-2024** |
| **7** | Conclusion and Future Work | **17-08-2024** | **23-08-2024** |
| **8** | Final Dissertation | **24-08-2024** | **07-09-2024** |

**Gantt chart**

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| **Task** | **10-06-24** | **12-06-24** | **14-06-24** | **17-06-24** | **19-06-24** | **21-06-24** | **22-06-24** |
| Introduction |  |  |  |  |  |  |  |
| Project Aim |  |  |  |  |  |  |  |
| Project Objectives |  |  |  |  |  |  |  |
| Research Questions |  |  |  |  |  |  |  |
| Required Resources |  |  |  |  |  |  |  |
| Related Work |  |  |  |  |  |  |  |
| Final Proposal |  |  |  |  |  |  |  |

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