PLANORAMA: A DEVELOPMENT OF WEB-BASED SCHEDULING SYSTEM FOR TUP VENUE AND FACILITIES

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INTRODUCTION

The study was about the development of a user-friendly web-based scheduling system at the Technological University of the Philippines ? Manila. The system featured reports and analytics for administrators to monitor the performance and quality of their services to the stakeholders. By registering to the platform, users can unlock more features, which include booking and reserving a venue, managing reservations, and receiving the status of reservations via email. As a result, these events' overall enjoyment and productivity may be compromised, impacting the overall experience for everyone involved. The Manila campus of the University of the Philippines has 13 venues and amenities available for event use. Venues are administered by the heads of various departments and serve as the contact persons for approval of use. This system can allow them to inquire, inquire, and book venues and facilities that suit their needs and preferences. Node.js, ExpressJS, MongoDB, Postman, and Google APIs for the backend. Real-time calendar scheduling system. Data privacy and security through role-based access control.

METHOD

User input, system. outputs, updates, and user authentication data are all included in data flows. The entities include the Client, Venue Admin/Director, and School Admin. Test if the status of the viewpoints has changed. Test whether the figures on the list are same on the. list of reservation. The page that displays the list of available. venues that can be booked within TUPManila. The page that displays the list. of available Venue Reservations. Planorama is a web-based scheduling system for TUP - Manila. The system is designed to provide a range of features for event management. It is designed for a variety of scenarios, including business use. It can be used to test the reliability and suitability of the system. It also provides a set of tools to help users with scheduling and other tasks. It was designed to be used in conjunction with other event management systems. It has been developed by a group of experts from the University of Manila. Security Testing ensures the robustness and reliability of Planorama's security. Maintainability Testing ensures ease of maintenance and updates for Planorama. Capability Testing assesses the adaptability of the system to different environments. Scalability Assesses the ability to scale and scale and allow future growth. Portability Ensures the transferability of data across different environments and platforms. The diagram showcases the key processes and viewpoints of the venue admin and the databases they can access. The page contains the user role, access code, venue list, and profile. This chapter contains the methods that researchers will use in the development of the system. The User table categorizes each user/Director. The Usability testing evaluates if the Planorama system meets objectives. The School Admin table shows the key processes and interactions with the school admin and the databases they can access. The Site Admin table displays the overall user experience for Venue, School Admin, and User. The System Admin table lists the key functions that will be used to manage the system and its data. The UserDB, VenueDB, and ReservationsDB contain extensive data for each venue, user, individual venue request, schedule, and request form details. Test if the PDF copy of the Privacy Policy is available. Test whether the list of available venues is complete in the list. The user can view and manage reservations. The Scrum Master serves as a guide and

mentor for the Scrum team, facilitating adherence to the Scrums framework and principles. Test the venue list if it only shows the venue that can be booked within TUP-Manila. The proposed system is a website with an event management system. The University of the Philippines is the client. The proposed system will be used to book venues for events. The researchers tested the system using the Agile Scrum method. The results of the tests were published in a paper called Planorama: A Scrum Framework for the Web. The paper was published by the Software Development Institute (SDI) in June 2013. The study was published in the journal Software Development. It is available online at: http://www.sdi.org/planorama. The Product Owner creates and maintains a prioritized list of features and requirements called the Product Backlog. The Product Owner reviews the increment and potentially adjusting priorities for the next sprint (Adam, 2022). Sprint Retrospective: The researchers reflect on the sprint and identify areas for improvement. Expected Output is the description of how the system will react to the first step in a test. The Likert Scale is a detailed explanation of the steps that must be taken to complete the test. Test Execution Steps is a description of the process that must take place before the test is completed.

RESULTS

Test whether the calendar only shows booked dates at a specific venue. Test whether the profile of the venue admin can be updated on this page. Test if the status of the reservation has changed after making changes to it. The system is well-published with the system architecture that was used and can be easily adopted by the future handlers of the system. The super admin account will be granted to the University Information and Technology Center, which handles all the IT and Technical aspects of the University. The system?s User Interface and User Experience are easy to use and that first-time users can easily use the system. Users can click ?Book Now, " redirecting the user to login or register to the page. The ?Performance Efficiency? criterion in Table 15 got a weighted mean of 3.69 and ?Highly Acceptable? was indicated as ? high. The system responds rapidly to the request of the user due to the efficiency of the process made on its APIs. The page contains the personal information of the user that was captured on the registration page. It also features a bar graph showing the number of approved reservations per venue. Table 21 shows that the developed system obtained a weighted mean of 3.60, which is described as ?Highly acceptable? which implies that the system has satisfactorily met the criteria in the ISO 25010 software quality model. The evaluation under the ?Compatibility? criteria resulted in a ?highly Acceptable? viewpoints. The system was described as ?Highly Acceptable, gathering a weighted mean of 3.72 on its functional suitability on Table 18. Venue directors can change their status, view the form, and even delete the request. School admins can add a new user and set a role for a specific account. The Privacy Policy can be edited and deleted depending on the preference of the user. Test whether the log-out page logs out after the user logs out. Test if the PDF copy of the Privacy Policy is downloadable. The booking system will include all the available venues and facilities within the University of the Philippines ? Manila campus. The system can handle multiple requests simultaneously and will have low to no downtime when deployed on the Internet. Different user access levels and dashboards depending on the user?s account, depending on their account type. The booking system can be managed by a single person or a group of

people. It will have four functional and functional levels according to the list of access levels in the list. The system was developed for the Technological University of the Philippines - Manila. The system provided a centralized booking and reservation of facilities andVenues for the university. The results of the system evaluation are presented in this chapter. The planorama system can be easily adopted, installed, and replaced in diverse and numerous types of device. The user can fill out their email, password, confirm password, contact number, classification, college department, and organization, and the system will redirect them to the homepage. The system's backend is built with MongoDB and a RESTful API, ensuring efficient data. The system is confined to the TUP-Manila campus, with no provisions for other campuses within the University system. The overall performance of the system was assessed based on the ISO 25010 criteria for software evaluation. The project will be used to manage the system, such as adding venues, adding venue admin accounts, and booking events. It will also be used as a training tool for IT Professionals.

DISCUSSION

The developed web-based system was evaluated and described as ?Highly Acceptable? in terms of functionality and reliability based on the ISO/IEC 25010 software quality model. The developed ?Planorama: A Development Of Web-Based Scheduling System For TUP Venue And Facilities? is successful through the following features that were implemented: secure authentication of accounts through 2FA authentication implemented during the registration phase. Automated transfer of reservation of one venue to another in case of conflicts on the schedule. The web-based system was successfully developed using (a) HTML and CSS using (b) Visual Studio Code (VSC) with (c) Git and GitHub. The system was also developed using MERN (MongoDB, ExpressJS, ReactJS, & NodeJS) with Tailwind CSS and (h) RadixUI. It was also used to build the web site and to test the software. The software was developed using the Apache 2.0 protocol.