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

A Capstone Project
Presented to the Faculty of
Computer Studies Department
College of Science
Technological University of the Philippines
Ayala Blvd, Ermita, Manila

In Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science in Information System

By

ANGELO A. ADOR
JOHN ROLAND C. LUZONG
EZEKIEL KEN B. MILLAN
ELIJAH JERICHO H. QUIMSON
JOHN LOUIE C. SUPERALIS

June 2024

INTRODUCTION

The study was about the development of a user-friendly web-based scheduling system for event venues and facilities 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. The venues on the TUPManila campus can accommodate people ranging from 25 to more than 1000, depending on the setup done by the organizing team. The venue and facility scheduling system is a web- based system accessible on any Device with web browsers. Continuous   Integration (CI/CD), the system used Render, Netlify, GitHub, and Visual Studio. These venues are administered by the heads of various departments and serve as the contact persons for approval of use. The TUP Manila campus has 13 venues and amenities available for event 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 API, and Google APIs for the backend.

METHOD

The entities include the Client, Venue Admin/Director, and School Admin. User input, system outputs, updates to the main databases, and user authentication data are all included in data flows. Figure 4 shows the in-depth presentation of the process flow of the system, specifically only for the access of the venue admin. Figure 5 shows an in- depth presentation of process flow for the venue director. Figure 7 illustrates the use case of the Planorama system, which represents the expected use case. Planorama is a web-based event management system. The system is designed to be an error-tolerant system that minimizes the impact of mistakes. It is intended to be used to manage events in the Philippines. It was designed to provide an event management tool for the Philippines' government. It has been developed by the Philippine Bureau of Standards. It's designed to help the Philippines government with the development of the event management industry. It also provides an event-management tool for Filipinos. Planorama is a web-based scheduling system that allows users to schedule and book flights. The system is designed to be easy to deploy and use across different environments and platforms. Maintainability Testing ensures the ease of maintenance and updates for Planorama. The codebase, documentation, and overall adaptability to changes are assessed. The researchers record all the data required to support and identify the success of the system being developed through the performed test cases. The results of the tests are presented in the form of a test case. The User table will store data that categorize each user: Venue Admin/Director, School Admin, and User/Client. Usability testing evaluates if the Planorama system meets objectives satisfactorily and efficiently, assessing the overall user experience for Venueadmin and School Admin. The UserDB, VenueDB, and ReservationsDB contain extensive data for each venue, user, and individual venue request. A systemPLANORAMA: A DEVELOPMENT OF WEB-BASED SCHEDULING SYSTEM 57 with high interoperability can seamlessly exchange data and collaborate with other systems. Planorama is a web-based scheduling system that lets users modify venue descriptions, requests, schedules, and other features. The system is based on the Scrum framework and principles. The Scrum Master serves as a guide and mentor for the Scrums

team. The Product Owner shapes the shapes and shapes the tools that developers will utilize to create the tools. The product shapes the shape and shapes that developers use to create and test the tools and the tools they use. The tool is designed to be used for communication and development collaboration. The proposed system is a website with an event management system featuring scheduling and booking venues within the Technological University of the Philippines Manila Campus. The following are the various processes and steps to consider in the systems operation and testing: Operation Procedure, Product Backlog Creation, Sprint Retrospective, and Test Execution Steps. The results of the tests are the result of the execution steps that were done and the actual Output is the description of how the system will react to the step.

RESULTS

Test whether the calendar only shows booked dates at a specific venue. Test whether the profile information can be updated. Test if the status of the reservation has changed after making changes to it. The results from the evaluation have yielded the system an overall weighted mean of 3.60, which falls under the scale range of 3.26 4.0, which is described as Highly acceptable The systems User Interface and User Experience are easy to use and user-friendly. Users can click Book Now, " redirecting the user to login or register to the page. The criteria of Usability displayed a result of 3.58, which is described as Highly CarbuncleAcceptable The Performance Efficiency criterion in Table 15 got a weighted mean of Highly Acceptable The system responds rapidly to the request of the user due to the efficiency of the process made on its APIs. The evaluation under the Compatibility criteria resulted in a Highly Acceptable description with a weighted mean of 3.65 Venue Admins can do actions, such as change its status, view the form and even delete the request. Table 21 shows that the developed system obtained a weightedmean of 3, which is described as highly acceptable The system has satisfactorily met the terms of the criteria in the ISO 25010 software quality model. The site is designed to be a web-based scheduling system. It can be edited by uploading a new profile image and changing personal information. The system was described Highly Acceptable, gathering a weighted mean of 3.72 on functional suitability. The Privacy Policy page contains the policy with regards to the privacy of users data when using the site. The about page shows information about the site and the developers of the site, as well as the available venues for booking. The Venue Reservation System for TUP-Manila presents several limitations. The system can handle multiple requests simultaneously and will have low to no downtime when deployed on the Internet. The results of the system evaluation are presented in this chapter. The user will be asked to fill out their email and password, and once the system has confirmed their credentials, it will redirect them to the homepage. The booking system will include all the available venues and facilities within the Technological University of the Philippines Manila campus. The Planorama: Web-Based Venue

Booking System was developed to provide an efficient and effective process in booking venues within the Technological University of the Philippines - Manila. The system does not include built-in messaging or chat support, thus limiting direct communication between users and administrators. It is built with MongoDB and a RESTful API, ensuring efficient data sharing. It also includes a color scheme for a calendar of venue reservations. The Venue Reservation System for TUP-Manila offers a range of valuable capabilities.

DISCUSSION

The developed web-based system was evaluated and described as Highly Acceptable in terms of functionality and reliability. The system covers all the venues and facilities that are available for use. The website highlights the use of the ISO/IEC 25010 software-rich platform. GitHub and Netlify are used to deliver the system to the internet. The developed Planorama: A Development Of Web-Based Scheduling System For TUP Venue And Facilities is successful through the following features. The web-based system was successfully developed using (a) HTML and CSS using (b) VSC and Git and GitHub. The system was also developed using MERN ERN Stack (MongoDB, ExpressJS, ReactJS, & NodeJS) with (g) Tailwind CSS and (h) RadixUI. The project management tool was created using Notion as Project Management Tool (NPM) and Git as a hosting service.