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BSIT-4E

**EPILA; REDEFINING CLINIC APPOINTMENTS AND QUEUING**

In developing our capstone project, ePila, a mobile-based clinic appointments and queueing system, we concentrated on thoroughly addressing the needs of all stakeholders to ensure the system’s effectiveness. Our key stakeholders included patients, healthcare providers, clinic staff, IT professionals, facility management, and regulatory authorities. Patients, as the primary users, required an app that simplifies appointment scheduling, monitors queue status, and sends timely reminders to reduce uncertainty and waiting times. Healthcare providers, including doctors and nurses, needed a system that supported efficient scheduling, provided real-time updates, and minimized idle time between appointments. Clinic staff and administrators were tasked with managing patient flow, updating queues, and coordinating between patients and providers, necessitating a user-friendly system that streamlined these processes and improved overall efficiency.

To accurately gather and analyze requirements, we categorized them into functional, non-functional, and domain-specific needs. Functional requirements encompassed online appointment scheduling, real-time queue monitoring, reminder notifications, secure login, user management, and integration with existing patient records to ensure seamless data flow. Non-functional requirements focused on usability, performance, security, compatibility with various devices, and maintainability for future updates to ensure the system’s long-term viability. Domain-specific requirements included compliance with stringent data privacy regulations and support for multiple languages to cater to a diverse user base, ensuring accessibility for all.

Our requirements gathering process involved multiple methods to capture a comprehensive view of stakeholder needs. We conducted interviews with patients, healthcare providers, and clinic staff to understand their specific needs and challenges with the current system. Workshops were organized to discuss and prioritize system features, ensuring a collaborative approach that considered all viewpoints. Surveys were distributed to gather broader input on desired features and usability concerns, while document reviews provided insights into existing workflows and pain points. Use case analysis mapped out interactions with the system, and a low-fidelity prototype allowed us to visualize the design and collect actionable feedback for continuous improvement. This thorough approach ensured that the ePila system would effectively address the needs of its diverse users, making the development process both inclusive and responsive.

When we first thought of our capstone project, I assumed it would be straightforward-a system to simplify the appointment process and queuing at a clinic. However, as we progressed through each step of the system's development, I gradually realized that it was not as simple as I had anticipated. The journey was filled with challenges and mistakes, but it was through these difficulties that I learned how to work effectively as part of a team, communicate with stakeholders, and make decisions under pressure, especially when deadlines were tight.

My first task was writing the introduction for Chapter 1 of our capstone project paper, titled "ePila." I didn't expect this to be one of the most challenging parts of my work. I thought that because it was just the introduction, I could finish it quickly. However, I received numerous critiques and suggestions. At times, it was disheartening to see how many revisions were needed, but instead of letting it discourage me, I embraced it as an opportunity to learn. As I began working on it, I realized that the introduction sets the direction for the entire research paper and provides a clear understanding of why our project is important.

In addition to writing the introduction, finding references and articles directly related to our project proved to be challenging. I had to read carefully to ensure that I was interpreting them correctly. I needed to adjust and be open to new ideas, especially if they could improve our research paper. It was exhausting and sometimes frustrating when I didn't immediately get the results I wanted.

Ultimately, my most important realization was that this project was not just about creating an app or software; it was about developing a solution that would genuinely help people. I understood that it was not enough to write papers that I thought were "good enough"; they needed to truly reflect the needs and expectations of those who would use them. This entire experience pushed me to mature, not just as a student, but as a person ready to adapt and adjust to different situations.

A diagram of a software project

Description automatically generated with medium confidence

