UNIVERSITY OF CALOOCAN CITY
COMPUTER ENGINEERING DEPARTMENT

Software Design

Progress Report No. 4

Rationale of the System

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I.   Objectives

In this section, the goals in this laboratory are:

- To describe the project objective and its entire features
- To enumerate the project's rationale and its relevant to your field of discipline

II.   Methods

It is essential that the development team of a problem before the team tries to solve the problem. We list all the project deliverables, that is, the user or customer expects to see during project development. Among the deliverables may be:

- Documents
- Demonstration of function
- Demonstration of subsystem
- Demonstration of accuracy
- Demonstration of reliability, security, or performance

The customer may wish to see the entire procedure in designing the system or the overall output of what the development team can make. All of these are essential parts of the software or system development process.

General Instructions:

Prepare the proper rationale of your project. The general objective of your project should be relevant to your field or microbusiness types with the small number of employees.
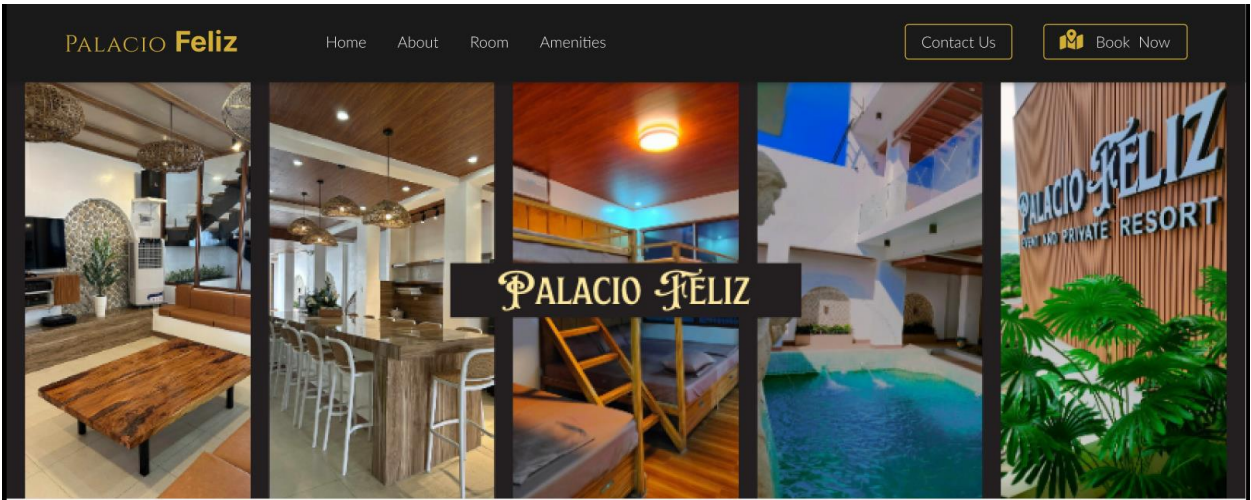
III.   Results

Rationale of the System

Many microbusinesses and service-oriented clients operate without a proper booking system and an official website. In the absence of an organized digital platform, appointments are often managed manually through phone calls, social media messages, or walk-in requests. This practice can result in scheduling conflicts, missed bookings, disorganized records, and delays in responding to customers. These issues become more challenging to manage, especially for businesses with a small number of employees handling multiple responsibilities.

Having no proper website also limits the client's online visibility and accessibility. Potential customers may find it difficult to obtain accurate information about available services, operating hours, and booking procedures. As a result, the business may lose potential clients and struggle to maintain efficient communication with its customers.

To address these concerns, this project proposes the development of a web-based booking system integrated with a functional and user-friendly website. The system will allow customers to view services, check availability, and make bookings online, while enabling the client to manage appointments efficiently through a centralized platform. By applying software design, web development, and database management principles, this project demonstrates the practical application of Computer Engineering in providing an effective solution for microbusinesses with a limited number of employees.

General Objective

The general objective of this project is to design and develop a web-based booking system and official website for a client who currently lacks a proper booking platform, in order to improve appointment management, enhance online presence, and increase operational efficiency for a microbusiness with a small number of employees.

IV. Conclusion

As a group project, the development of the web-based booking system and official website provides an effective solution for microbusinesses that lack proper digital platforms. It enables efficient appointment management, reduces scheduling errors, and improves communication with clients. The website also enhances online visibility, allowing potential customers to easily access information and book services. Through the collaborative efforts of our group, we applied Computer Engineering principles to design a system that increases operational efficiency and supports the growth of small-scale enterprises.

References

[1] P. Hu and D. Gu, "Development and Implementation of Web-Based Online Reservation System," Atlantis Press, 2013. https://www.atlantis-press.com/proceedings/isccca-13/5801