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**UNIVERSITY OF THE EAST**

COLLEGE OF ENGINEERING  
*DEPARTMENT OF COMPUTER STUDIES AND SYSTEMS*

***CIS 3303 – Project Management***

*Project Documentation*

***Pulp Dental Clinic***

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Submitted To:

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Date Submitted:

**PROJECT BACKGROUND**

The project background of a dental clinic system refers to the context and information that led to the development of such a system. The background includes the reasons, goals, and objectives that prompted the creation of the system, as well as the problems that it aims to solve. Below are some possible elements that can be included in the project background of a dental clinic system:

* Need for improved patient management: A dental clinic may have difficulties managing patient records, appointments, and billing, which can lead to inefficiencies, errors, and delays. A dental clinic system can help streamline these processes and provide better care to patients.
* Increase in demand for dental services: With an aging population and greater awareness of oral health, there may be a higher demand for dental services. A dental clinic system can help a clinic manage this increased demand more effectively.
* Advancements in technology: New technologies such as cloud computing, mobile devices, and artificial intelligence can enable a dental clinic system to be more efficient, accessible, and personalized.
* Competition from other dental clinics: Dental clinics may face competition from other clinics that offer similar services. A dental clinic system can help a clinic differentiate itself by providing better customer service, convenience, and quality.
* Regulatory requirements: Dental clinics may be subject to various regulations, such as those related to patient privacy, billing, and insurance. A dental clinic system can help a clinic comply with these requirements more easily and efficiently.

By considering these factors and others specific to the clinic, a dental clinic system can be developed to meet the needs and goals of the clinic and its patients.

**ASSUMPTIONS**

1. Master data preparation and upload will be performed by Client, using the provided template of PULP Dental Clinic.
2. Transactional data preparation and upload will be performed by Client, using the provided template of PULP Dental Clinic.
3. PULP Dental Clinic will be provided remote access to Client systems.
4. PULP Dental Clinic will not be required to be onsite, except for critical activities (ie, Blueprinting, UAT, Go-Live) and in case of escalated issues for resolution.
5. PULP Dental Clinic will be on-site for Hypercare, unless decided by Client Manager based on volume of defects anticipated.
6. Implementation Landscape will be Dev-QAS-Prod.
7. Knowledge Transfer and Training will be conducted for Client KUs and Users as a single group.

**GOALS AND OBJECTIVES**

The goals and objectives of making a dental clinic system can vary depending on the specific needs of the clinic, but some common ones may include:

* Improving patient care: The primary goal of any healthcare system, including a dental clinic system, is to improve patient care. The system should provide tools and features that enable dentists and staff to provide better, more efficient care to patients.
* Enhancing workflow efficiency: The dental clinic system should help streamline the clinic's workflow by automating tasks such as appointment scheduling, patient registration, billing, and inventory management. This can help reduce staff workload, minimize errors, and ensure that patient care is delivered in a timely and efficient manner.
* Ensuring regulatory compliance: The dental clinic system should comply with all relevant healthcare regulations and standards, including HIPAA and other privacy laws. It should also support documentation and reporting requirements, such as electronic health records (EHRs), to ensure that the clinic is meeting legal and ethical obligations.
* Improving patient engagement: A good dental clinic system should enable patients to access their health information easily, communicate with their dentist or hygienist, and make appointments online. This can help improve patient satisfaction and loyalty, as well as encourage patients to take a more active role in their oral health.
* Enabling data analysis and reporting: The dental clinic system should enable the clinic to collect and analyze data on patient care, workflow efficiency, and other key metrics. This can help identify areas for improvement, track progress over time, and make data-driven decisions about clinic operations and patient care.

Overall, the goal of a dental clinic system is to improve the quality of care provided to patients, enhance the efficiency of clinic operations, and ensure that the clinic is meeting regulatory and ethical standards.

**STAKEHOLDERS**

The following list contains potential stakeholders:

DR. RAUL ARGANZA

**Internal Stakeholder/Owner**

ROXANNE ARGANZA, RALPH ARGANZA, PATRICK ARGANZA

**Internal Stakeholder/Employee**

CLIENT

**External Stakeholder/Customer**

COMMUNITIES

**External Stakeholders**

**REQUIREMENT SCOPE**

**DATA REQUIREMENTS**

The data requirements for a dental clinic system can vary depending on the specific needs of the clinic, but some common data requirements include:

* Patient demographics: The dental clinic system should store basic patient information, such as name, address, phone number and date of birth. This information is necessary for appointment scheduling, billing, and other administrative tasks.
* Treatment plans: The dental clinic system should track the treatment plans for each patient, including the procedures performed, the materials used, and any complications or follow-up appointments. This information is necessary for monitoring progress, ensuring continuity of care, and billing patients and insurance companies.
* Staff information: The dental clinic system should store information about staff members, including their roles, schedules, and contact details. This information is necessary for managing staff assignments and communicating with other team members.

Overall, the data requirements for a dental clinic system should be designed to support effective patient care, streamline clinic operations, and comply with legal and regulatory requirements.

**FUNCTIONAL REQUIREMENTS**

Here are some functional requirements that a dental clinic system should have:

* Patient Management: The system should be able to manage patient records including their personal information, appointment schedules, and treatment plans.
* Appointment Scheduling: The system should be able to schedule appointments for patients and send appointment reminders to both patients and staff.
* Treatment Planning: The system should allow dentists to create and maintain treatment plans for each patient.
* Billing and Insurance: The system should be able to handle billing and insurance claims for the clinic's services, including the ability to generate invoices, process payments, and handle insurance claims.
* Security and Privacy: The system should have robust security measures in place to protect patient data and comply with privacy regulations.
* Communication: The system should have a messaging system or a patient portal that allows patients to communicate with their dentist or clinic staff.

**NON-FUNCTIONAL REQUIREMENTS**

Non-functional requirements for a dental clinic system may include:

* Security: The system must have proper security measures in place to protect patient data and confidential information.
* Reliability: The system must be reliable and available to use at all times, with minimal downtime or maintenance requirements.
* Scalability: The system must be able to handle an increasing number of patients and data as the dental clinic grows.
* Performance: The system must be able to perform efficiently and quickly, even during peak usage hours.
* Usability: The system must be easy to use and navigate, with clear instructions and intuitive interfaces for both patients and staff.
* Accessibility: The system must be accessible to users with disabilities, such as visual impairments or mobility limitations.
* Compliance: The system must comply with all relevant legal and regulatory requirements, such as HIPAA regulations for patient data privacy and security.
* Interoperability: The system must be able to integrate with other systems used by the dental clinic, such as electronic health record systems or billing and payment systems.
* Maintainability: The system must be easy to maintain and update, with clear documentation and support for future enhancements or modifications.
* Performance monitoring: The system must have performance monitoring tools in place to detect and address any issues or errors in real-time.

**USER INTERFACE REQUIREMENTS**

These are all tools and technologies we used in web development and making the system. **HTML** is the markup language used for creating web pages. CSS, particularly with the use of Bootstrap, is used for styling and layout of web pages. **JS**, with the use of JQuery library, is used for creating interactive and dynamic elements on web pages. **PHP**, particularly with the use of Laravel framework, is used for building the back-end of web applications. **Figma** is a design toolkit used for creating wireframes, prototypes, and UI designs. **Git and GitHub** are version control and repository tools used for managing code changes and collaboration between developers.

**CONSTRAINTS**

**REQUIREMENTS CONFIRMATION/SIGN-OFF**

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| --- | --- | --- | --- |
| **Project Manager:** Andrei Sta.Ana, staana.andreichristien@ue.edu.ph | | | |
| **Project Objectives:** The objectives of a dental clinic system may include streamlining patient registration and scheduling, improving communication between clinic staff and patients, and enhancing the overall patient experience. Additionally, the system may aim to increase efficiency in billing and insurance processing and provide accurate and timely access to patient records. | | | |
| **Main Project Success Criteria:** The main project success criteria for a dental clinic system can be defined as achieving efficient patient care and satisfaction through the use of technology. This includes reducing waiting times, improving accuracy of patient records, and enhancing communication and accessibility between patients and clinic staff. | | | |
| **Approach:**   * Within one month, develop a clear work breakdown structure, scope statement, and Gantt chart detailing the work required to complete the system. * Hold weekly progress review meetings with the project team and the sponsor. * Conduct thorough software testing per the approved test plans. | | | |
| **ROLES AND RESPONSIBILITIES** | | | |
| **Name Role Position Contact Information** | | | |
| Raul Arganza | Doctor | CEO | rauljessie2190@  yahoo.com |
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| 2022-8-10_17-50-51**Sign-Off:** (Signature of all the above stakeholders)   |  |  |  | | --- | --- | --- | | ANDREI STA. ANA | RAUL ARGANZA | LEIGH ANN QUINTON | |  | IMG_256 |  | | **Project Manager** | **Ceo** | **Business Analyst** | |  |  |  | | KURT CARVEY CADENAS | PATRICK ARGANZA | KENNETH ALVOS | |  |  |  | |  |  |  | | **Developer** | **Designer** | **Developer** | | IMG_256RALPH ARGANZA | PATRICK ARGANZA | IMG_256ROXANNE ARGANZA | |  |  |  | |  |  |  | | **Inheritor** | **Inheritor** | **Inheritor** | | | | |
| **Comments:** (Handwritten or typed comments from above stakeholders, if applicable) | | | |

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**GLOSSARY/DEFINITIONS**