**DENTAL** **APPOINTMENT RECORD SYSTEM FOR THE**

**DENTAL HEROES**

A Deployment Documentation Presented to the

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DEPLOYMENT DOCUMENT

**INTRODUCTION**

The Dental Appointment Records System is a simple tool designed to help dental clinics record and manage patient appointments. This project focuses solely on storing appointment details, making it easier for admin and staff to keep track of who is scheduled and when. Carrying and accessing the information will also be more convenient.

In many clinics, appointments are still written down on paper or in notebooks. This can lead to problems such as lost information, double bookings, or difficulty retrieving past records. These issues can slow down the clinic and affect the quality of patient service. A digital records system can solve these problems by keeping everything organized and easily accessible.

The clinic that offers general and specialized dental services such as cleanings, fillings, braces, and tooth extractions. Located in the heart of the city, the clinic serves a wide range of patients, from children to adults. With a growing number of clients, the clinic aims to improve its appointment management system to make scheduling easier and more organized.

**DEPLOYMENT PLAN**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase** | **Description** | **Start Date** | **End Date** | **Status** |
| Pre-Deployment | Provides daily, weekly, and monthly views of provider and chair availability. | MM/DD/YYYY | MM/DD/YYYY | Completed |
| Deployment | Allows dentists to record treatments, procedures, and diagnoses directly into a digital chart, including graphical tooth-by-tooth representation. | MM/DD/YYYY | MM/DD/YYYY | In Progress |
| Post-Deployment | Testing, monitoring performance, and providing client support | MM/DD/YYYY | MM/DD/YYYY | Pending |

***Table 1.*** *deployment plan*

The deployment follows a structured approach divided into three major phases—**Pre-Deployment, Deployment,** and **Post-Deployment**. Each phase ensures a smooth transition from the development stage to the live environment while maintaining system integrity and minimizing downtime. Our deployment plan prioritizes security and stability. First, we must secure **User Acceptance Testing sign-off** from clinic staff on the Staging environment no deployment proceeds until that’s done.

**DEPLOYMENT ENVIRONMENT**

**Hardware Requirements**

* Web Server (minimum): Quad-Core CPU, 8 GB RAM, 250 – 500 GB SSD Storage
* Client access devices: desktop or laptop with a modern web browser

The hardware configuration was selected to guarantee sufficient performance for simultaneous user sessions and smooth data processing within the system. We chose the server specifications based on projected user traffic and the need to efficiently handle secure online transactions. This setup ensures that the system remains fast and responsive, even during peak usage, preventing lag and maintaining a reliable user experience for all clinic staff.

**Software Requirements**

* **Database**: Microsoft SQL Server Management Studio(SSMS)
* **Development Tools**: Visual Studio Code10, VB10

We set up the production environment to mirror the testing environment precisely. This approach prevents compatibility issues during the data migration and launch phases. By using the identical database and framework versions, we ensure consistency across environments, which is key to avoiding unforeseen dependency errors once the system goes live.

**Hosting Information**

The DCRS is designed for deployment flexibility, but the recommended and most secure approach for a clinic handling sensitive patient data is On-Premise Containerized Hosting. This ensures maximum data control and compliance.

**DEPLOYMENT PROCEDURES**

Deployment follows a systematic process to ensure that the transition from the staging to the production environment occurs without data loss or downtime.

**4.1 Pre-Deployment Steps**

The Pre-Deployment Phase is absolutely crucial for minimizing risks and guaranteeing a smooth, secure transition when launching. Our focus here is three-fold infrastructure readiness, configuration finalization, and comprehensive testing validation. Getting these steps right ensures we avoid unexpected headaches, security breaches, and costly downtime when we switch to the live environment.

**4.2 Post-Deployment Steps**

* Verify major functionalities (staff and admin login, dashboard, Records, Appointment).
* Conduct user training for administrators.

The Post-Deployment Phase begins immediately after the DCRS is live in the Production environment. This phase focuses on verification, security hardening, monitoring setup, and staff enablement.

**USER TRAINING & SUPPORT**

The successful deployment of the Dental Clinic Record System (DCRS) hinges not just on its technical architecture, but on the competence and confidence of every staff member who uses it. Our comprehensive training and support plan is designed to minimize user friction, accelerate adoption, and ensure the system maintains the highest standard of data integrity from day one. This process is treated as an investment in efficiency, not merely a compliance task.

**RISK & CONTINGENCY PLAN**

|  |  |  |
| --- | --- | --- |
| **Risk** | **Impact** | **Mitigation Strategy** |
| Server downtime | High | Use reliable hosting and maintain full backups before release. |
| Database connection failure | Medium | Test database connectivity and credentials before deployment. |
| Treatment gateway | Medium | |  | | --- | |  |  |  | | --- | | Inserting some Info’s for patients. | |
| Appointing management | Medium | |  | | --- | |  |  |  | | --- | | Preparing some appointment issue for patients. | |
| User access issues | Low | |  | | --- | |  | |

***Table 2.*** *Risk management plan*

**DEVELOPMENT VERIFICATION & SIGN-OFF**

This section is dedicated to detailing the entire process for confirming that the **Dental Clinic Record System (DCRS)** genuinely meets all the established technical and business requirements. Ultimately, this leads to the crucial **formal sign-off**, which is the final authorization required before we can safely proceed with the live deployment phase. It’s our last critical checkpoint.

|  |  |  |  |
| --- | --- | --- | --- |
| **Stakeholder** | **Role** | **Signature** | **Date** |
|  | Staff |  |  |
|  | Admin |  |  |

***Table 3. key stakeholders***

Successful sign-off simply means that the deployment objectives have been fully met, the platform is confirmed as stable, and the entire project is officially approved for its full release.