**DEPLOYMENT DOCUMENTATION**

**INTRODUCTION**

This document shares the steps and setup needed to successfully launch the Sales and Employee Management System for AU Water Refilling System. It serves as a helpful resource for everyone involved, particularly development team and the stakeholder, to make the deployment process successful.

The system aims to be an efficient, dependable, and easy-to-use solution for managing sales and employee processes. This guide includes deployment plan, deployment environment, deployment procedures, pre-deployment steps, deployment execution, post-deployment steps, user-training and support, risk and contingency plan, and deployment verification and sign-off.

**Project Purpose and Objectives**

The purpose of the project is to innovate the manual process of management of the business into the computerized processes using a Sales and Employee Management System.

**Objectives**

1. Develop a Sales and Management System for the AU Water Refilling Station to be a modernize tool for management by the use of technology instead of manual processes.
2. Prepare and deploy all necessary hardware and software tools.
3. Install the requirements in the stakeholder desktop to run the developed system accordingly.
4. Check if the system works accordingly as it supposed to.
5. Migrate the manual data into the computerized system by input if needed.

**Deployment Scope**

The deployment is following the strategic approach to ensure the system is installed and working properly into the stakeholder’s business workplace.

1. **Pilot Testing.** Development team deployed the system to different devices including the development team members to check and try the functionality of the whole system before to proceed in the full deployment phase. It is to consider everyone’s perspectives for changes and figuring out the bugs and glitches inside the system when it runs.
2. **Full Deployment.** This is the final deployment to the client or the business area, before the development team conduct this process. The development team assure the system is ready to fulfill the functionality needed in processing the management for sales and employee in the AU Water Refilling Station.
3. **Blue-Green Deployment.** This step is for the maintenance, it is the deployment step the development team planned for deployment in case of maintenance or updates occurs. This step works like a replacement procedure, the old one should still work until the development of the maintenance was done and when the new version is ready the old once will replaced by the new version of the application.

**DEPLOYMENT PLAN**

The overall strategy for deployment follows a phased approach to ensure a smooth and structured implementation while minimizing disruptions to business operations.

**Deployment Strategy**

1. **Preparation**. Ensuring all system requirements, hardware, and software configurations are in place before deployment. This includes verifying that the necessary hardware meets the system specifications, ensuring that all required software is installed, and preparing any prerequisite configurations.
2. **Step-by-Step Installation**. Implementing the system in a controlled manner to avoid errors and misconfigurations. Each stage of installation from software setup, database configuration, and application deployment is carefully executed and verified before proceeding into next step.
3. **Testing and Validation**. Once the system is installed, rigorous testing is conducted to ensure that it functions correctly and meets business requirements.
   1. **Unit Testing**. Verify the individual modules or components to ensure they function as expected.
   2. **Integration Testing.** Ensuring that all modules interact correctly and the system works cohesively.
   3. **User Acceptance Testing.** Allowing designated users to test the system’s workflow and provide feedback on usability, performance, and accuracy.
   4. **Performance Testing.** Assessing system speed, responsiveness, and stability under different conditions.
   5. **Security Testing.** Identifying vulnerabilities to ensure data security and prevent unauthorized access.
4. **Post-Deployment Support.** Providing continuous monitoring, troubleshooting, and user support to maintain system efficiency.

**Deployment Schedule and Milestones**

This is the clear timelines for each phase of deployment preparing to the installing equipment, testing functionality, and maintaining the system. This helps avoid delays and ensures the AU Water Refilling Station runs effectively.

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| --- | --- | --- | --- | --- |
| Phase | Description | Start date | End date | Status |
| Pre-Deployment | Site readiness, procurement, and planning. | February 28, 2025 | March 04, 2025 | Completed |
| Deployment | Setting up hardware devices and its peripherals, install software tools. | March 09, 2025 | March 10, 2025 | Completed |
| Post-Deployment | Verifying operational functionality and security. | March 11, 2025 | March 16, 2025 | Completed |
| Support & Maintenance | Ongoing monitoring and maintenance. | March 17, 2025 | April 23, 2025 | On-going |

**DEPLOYMENT ENVIRONMENT**

This is the requirements for succeeding in deployment, the hardware and software should meet these requirements to run the system efficiently and less malfunctions.

**Hardware Requirements**

The hardware requirements ensure the capability of the system to run properly and smoothly in the desktop device with least encountered problems occur.

1. **Processor.** Intel Core i3 or higher
2. **RAM.** Minimum 8GB
3. **Hard Drive.** 256GB SSD or higher
4. **Display.** Minimum resolution ng 1024 x 768 pixels

**Software Requirements**

The software requirements ensure the compatibility of the system to run and operates accordingly.

1. **Operating System.** 10/11 (64-bit)
2. **Database Management System.** SQL Server Management Studio 19
3. **Framework.** .NET Framework 4.0

**DEPLOYMENT PROCEDURES**

This is the step-by-step guide on how to deploy the system in AU Water Refilling Station business workplace.

**Pre-Deployment Steps**

1. Organize the hardcopies of data of the business regarding the sales and employee salary, if necessary, it is for in case the client wants to insert the data from the book to computerized.
2. Check the setup of the hardware devices such as the desktop and its peripherals in the workplace of the client if adjustments needed act accordingly.
3. Install the software applications to use to support the overall functionality of the system such as the system application itself and the SQL Server Management Studio 19 (SSMS19).

**Deployment Execution**

1. Import the database bacpac file in the SSMS19 for the database of the system.
2. Run the system and check for all over functionality for assurance that everything is working appropriately.

**Post-Deployment Steps**

1. Introduce the system and discuss the proper workflow and functionalities of the system, as well as provide the user manual for guidance.
2. Monitor the running time of the system while being used by the client and take a note of primary issues faced.
3. Inform the client of what are most common errors or issues possibly encounter and the way how to resolve those issues.
4. Let the client use the system for a week, and discuss the importance of the feedback, list of issues encountered while the system is being used or any attempt on the system that is having a problem. Write any suggestion and additional features that needs to be included to the system.
5. Development team, consults the result of the client for using the system after a week and collect the list written if there’s any.

**USER TRAINING AND SUPPORT**

This shows how the development team plan to execute and provide a support for the client regarding the use of the system for the business.

**Training Schedule for Users**

The development team will conduct training sessions for the user of the Sales and Employee Management System to ensure the client understand how to use and work with it. These sessions will focus on the most critical system functionalities, including employee management, salary and income computation, report generation and exportation, and data backup protocols. The training will feature clear and organized demonstrations to help users easily grasp the system's functionalities.

By delivering these training sessions in a structured and systematic manner, the development team aims to equip users with the confidence and skills needed to operate the system efficiently. Through practical demonstrations and step-by-step explanations, all essential processes will be thoroughly covered, enabling users to maximize the system’s capabilities and improve productivity.

**Documentation for User Manual**

The development team will provide a User Manual Documentation, serving as a step-by-step guide to ensure proper usage of the system. This manual will cover all essential functions, explaining how each feature operates and how users can effectively navigate the system.

The manual will be structured in a clear and detailed format, making it easy to understand and follow. By offering a well-organized and comprehensive guide, the development team aims to assist users in optimizing the system’s features, ensuring a smoother and more efficient experience.

**Contact Support**

If the problem persists or is not listed in this guide, please contact our support team for further assistance. Provide the following information when reaching out.

**Support Email:** mail.org.noreply@gmail.com

**Note:** When sending us a concern kindly include your contact information as well so, we the development team can contact you directly as soon as we read your email to our support services mail.

**RISK AND CONTINGENCY PLAN**

This is the strategy designed to identify potential risks that could affect a project or system and outline the actions needed to prevent, mitigate, or respond to those risks. It ensures that operations can continue smoothly even when unexpected problems arise.

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| **Risk** | **Impact** | **Mitigation Strategy** |
| User Resistance | Low | Implement a mandatory demonstration, involving user from the beginning of the project. |
| Data Migration (Optional when client’s need) | Hard | Gather all physical records.  Identify critical data that needs to be transferred.  Verify that all data appears correctly in the computerized system. |
| Unexpected Device Malfunction | Medium | Always prepare a backup plan for every progress made. Some of the backup plan that can use are saving into storage device such as flash drives and external hard drive.  Regularly saving files on multiple storage devices, such as flash drives and external hard drives, ensures that critical data remains accessible even if a primary device fails. |

**Deployment and Verification and Sign-off**

This phase is the formal approval of the stakeholder and management to confirm that the system is ready for full use.

**Summary of Successful Deployment Tests**

The development team tried to deploy the system to some members devices to check the functionality of the system individually, perform a run test starting from its login to logout. Making sure every functionality, forms, and items in the system are working appropriately. In continuously checking, no issues or bugs found making the system ready for deployment and use for the business.

Even though the system works well and perform its function as it supposed to, the development team does not disregard the fact of the system having a huge room for improvement especially for future updates whenever the client needs a new feature for processing the management of the water refilling business.

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| **Stakeholder** | **Role** | **Signature** | **Date** |
| Rubylyn Balansay | Project Manager |  | Pending |
| Willjane Cipres | Client Representative |  | Pending |
| Gabriel Thomas Torneros | Capstone Adviser |  | Pending |