

Deployment Documentation for HMS



Session: 2021 – 2025

Submitted by:

Saleem Malik(2021-CS-32)
Mustafa Riaz(2021-CS-39)
Abdur Rehman(2021-CS-44)

Supervised by:

Sir: Atif Warraich

Department of Computer Science
University of Engineering and Technology
Lahore Pakistan

Table of Contents

1. Overview	3
2. System Requirements	3
3. Installation Steps	3
3.1. Download Installation Package:	3
3.2. Run Installer:	3
3.3. Database Setup:.....	3
3.4. Python Environment:	3
3.5. QR Code Designer:	3
3.6. Configuration:	3
3.7. License Activation:.....	4
4. Post-Installation Checks	4
4.1. Database Connection:	4
4.2. Functionality Testing:.....	4
4.3. User Access:	4
4.4. QR Code Integration:	4
4.5. System Performance:	4
5. Backup and Recovery	4
6. Troubleshooting	4
7. Conclusion	4

1. Overview

This deployment document outlines the necessary steps and considerations for deploying the Hotel Management System, a Python-based desktop application designed to streamline hotel operations and enhance guest services. The user interface (UI) is crafted using PyQt5, and QR codes are employed for an innovative and efficient user experience.

2. System Requirements

Ensure that the target system meets the following requirements:

- Operating System: Windows 10 or later
- Processor: Dual-core processor or equivalent
- Memory: 4 GB RAM or higher
- Storage: 20 GB free disk space
- Database: SQLite (embedded with the application)
- Screen Resolution: 1280x800 or higher
- Java Runtime Environment (JRE) installed (version compatible with the application)
- Python interpreter installed (version specified in the application documentation)

3. Installation Steps

3.1. Download Installation Package:

Obtain the installation package from the designated source, ensuring it is the latest stable release.

3.2. Run Installer:

Execute the installer and follow the on-screen instructions. Choose the installation directory and allow the installer to complete the process.

3.3. Database Setup:

The application utilizes an embedded SQLite database. No additional setup is required for the database during the installation process.

3.4. Python Environment:

Ensure that the required Python environment is installed on the system, as specified in the application documentation.

3.5. QR Code Designer:

The UI employs PyQt5 for its design, including the integration of QR codes. Ensure that the PyQt5 library is installed and functioning correctly in the Python environment.

3.6. Configuration:

Upon the first launch, the application may prompt for initial configuration settings, such as administrator credentials, hotel details, and preferences. Provide the necessary information to initialize the system.

3.7. License Activation:

If applicable, enter the license key provided during the purchase process to activate the application.

4. Post-Installation Checks

4.1. Database Connection:

Ensure that the application establishes a connection to the embedded SQLite database. Verify the creation of necessary tables and indexes.

4.2. Functionality Testing:

Conduct comprehensive testing of core functionalities, including room reservations, check-ins, check-outs, and billing. Ensure all modules work seamlessly.

4.3. User Access:

Confirm that user access controls are in place. Test administrative and staff accounts to validate permissions and restrictions.

4.4. QR Code Integration:

Verify the correct generation and scanning of QR codes within the application's UI.

4.5. System Performance:

Assess the system's performance under various loads. Identify and address any performance bottlenecks.

5. Backup and Recovery

Implement a regular backup schedule for critical application data. Ensure that backups are stored in a secure location and test the recovery process periodically.

6. Troubleshooting

Include a troubleshooting section that addresses common issues and their resolutions. Provide contact information for technical support if applicable.

7. Conclusion

This deployment document serves as a comprehensive guide for the successful installation and deployment of the Hotel Management System. Following these steps will ensure a smooth implementation, allowing users to leverage the full potential of the application for efficient hotel operations with Python and QR code integrated UI.